



**Midwestern
University**

CATALOG 2023-2024

Downers Grove, Illinois Campus

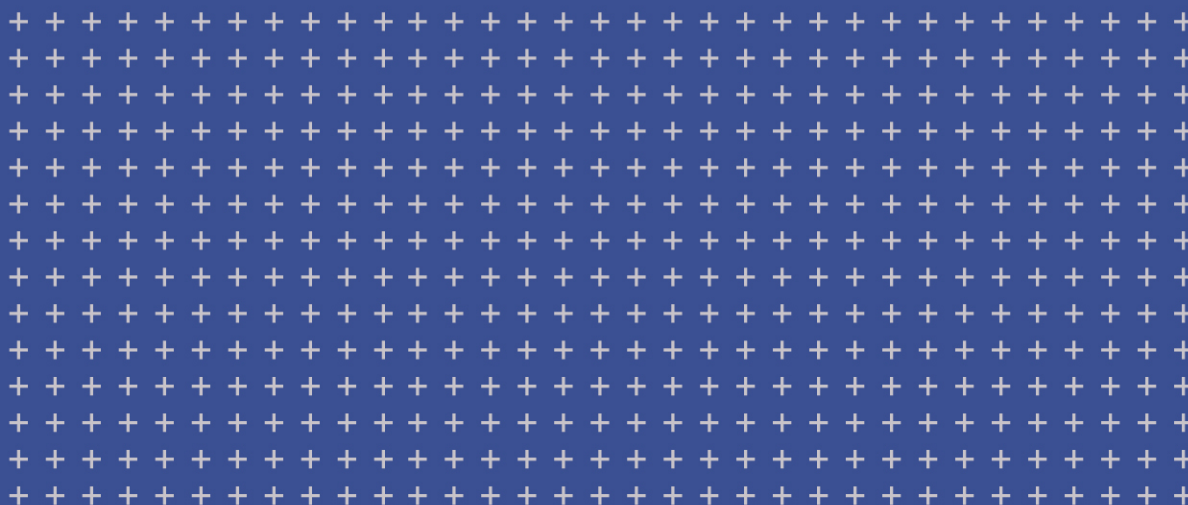


Table of Contents

Welcome Letter	6	Curriculum Outcomes	110
Governance	7	Admissions	110
Mission	8	Admission Requirements	110
Vision	8	Graduation Requirements for the Doctor of Pharmacy (Pharm.D.) Program	120
History	9	Licensure Requirements	120
Accreditation	10	Pharm D. Curriculum (Effective Summer 2021)	121
Articulation Agreements	10	Pharm D. Curriculum (Entering Fall 2016 to Fall 2018)	123
Conferral of Degrees	10	Pharm D. Curriculum (Effective Fall 2019)	125
Educational Equity Statement	10	Pharm D. Curriculum (Effective Fall 2019) Accelerated Graduation Option	128
Right to Change Requirements	10	Professional Electives	130
Facilities	11	Departments	132
Housing	11	Student Academic Policies	134
Americans with Disabilities Act Policy	12	Awards and Scholarships	144
Criminal Background Checks	12	Faculty	148
Harassment/Unlawful Discrimination	15	Courses	150
Sexual Misconduct	17	College of Health Sciences	182
Academic Policies	25	Mission	182
Grade Appeals Policy	27	Student Academic Policies	182
Withdrawal	34	Physician Assistant Program	192
Admissions	35	Mission	192
Student Services	38	Accreditation	192
Student Financial Services	40	Degree Description	193
Academic Calendar	56	Admissions	193
Chicago College of Osteopathic Medicine	62	Graduation Requirements	198
Mission	62	Certification/Licensure Requirements	199
Accreditation	62	PA Curriculum	199
Degree Description	62	Student Academic Policies	201
Admissions	63	Faculty	202
Graduation Requirements	68	Courses	202
Maximum Length to Degree Completion	68	Physical Therapy Program	209
Osteopathic Medicine Curriculum	68	Mission	209
Preclinical Elective Courses	71	Vision	209
Clinical Rotations	72	Accreditation	209
Department Descriptions	72	Degree Description	209
Student Academic Policies	76	Admissions	212
Scholarships for Enrolled Students	84	Evaluation of Student Performance	215
Midwestern University GME Consortium	84	Graduation Requirements	215
The AOA Code of Ethics	84	Licensure Requirements	216
Faculty	87	Curriculum	216
Courses	94	Electives Policy and Eligibility	219
College of Pharmacy, Downers Grove Campus	109	Student Academic Policies	219
Mission & Vision	109	Faculty	220
Core Values	109	Courses	221
Accreditation	109	Occupational Therapy Program	232
Degree Description	109		

Mission	232
Accreditation	232
Degree Description	233
Admissions	234
Evaluation of Student Performance	237
Graduation Requirements	238
Licensure Requirements	238
Curriculum	239
Student Academic Policies	242
Faculty	243
Courses	243
Clinical Psychology Program	253
Mission	253
Aims	253
Accreditation	253
Degree Description	253
Admissions	257
Licensure Requirements	260
Curriculum	261
Electives	265
Academic and Administrative Policies	265
Faculty	268
Courses	268
Speech-Language Pathology Program	286
Mission	286
Vision	286
Accreditation	286
Degree Description	287
Admissions	288
Evaluation of Student Performance	291
Graduation Requirements	291
Licensure Requirements	292
Curriculum	292
Faculty	295
Courses	295
College of Graduate Studies	303
Mission	303
Student Academic Policies	303
Master of Biomedical Sciences Program	312
Mission	312
Degree Description	312
Admissions	312
Dual Degree Options	315
Graduation Requirements	315
Curriculum (Effective Fall 2023)	316
Curriculum (Effective Fall 2022)	318
Courses	320
Master of Arts in Biomedical Sciences Program	331

Mission	331
Degree Description	331
Admissions	331
Graduation Requirements	334
Curriculum	335
Faculty	337
Courses	337
Master of Public Health	343
Mission	343
Accreditation	344
Degree Description	344
Admissions	344
Dual Degree Option	348
Curriculum (2023 Cohort and Later)	349
Faculty	350
Courses	350
Master of Science in Precision Medicine	357
Mission	357
Accreditation	357
Degree Description	357
Admissions	358
Graduation Requirements	361
Curriculum (Students Entering Prior to Summer 2023)	361
Curriculum (Students Entering Summer 2023 and Later)	363
Dual Credit Courses from Professional Programs	365
Faculty	372
Courses	373
Post-Graduate Certificate in Precision Medicine	378
Mission	378
Accreditation	379
Degree Description	379
Admissions	380
Curriculum (Students Entering Prior to Summer 2022)	383
Curriculum (Students Entering Summer 2022 and Later)	384
Faculty	387
Courses	395
College of Dental Medicine-Illinois	401
Mission	401
Vision	401
Accreditation	401
Degree Description	402
Admissions	402
Graduation Requirements	406
Licensure Requirements	406
Curriculum	407
Student Academic Policies	410
Faculty	416
Courses	420

Chicago College of Optometry	436	Licensure Requirements	447
Mission	436	Curriculum	448
Vision and Goals	436	Student Academic Policies	452
Accreditation	436	Student Administrative Policies	456
Degree Description	437	Grades	457
Admissions	437	Immunizations	459
Dual Acceptance Program	441	Faculty	461
Articulation Agreements	445	Courses	463
Graduation Requirements	447		

This catalog is published for the convenience of students at Midwestern University (MWU). It is intended to be effective as of June 1, 2023. Midwestern University reserves the right to make changes in any or all specifications contained herein and to apply such revision to registered and accepted students as well as to new admissions. No contractual rights between Midwestern University and any student are intended and none may be deemed to be created by issuance of this catalog.

Midwestern University provides equality of opportunity in its educational programs for all persons, maintains nondiscriminatory admission policies, and considers for admission all qualified students regardless of race, color, gender, gender identity, sex, sexual orientation, religion, national or ethnic origin, disability, status as a veteran, age, or marital status. Midwestern University is not responsible for loss of or damage to a student's personal property on premises owned or operated by the University, regardless of cause.

Welcome Letter

I welcome you to our Downers Grove Campus and your new academic community. The students of Midwestern University represent a dynamic group of individuals who share a passion for learning, a personal drive that prepares them for a long and successful professional healthcare career, and a commitment to excellence. Midwestern University is a special place, and our students are active participants within the campus and external community.

It is our philosophy that students learn within our team environment by studying and sharing experiences with peers while being mentored and coached by our faculty and staff. At Midwestern University, the commitment to excellence in education is the ultimate goal of mine and the entire University Leadership Team, which takes a personal interest in the quality of education while providing a safe and secure environment in which to live and learn.

What makes us special? Our foundation is the strong faculty and staff who work diligently to provide you with outstanding educational opportunities. We believe in a continuum of education that begins as you enter Midwestern and never ends. It is our mission to provide you with the best education to prepare you to serve in your chosen career.

Midwestern University makes a commitment to its students that they will be intellectually prepared to serve the community as healthcare professionals who have the skills, ability, and leadership to meet the changing demands of healthcare. I am proud to say that our students and alumni reflect the positive human values we believe are essential within the changing healthcare environment in order to make a significant contribution to society. Our students care about their patients as well as their colleagues and families.

Midwestern University provides you with dedicated faculty who excel in teaching, research, and service. The University exists to preserve, extend, and transmit knowledge and deepen understanding of the health and well-being of the human person. Our tradition of excellence is based on a long legacy of dedicated teachers and professionals who have demanded academic excellence and respect for the dignity of the whole person.

Our colleges are known for their innovation and excellence in education. As a student within the Chicago College of Osteopathic Medicine, the College of Pharmacy, Downers Grove Campus, the College of Health Sciences, the College of Graduate Studies, the College of Dental Medicine-Illinois, or the Chicago College of Optometry, I know you will find our values and beliefs to be consistent. We are one academic community working together to provide you with an outstanding education.

I welcome you to this dynamic academic community. I hope you will find your days on the Downers Grove Campus of Midwestern University to be intellectually challenging and personally rewarding.

Kathleen H. Goeppinger, Ph.D.
President and Chief Executive Officer

Governance

Board of Trustees

- The Honorable Jean L. Baxter, J.D.
Vice Chair of the Board
- Michael J. Blend, Ph.D., D.O.
- Janet R. Bolton
Chair of the Board
- Michael M. Bond, D.O. FAAFP
- Steven R. Chanen, J.D.
- Gregory J. Gaus
- Kathleen H. Goepfinger, Ph.D.
President and Chief Executive Officer
- Warren B. Grayson, J.D.
- Kenneth R. Herlin, M.A., M.B.A., CPA
Secretary/Treasurer
- Michael P. Kamradt, M.B.A.
- John Ladowicz, M.B.A.
- Kevin D. Leahy, FACHE
- Sr. Anne C. Leonard, C.N.D.
Life Trustee
- Madeline R. Lewis, D.O.
- Chara Reid-Reed, Pharm.D.
- Marilyn Kent Tapajna, M.A.T., CCC-SLP/L
- Rear Admiral Ronald D. Tucker, USN, Retired
- Nicholas C. Zagotta, J.D.

Leadership Team

- Kathleen H. Goepfinger, Ph.D.
President and Chief Executive Officer
- Matthew Sweeney, CPA, CFA
Senior Vice President and Chief Financial Officer
- Gregory O'Coynne, M.S.D.A., CPA
Vice President, Finance
- Mary W.L. Lee, Pharm.D., BCPS, FCCP
Vice President, Special Assistant to the President
- Joshua C. Baker, O.D., M.S.
Senior Vice President and Chief Academic Officer, Optometry, Pharmacy and Veterinary Education
- Kyle H. Ramsey, Ph.D.
Vice President and Chief Academic Officer, Dental and Health Sciences Education
- Yir Gloria Yueh, Ph.D.
Vice President and Chief Academic Officer, Medicine, Graduate Studies and Podiatric Medicine
- Amy Gibson, M.S., PHR, SHRM-SCP
Vice President, Human Resources and Organizational Development
- Angela L. Marty, M.A., PHR
Senior Vice President, Administration and Communications
- Barbara L. McCloud, Esq., J.D., M.B.A.
Vice President and General Counsel

- Kaila Osmotherly Dougherty, O.D., FAAO
Vice President, Clinic Operations
- Daniel Tapia, Ed.D. M.I.S.M., M.P.M., PMP and ABT
Vice President, Operations
- Thomas Boyle, D.O., M.B.A.
Dean, Chicago College of Osteopathic Medicine
- Sheri Brownstein, D.M.D., M.Ed.
Dean, College of Dental Medicine-Arizona
- Jared Chamberlain, Ph.D.
Dean, College of Health Sciences, Glendale Campus
- Mitchell R. Emerson, Ph.D.
Dean, College of Pharmacy, Glendale Campus and Downers Grove Campus
- Michael Fay, Ph.D.
Dean, College of Graduate Studies
- Alicia E. Feis, O.D., FAAO
Dean, Arizona College of Optometry
- Victoria Franks, M.Adm.
Assistant Vice President of Diversity, Equity, and Inclusion
- Carla Gartrell, D.V.M., J.D., DACVIM
Dean, College of Veterinary Medicine
- Harold J. Haering, D.M.D.
Dean, College of Dental Medicine-Illinois
- Jeffrey L. Jensen, D.P.M., FACFAS
Dean, Arizona College of Podiatric Medicine
- Lori A. Kemper, D.O., M.S., FACOFP
Dean, Arizona College of Osteopathic Medicine
- Ross J. Kosinski, Ph.D.
Dean of Students and Director of Community Outreach, Glendale and Downers Grove Campuses
- Fred D. Romano, Ph.D., M.S.
Dean, College of Health Sciences, Downers Grove Campus
- Melissa Suckow, O.D., FAAO
Dean, Chicago College of Optometry

Mission

Midwestern University's historical and sustaining philosophy dedicates the institution and its resources to the highest standards of academic excellence to meet the educational needs of the healthcare community.

Vision

Midwestern University will provide a safe and healthy environment that challenges its faculty, staff, and students to:

- Promote and maintain the osteopathic philosophy
- Nourish intellectual creativity and foster the critical thinking and communication skills that stimulate personal growth and engender professional development
- Support the teaching, scholarly activity, and service capabilities of the University
- Respect, appreciate, and acknowledge the achievements of all members of the academic community
- Embrace cultural and social diversity in the academic community and the community-at-large

History

Midwestern University: A Legacy of Growth and Development

Midwestern University has a proud and impressive history. Founded in 1900 as the American College of Osteopathic Medicine and Surgery by J. Martin Littlejohn, Ph.D., D.O., M.D. (1865-1947), the organization was incorporated in Chicago, Illinois, to train physicians in a not-for-profit environment.

Dr. Littlejohn hired talented faculty that enabled the College to establish a reputation as a leader in medical education, research, and clinical practice. The early faculty mentored their students in the art and science of osteopathic medicine while teaching surgery, principles and practices of osteopathy, anatomy, and basic science. The growth of our osteopathic college is intertwined with that of the osteopathic medical profession itself. Ever since 1874 when a country doctor, Andrew Taylor Still, announced his new theory of osteopathy and began the first college in 1892, the profession has grown in reputation and acceptance around the country and many international settings.

Today, Midwestern University is still governed by the strong principles of the founding administration and faculty. We are an independent, not-for-profit corporation organized primarily to provide graduate, and postgraduate education in the health sciences. We are dedicated to the education and development of our students, faculty, and staff in an environment that encourages learning and personal development.

From the earliest days of our founding college, the development of the University has been impressive. The vision of the University leadership is to serve the needs of society by developing the healthcare team of tomorrow, while students learn the art and science of the health professions within a safe and secure campus environment.

The Downers Grove Illinois, Campus was purchased in 1986, and the Chicago College of Osteopathic Medicine (CCOM) moved from its prior home in Hyde Park, Illinois, to this western suburb. Following the relocation of the College, the Board of Trustees voted to begin the development of new academic programs within the health sciences. The College of Pharmacy, Downers Grove (CPDG) began in 1991, the College of Health Sciences (CHS) in 1992, the College of Dental Medicine - Illinois (CDMI) in 2009, the Chicago College of Optometry (CCO) in 2014 and the College of Graduate Studies (CGS) in 2018. In 1993, the Board of Trustees unanimously approved a single, educational mission for the institution, and Midwestern University emerged. Today the Downers Grove Campus, located on 105 acres, has 19 buildings that include academic classrooms, laboratories, a state-of-the-art library and auditorium building, science building, student commons, recreation center, and student housing. The University also opened the Midwestern University Multispecialty Clinic in 2013.

add

The Glendale Arizona, Campus was founded in 1995 when the Board of Trustees approved the purchase of land and the building of this new campus. The Arizona College of Osteopathic Medicine (AZCOM) began in 1995, the College of Health Sciences in 1996, the College of Pharmacy-Glendale (CPG) in 1998, the College of Dental Medicine (CDMA) in 2006, the Arizona College of Optometry (AZCOPT) in 2008, the College of Veterinary Medicine (CVM) in 2012, the College of Graduate Studies (CGS) in 2018 and the Arizona College of Podiatric Medicine (AZCPM) in 2020. The campus has seen rapid growth in the number of buildings, academic programs, faculty, staff, and students. Today the Glendale Campus, located on 156 acres, has 50 buildings that provide for academic classrooms, state-of-the-art laboratories, student commons, auditorium, recreation center, student housing, a Multispecialty Clinic, the Dental Institute, the Eye Institute, the Animal Health Institute, and the Therapy Institute, .

Midwestern University has developed strong partnerships with healthcare providers and facilities around the country to aid in the education of students in all of its academic programs. The history of the institution is reflected in the many alumni who have successful careers and a deep affection for their college and University. The Administration and the Board of Trustees

Accreditation

Midwestern University is accredited by the Higher Learning Commission (230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411; 800/621-7440; www.higherlearningcommission.org).

Please refer to the specific college sections of this catalog for further information on program and professional accreditation.

Midwestern University is an institutional participant in the SARA Initiative.

Articulation Agreements

Midwestern University has agreements with Arizona State University, Arizona Christian University, Aurora University and Grand Canyon University. In addition to these articulation agreements, college-specific agreements are included in the college subsections of the Catalog.

Conferral of Degrees

The Illinois Board of Higher Education has approved all current degree programs at Midwestern University's Downers Grove Campus. All degrees are conferred by the authority granted by this Board.

Educational Equity Statement

Midwestern University maintains a policy of nondiscrimination for all students regardless of race; color; religion; creed; national origin or ancestry; ethnicity; sex (including pregnancy); gender (including gender expression, gender identity; and sexual orientation); marital status; age; disability; citizenship; past, current, or prospective service in the uniformed services; genetic information; or any other protected classes recognized by state or local laws, or any other characteristic protected under applicable federal, state, or local laws.

Midwestern University is committed to equity, inclusion and diversity in educational services and employment practices. Midwestern University curriculum, programs, and services will promote respect and appreciation for cultural diversity and inclusion with an awareness of the rights and responsibilities of individuals as members of a global society. University employees and students have a responsibility to contribute to an environment for learning and working that encourages and enhances the valuing of equity, enthusiasm for diversity, and passion for respectful interaction.

Right to Change Requirements

This Catalog is not a complete statement of all applicable procedures, policies, rules, and/or regulations. Midwestern University reserves the right to change the Catalog or any University policies or procedures from time to time. Those changes include, but are not limited to, changes to the calendar; admission and degree requirements; fees; procedures, policies, and/or regulations; course offerings, contents, formats, delivery methods and modalities, and other pedagogical methods; programs, including objectives and mission and vision statements; academic schedules and scheduling; class schedules and scheduling; offering patterns; events; class offerings and availability (including cancelling scheduled classes); events; and other academic activities. The

University may change, modify, or alter, with or without notice, any information contained in the Catalog, Student Handbook, or other issued materials or information at its sole discretion. Students are responsible for understanding all requirements of the University, making themselves aware of any changes, and conforming to those changes. Tuition and fees are set regardless of any change made by Midwestern University.

Facilities

Students enjoy a 105-acre campus in Downers Grove nestled serenely within a rolling, wooded setting. The campus features the following facilities:

- Littlejohn Hall, the library technology center with extensive book, journal, and electronic collections linked by a computerized system, a medical informatics laboratory, a large multi-sectional auditorium and comfortable lounge and study areas.
- Alumni Hall, an academic facility with state-of-the-art osteopathic manipulative therapy, physical therapy and occupational therapy labs, classrooms, research facilities, and faculty offices.
- Centennial Hall composed of a pharmacy practice laboratory, three research laboratories, and two 258-seat lecture halls/classrooms.
- Recreation and Wellness Hall featuring a fully equipped weight room, an aerobic exercise room, racquetball/handball courts, a gymnasium, craft room, and music room. Additional recreational facilities include athletic fields for intramural sports.
- The six-story Redwood Hall features the Dorothy and Ward Perrin Interfaith Chapel, kitchens, classrooms, an auditorium, and residence hall rooms.
- The Commons student center houses the campus bookstore, mailroom, a full-service dining hall, coffee shop, computer lab and administrative offices.
- Dr. Arthur G. Dobbelaere Support Services Hall provides space for administrative offices including Student Financial Services, the Registrar's Office, Alumni Relations, Media Resources, Business Services, Information Technology, and more.
- Science Hall, a five-story academic building with modern classrooms, research laboratories, dental simulation clinic, student testing center, and faculty offices.
- Cardinal Hall, the 137,000 square-foot building includes a large auditorium space that can be used for campus-wide ceremonies and also be divided into five large lecture halls. The building also includes additional classrooms, a simulation center, and academic office space.
- White Oak Hall, named in honor of the official state tree of Illinois, features classrooms, offices, and fully-equipped optometry laboratories. The building also includes a 24-hour student study room with a separate entrance, kitchenette, and vending machines.
- The Midwestern University Multispecialty Clinic provides a state-of-the-art educational experience for Midwestern students while also meeting the community demand for a wide-range of patient care. The clinic is located approximately 10 minutes from the Downers Grove campus at 3450 Lacey Road, Downers Grove, IL. The six-story building includes the Dental Institute, Family Medicine, Eye Institute, Speech-Language Institute, and Physical Therapy Institute.

Housing

Redwood Hall I

Redwood Hall I is a modern student residence facility that features 80 single occupancy residence hall rooms. Each room includes a bathroom shared by two adjoining residents, air conditioning, wireless Internet, DirecTV, wall-to-wall carpeting, bed, built-in closet, dresser, desk and chair, and wardrobe. Five single occupancy units are available with private bathrooms.

Redwood Hall II

Redwood Hall II features a variety of floor plans, with single occupancy rooms for 131 residents. Each room includes a private or shared bathroom, air conditioning, wireless Internet, DirecTV, wall-to-wall carpeting, bed, built-in closet, dresser and desk and chair. Redwood Hall II also houses the Dorothy and Ward Perrin Interfaith Chapel.

The Pines Apartments

The Pines Apartments are tucked away between two groves of trees, providing both the convenience of on-campus living and the privacy of an apartment. Each of the 48 one-bedroom apartments offers 500 square feet of living space, Internet access, DirecTV, kitchenette with stove and refrigerator, and central air conditioning and heating units. Apartments are furnished by student occupants.

For further information regarding on-campus housing on the Downers Grove Campus, students may contact the Office of Residential Life at 630/971-6400.

Americans with Disabilities Act Policy

Midwestern University makes reasonable accommodations for the physical and mental limitations of students, faculty and staff to the extent that such accommodation does not impose an undue hardship on the conduct of its business. The University's planning includes reasonable physical accommodation to the special needs of disabled individuals and disabled veterans, including access to the buildings, utilization of the restroom facilities, and mobility requirements within building and parking locations.

Disabled students' rights are protected under Section 504 of the Rehabilitation Act of 1973 and the Americans With Disabilities Act of 1990 (ADA). It is the policy of Midwestern University to ensure that no qualified student with a disability is excluded from participation in or subjected to discrimination in any University program, activity, or event.

Criminal Background Checks

Due to growing nationwide concerns regarding the suitability of today's healthcare professionals, many hospitals, healthcare systems, clinics, physician offices, or pharmacies providing healthcare services require disclosure of an individual's criminal history. In addition, many state statutes also require disclosure of an individual's criminal history in order to apply for certain health professional certificates, registrations, and licenses. Existence of a criminal history may subject an individual to denial of an initial application for a certificate, registration, or license to practice in a clinical setting or result in the revocation or suspension of an existing certificate, registration, or license. In response to this growing trend, Midwestern University requires students to submit to criminal background checks.

It is the policy of Midwestern University that all accepted students must submit to a criminal background check prior to matriculation. In addition, students who remain enrolled must submit to a criminal background check as needed to remain eligible for continued participation and/or to participate in clinical rotations. A criminal background check may necessitate one or more of the following: 1) a standard criminal background check conducted through an approved background check agency, 2) a fingerprint background check conducted by an approved agency, in which the prints are submitted to both State Police and the FBI database and/or 3) an International Police Clearance. The procedure utilized to conduct the background check will be based upon the individual's residency status, country of origin, time in residence in the United States and specific program requirements. In accordance with the laws of the State of Illinois, CCOM students are required to undergo fingerprinting as part of the criminal background check process. Students in other programs may also be required to undergo fingerprinting. The criminal background check involves obtaining an authorization from a

matriculating or current student that allows the University to obtain the student's individual criminal history. The results of the background check are reviewed by the Dean of Students to determine whether or not there is a record of misdemeanor and/or felony convictions. If there is a positive record, the Dean of Students will inform the appropriate College Dean and the Director of University Risk Management so the University can make a determination whether the criminal history will negatively impact the student's admission status or ability to complete the practical training/rotation requirements of the degree program. Criminal background checks are conducted through the Office of Student Services as part of the initial student matriculation process and on an as-needed basis thereafter while a student is actively enrolled at Northwestern University.

1. All matriculating students must complete the Criminal Background Release and Consent Form to conduct the criminal background check. All newly admitted students who have submitted a matriculation deposit are provided with access to a copy of the University policy and the Criminal Background Release and Consent Form. By going to the Northwestern University website (<http://www.northwestern.edu>) and selecting MWUNET, the student can complete the Consent Form, which can be found under the Student Services Tab on the portal. The Policy can be accessed by logging into the Student Handbook under the Resource section and selecting 'Criminal Background Check Policy'.
 - a. Incoming pharmacy, optometry, veterinary medicine, dental, and osteopathic medicine students will complete a criminal background check through the appropriate application agency (PharmCAS, OptomCAS, ADEA, VMCAS, or AACOMAS). The results of those background checks will be forwarded to Northwestern University.
 - b. Incoming international students must complete an International Police Clearance, either under the guidance of Northwestern University or their application agency. If the international student has not also resided in the United States within the seven year period prior to matriculation, the student must also complete a criminal background check. The International Police Clearance must be initiated by the student according to the guidelines of the country from which the Clearance is required.
 - c. An incoming student, who is a US citizen or a permanent resident, will be required to complete an international police check if the student has not resided in the US within the seven year period prior to matriculation.
 - d. Incoming students must complete the criminal background check requirement prior to matriculation. For students who are admitted close to their matriculation date, or for students whose situation may necessitate an extension, the criminal background check must be completed by the end of the first month of the first quarter of enrollment for their program. Failure to complete the background check within the stated timeframe jeopardizes their continued enrollment, and the student may be required to take a mandatory leave of absence.
2. The Office of Student Services will contract with a professional service to conduct the criminal background check.
3. The Dean of Students will review all criminal background reports and determine whether or not a misdemeanor or felony conviction record exists. If a felony or misdemeanor conviction exists, the Dean of Students will conduct a criminal background investigation. The investigation may include any of the following components:
 - a. Request for additional detailed information about the positive criminal background check report. This may entail one or more meetings with the student.
 - b. Collection of additional data, e.g., Federal Bureau of Investigation fingerprints and report, concerning the positive criminal background check report. Following the criminal background investigation, the Dean of Students, in consultation with the College Dean (or their designees), will determine whether or not the student should be disqualified from matriculation or continued enrollment. A record of criminal activity will not automatically disqualify a student from enrollment or continued enrollment. The University will consider such factors as (but not limited to) the nature of the crime, the age of the individual at the time the crime was committed, length of time since the criminal activity, any fines, sanctions or convictions, the nature of the clinical program and the relatedness of the conviction, and

whether the University will be able to provide appropriate professional clinical training to the student. Students who are permitted to matriculate with a positive criminal background check are required to sign a waiver stating the student's understanding of the possible negative impact of the student's background check on their education, postgraduate training and licensure.

4. Failure to disclose criminal activity or material misrepresentation of information by an incoming student is deemed to be falsification of the application and may result in denial of admission, matriculation and/or dismissal from the program and University. Failure to disclose criminal activity or material misrepresentation of information by an enrolled student is deemed to be a violation of the student Code of Conduct and may result in dismissal from the program and University. Incoming and enrolled students must disclose any criminal activity, including misdemeanor or felony charges/convictions to the College Dean and the Dean of Students.
5. Failure of the student to present appropriate forms to the Office of Student Services for the purpose of conducting criminal background checks when requested will bar the student from initial matriculation and/or continued enrollment.
6. Students with a positive criminal background check are individually responsible for checking the licensing and certification requirements in any state where the student is interested in participating in a postgraduate residency training to determine whether or not their criminal background will be a barrier to participation.
7. Students are required to disclose to the Dean of Students and appropriate College Dean any arrests, criminal charges, or convictions against them during their entire period of enrollment as a student at Midwestern University. Disclosure must be made immediately after the incident that resulted in charges so the University can assess the impact of the incident on the student's academic progression. Such arrests, criminal charges, or convictions may negatively impact a student's ability to obtain and/or complete clinical rotations or preceptorships, post-graduate residency placement or licensure.
8. Midwestern University does not guarantee clinical rotations, post-graduate residency placement or licensure for students who have a positive criminal history. Clinical rotation placement, post-graduate residency placement, and licensure are governed by separate entities who use their own specific set of standards that may be different than those used by Midwestern University. In such cases, the University confidentially shares information about the student's positive criminal history with potential preceptors and practice site representatives as necessary and on a need-to-know basis. This may include releasing a copy of the original criminal background check report for review. This gives the preceptor and site representatives an opportunity to decide whether the student is acceptable to the site. For this reason, scheduling and completion of practical training/rotations and graduation may be delayed. In some instances, it will not be possible to arrange for practical training/rotations at specific sites. Under these circumstances, the college/program will work with the student to find a possible clinical rotation site that will accept a student with a positive criminal background check.
 - a. If this information is known by the University prior to the student's matriculation, the Academic Dean (or their designee) will meet with the potential student to discuss the consequences of the positive criminal background investigation on the student's ability to complete degree requirements, post-graduate residency placement and licensure so that appropriate action can be taken.
 - b. If this information is known by the University after the student's matriculation, the College Dean (or their designee) will meet with the student to discuss the consequences of the positive criminal background investigation on the student's ability to start/resume practical training/rotations and the student's ability to graduate, secure a post-graduate residency and obtain licensure so that appropriate action can be taken.
9. Records concerning a student's positive criminal background check are stored in a confidential file in the Office of Student Services.
10. In the event that a student is assigned to a practical training/rotation site that requires a copy of the original criminal background check report prior to a student's placement at the site, the student's criminal background check report and cover letter will be scanned into an encrypted password protected PDF file. The encrypted PDF file will be forwarded via email to the rotation site coordinator.

Harassment/Unlawful Discrimination

Midwestern University believes in the dignity and worth of its students, faculty, staff, interns, and residents and therefore maintains a policy of nondiscrimination for all students, faculty and staff regardless of race, color, gender, gender identity, sex, sexual orientation, religion, national origin, ethnic origin, disability, status as a veteran, marital status, pregnancy status, or age. Any form of unlawful discrimination or harassment that has the effect of substantially interfering with the individual's performance or creates an intimidating, hostile, or offensive learning/working environment is not tolerated by the University.

This policy/procedure establishes a protocol whereby those who believe they have been discriminated against or harassed may obtain redress promptly and equitably through formal and informal procedures of the University. This policy applies to all members of the University community, each of whom is expected to report promptly complaints about violations. Students found to be in violation of this policy shall be subject to disciplinary action, which may include, but is not limited to, disciplinary warning, disciplinary probation, suspension, or dismissal. No action shall be taken against anyone who submits a complaint that the student believes to be valid - regardless of the outcome of the investigation; however, any person found to be intentionally dishonest in making the allegations or to have made them maliciously is subject to University discipline.

Definitions

Unlawful Discrimination: Unlawful discrimination refers to unfair or unequal treatment of an individual or group based on protected status, such as race, color, gender, gender identity, sex, sexual orientation, religion, national origin, ethnic origin, disability, status as a veteran, marital status, pregnancy status, age or other protected group status as defined by law.

Harassment: Harassment includes all unwelcome conduct (whether verbal, physical, visual or written) based on an individual's protected status, such as race, color, gender, gender identity, sex, sexual orientation, religion, national origin, ethnic origin, disability, status as a veteran, marital status, pregnancy status, age, or other protected group status as defined by law. Among the types of conduct prohibited by this policy are teasing, jokes, slurs, epithets, and negative stereotyping based on another person's protected status. Even where the conduct is not sufficiently severe or pervasive to rise to the level of a legal violation, Midwestern University discourages any such conduct in the workplace and/or any of our related educational settings and reserves the right to take remedial action for all conduct it deems inappropriate.

Complaint Process

Informal Complaint Resolution

Any member of the Midwestern University community may seek advice, or information, on matters related to harassment without having to lodge a formal complaint. Students who feel they are being harassed, or are uncertain as to whether what is experienced is harassment, are encouraged to talk to the Dean of Students. The complaining party (the "complainant"), will be informed as to the options available under this policy, including upgrading the informal complaint to a formal written complaint (see below #2). At the complainant's request, steps will be taken to resolve the complaint informally. The aim of the informal resolution process is to ensure that the alleged offending behavior ceases and that the matter is resolved promptly. The name of the complainant will be held in confidence during the informal resolution process, unless and until the complainant agrees that additional people must be informed in order to facilitate a solution. The Dean of Students will have the discretion to determine when the situation warrants notification of an alleged offender. If deemed advisable, constructive, confidential informal discussion to increase awareness will be undertaken with the person alleged to have violated this harassment policy. An informal complaint may also be elevated to a formal complaint by the Dean of Students because of the severity of the factual allegations made by the complainant or because of the frequency of allegations against the alleged offender (see section below).

Formal Complaint Resolution

Prior to any formal action, a formal complaint must be reduced to writing, identifying both the complainant and the alleged offender.

1. After a complaint has been reduced to writing, an investigation of the alleged harassment will be initiated by the Dean of Students, if possible, within 3 working days. For complaints against faculty, staff, administrators and preceptors, the Dean of Students and the Director of Human Resources will initiate a joint, formal investigation of the allegations, with the right to interview other parties in relation to the complaint in order to conduct a fair and thorough investigation.
2. The investigation will include, at a minimum, an interview with the complainant. The alleged offender will be interviewed if it is determined that the allegations, if true, would constitute a violation of this policy. The alleged offender will then be informed of the nature of the allegations, the identity of the complainant and the facts surrounding the allegations, and will be afforded a full opportunity to respond to the allegations. Any other person who may have information regarding the alleged harassment may also be interviewed.
3. Notes and documentation of all interviews relating to the investigation will be maintained. All matters related to the investigation shall remain confidential to the extent permitted by law, provided it does not interfere with Midwestern University's ability to investigate or take corrective action.
4. The Dean of Students will report the student findings to the College Dean/Department or Division Head/Program Director of the alleged offender for disposition typically within 10 working days of the receipt of the written complaint. For incidents involving faculty, staff, administrators and preceptors, the findings will be reported to the Vice President of Human Resources and Organizational Development, as well as the College Dean/Department or Division Head/Program Director when applicable.
5. The report shall include the allegation, the investigative process, the persuasiveness of the evidence, and the credibility of the witnesses. The report shall arrive at one of the following three findings based upon the preponderance-of-the-evidence standard (i.e., that it is more likely than not that harassment/unlawful discrimination occurred):
 - a. Harassment/unlawful discrimination has occurred;
 - b. Harassment/unlawful discrimination did not occur; or
 - c. There is inconclusive evidence as to whether harassment/unlawful discrimination occurred.
6. Upon review, the College Dean/Department or Division Head/Program Director or Vice President of Human Resources and Organizational Development responsible for receiving the report will recommend or take appropriate disciplinary action, if applicable.
7. Notification of the findings and disposition as recommended by the College Dean/Department or Division Head/Program Director or Vice President of Human Resources and Organizational Development shall be provided, confidentially, in writing, to both the complainant and the alleged offender.
8. The complainant or the alleged offender may appeal the decision of the College Dean/Department or Division Head/Program Director or Vice President of Human Resources and Organizational Development or Dean of Students.
9. All complaints and associated resolutions will be kept on file in the Office of the President in accordance to HLC accreditation requirements and in the Office of the Dean of Students when complaints/resolutions involve students.

Appeal by a Student

1. A student's request for appeal must be submitted in writing to the President within 14 calendar days of the date of notification of findings. The President can designate the appropriate Vice President, Chief Academic Officer to review the case.
2. The appeal shall proceed according to the procedures stated in section 1 of the student handbook.

Protection Against Retaliation

Midwestern University shall not in any way retaliate against any individual who informally or formally complains of harassment. Retaliation is a serious violation of this harassment policy. Any person found to have retaliated against another individual for reporting harassment will be subject to disciplinary action up to and including dismissal.

Sexual Misconduct

The University is committed to ensuring the safety and security of all its members. Sexual misconduct is a serious violation of the standards set by the University community since it creates an atmosphere of distrust and inequality and will not be tolerated. Sexual misconduct includes sexual harassment, sexual abuse, sexual assault or rape, domestic violence, dating violence, and stalking. This policy/procedure establishes a protocol whereby those who believe they have been subjected to sexual misconduct may obtain redress promptly and equitably through the policies and procedures of the University.

This policy applies to all members of the University community, regardless of position/status, gender or sexual orientation. Each member of the University community is expected to report promptly complaints about violations. Any student found to be in violation of this policy shall be subject to disciplinary action, which may include, but is not limited to, disciplinary warning, disciplinary probation, suspension, or dismissal. Any action taken by the University is independent of actions taken by external law enforcement agencies. No action shall be taken against anyone who submits a complaint that the complainant believes to be valid - regardless of the outcome of the investigation; however, any person found to be intentionally dishonest in making the allegations or to have made them maliciously is subject to University discipline.

No Retaliation Statement

No action shall be taken against anyone who submits a complaint that the complainant believes to be valid - regardless of the outcome of the investigation; however, any person found to be intentionally dishonest in making the allegations or to have made them maliciously is subject to University discipline.

Title IX

Title IX of the Educational Amendments of 1972 prohibits sexual discrimination. Sexual harassment and sexual violence are considered forms of sexual discrimination, and are therefore violations of Title IX. Violations of the University Sexual Misconduct Policy must be reported to the Title IX Coordinator (Dr. Ross Kosinski, Dean of Students).

Confidentiality

Employees of the University, including Resident Advisors in Housing, are required to report incidents of sexual misconduct to the Title IX Coordinator regardless of whether the student reporting the violation requests confidentiality. Campus counselors are not required 'to report, without the student's consent, incidents of sexual misconduct to the school in a way that identifies the student' (Office of Civil Rights) and therefore can be approached in confidence. Nonetheless, Midwestern University will make every effort to maintain the confidentiality of the student reporting the violation. However, requests for complete confidentiality may hamper the ability of the University to fully respond to the incident and restrict the University's ability to pursue disciplinary action. Furthermore, the University may determine that its requirement to provide a safe, non-hostile, and nondiscriminatory environment for all students supersedes the confidentiality request of the student reporting the violation. Evaluations of requests for confidentiality will be made by the Title IX Coordinator.

Illinois - Sexual Misconduct Definitions

Consent

Consent is freely given agreement to the act of sexual penetration or sexual conduct in question. Lack of verbal or physical resistance or submission by the victim resulting from the use of force or threat of force by the accused shall not constitute consent. Silence is not consent. The absence of refusal is not consent. The manner of dress of the victim at the time of the offense shall not constitute consent. A person who initially consents to sexual penetration or sexual conduct is not deemed to have consented to any sexual penetration or sexual conduct that occurs after the person withdraws consent during the course of that sexual penetration or sexual conduct. An individual who is impaired due to alcohol or drug ingestion cannot give consent.

Dating Violence

Dating violence means violence by a person who has been in a romantic or intimate relationship with the victim. Whether there was such relationship will be gauged by its length, type, and frequency of interaction.

Domestic Violence

Domestic violence includes asserted violent misdemeanor and felony offenses committed by the victim's current or former spouse, current or former cohabitant, person similarly situated under domestic or family violence law, or anyone else protected under domestic or family violence law.

Force or threat of force

Force or threat of force means the use of force or violence or the threat of force or violence, including, but not limited to, (1) when the accused threatens to use force or violence on the victim or on any other person, and the victim under the circumstances reasonably believes that the accused has the ability to execute that threat; or (2) when the accused overcomes the victim by use of superior strength or size, physical restraint, or physical confinement.

Sexual Abuse

A person commits criminal sexual abuse if that person: (1) commits an act of sexual conduct by the use of force or threat of force; or (2) commits an act of sexual conduct and knows that the victim is unable to understand the nature of the act or is unable to give knowing consent.

Sexual Assault

Sexual assault is:

An act of sexual penetration under the use or threat of force; or

An act of sexual penetration where the accused knows that the victim is unable to understand the nature of the act or is unable to give knowing consent; or

An act of sexual penetration in which the accused delivers (by injection, inhalation, ingestion, transfer of possession, or any other means) any controlled substance to the victim without the victim's consent or by threat or deception for other than medical purpose; or

An act of sexual penetration on a victim under the age of consent by Illinois definition.

Sexual Conduct

Sexual conduct means any knowing touching or fondling by the victim or the accused, either directly or through clothing, of the sex organs, anus, or breast of the victim or the accused or any part of the body of a child under 13 years of age or any transfer or transmission of semen by the accused upon any part of the clothed or unclothed body of the victim, for the purpose of sexual gratification or arousal of the victim or the accused.

Sexual Harassment

Sexual harassment is a form of harassment that may involve the behavior of a person of either sex against a person of the opposite or same sex, and occurs when such behavior constitutes unwelcome sexual advances, unwelcome requests for sexual favors, and other unwelcome verbal or physical behavior of a sexual nature where:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's education or employment;
2. Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting the individual's welfare; or
3. Such conduct has the purpose or effect of substantially interfering with an individual's welfare, academic or work performance, or creates an intimidating, hostile, offensive, or demeaning education or work environment.

Sexual Penetration

Sexual penetration means any contact, however slight, between the sex organ or anus of one person and an object or the sex organ, mouth, or anus of another person, or any intrusion, however slight, of any part of the body of one person or of any animal or object into the sex organ or anus of another person, including, but not limited to, cunnilingus, fellatio, or anal penetration. Evidence of emission of semen is not required to prove sexual penetration.

Stalking

A person commits stalking when the person knowingly engages in a course of conduct directed at a specific person, and the person knows or should know that this course of conduct would cause a reasonable person to: (1) fear for the person's safety or the safety of a third person; or (2) suffer other emotional distress.

Arizona - Sexual Misconduct Definitions

Domestic Violence

Domestic violence means any act which is a dangerous crime against children as defined in section [13-705](#) (dangerous crimes against children) or an offense defined in section [13-1201](#) through [13-1204](#) (endangerment, threatening or intimidating, assault, aggravated assault); [13-1302](#) through [13-1304](#) (custodial interference, unlawful imprisonment, kidnapping); [13-1502](#) through [13-1504](#) (criminal trespass in the third, second and first degree); [13-1602](#) (criminal damage); [13-2810](#) (interfering with judicial proceedings); 13-2904, subsection A, paragraph 1, 2, 3 or 6 (disorderly conduct); [13-2916](#) (use of telephone to terrify, intimidate, threaten, harass, annoy or offend); [13-2921](#) (harassment); [13-2921.01](#) (aggravated harassment); [13-2923](#) (stalking); [13-3019](#) (surreptitious photographing, videotaping, filming or digitally recording or viewing); [13-3601.02](#) (aggravated domestic violence); [13-3623](#) (child or vulnerable adult abuse), if any of the following applies:

1. The relationship between the victim and the defendant is one of marriage or former marriage or of persons residing or having resided in the same household.
2. The victim and the defendant have a child in common.
3. The victim or the defendant is pregnant by the other party.
4. The victim is related to the defendant or the defendant's spouse by blood or court order as a parent, grandparent, child, grandchild, brother or sister or by marriage as a parent-in-law, grandparent-in-law, stepparent, step-grandparent, stepchild, step-grandchild, brother-in-law or sister-in-law.
5. The victim is a child who resides or has resided in the same household as the defendant and is related by blood to a former spouse of the defendant or to a person who resides or who has resided in the same household as the defendant.

Oral Sexual Contact

Oral sexual contact means oral contact with the penis, vulva, or anus.

Sexual Abuse

A person commits sexual abuse by intentionally or knowingly engaging in sexual contact with any person who is 15 or more years of age without consent of that person or with any person who is under 15 years of age if the sexual contact involves only the female breast.

Sexual Assault

A person commits sexual assault by intentionally or knowingly engaging in sexual intercourse or oral sexual contact with any person without consent of such person.

Sexual Conduct

Sexual contact means any direct or indirect touching, fondling or manipulating of any part of the genitals, anus or female breast by any part of the body or by any object or causing a person to engage in such contact.

Sexual Harassment

Sexual harassment is a form of harassment that may involve the behavior of a person of either sex against a person of the opposite or same sex, and occurs when such behavior constitutes unwelcome sexual advances, unwelcome requests for sexual favors, and other unwelcome verbal or physical behavior of a sexual nature where:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's education or employment;
2. Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting the individual's welfare; or
3. Such conduct has the purpose or effect of substantially interfering with an individual's welfare, academic or work performance, or creates an intimidating, hostile, offensive, or demeaning education or work environment.

Sexual Intercourse

Sexual intercourse means penetration into the penis, vulva, or anus by any part of the body or by any object or masturbatory contact with the penis or vulva.

Stalking

A person commits stalking if the person intentionally or knowingly engages in a course of conduct that is directed toward another person and if that conduct either: 1) Would cause a reasonable person to fear for the person's safety or the safety of that person's immediate family member and that person in fact fears for the person's safety or the safety of that person's immediate family member 2) Would cause a reasonable person to fear death of that person or that person's immediate family member and that person in fact fears death of that person or that person's immediate family member.

Without Consent

Without consent includes any of the following: 1) the victim is coerced by the immediate use or threatened use of force against a person or property. 2) The victim is incapable of consent by reason of mental disorder, mental defect, drugs, alcohol, sleep or any other similar impairment of cognition and such condition is known or should have reasonably been known to the defendant. For purposes of this subdivision, "mental defect" means the victim is unable to comprehend the distinctively sexual nature of the conduct or is incapable of understanding or exercising the right to refuse to engage in the conduct with another. 3) The victim is intentionally deceived as to the nature of the act. 4) The victim is intentionally deceived to erroneously believe that the person is the victim's spouse.

Reporting Sexual Misconduct

All complaints will result in a formal investigation with a subsequent resolution. Students reporting violations have the right to file complaints with external law enforcement agencies as well as the University. University and law enforcement investigations will usually be conducted independently and simultaneously. The University standard for determining the validity of a complaint is the 'preponderance of evidence' standard. Investigations of student complaints that involve another student or students will be undertaken by the Title IX coordinator; however, investigations involving student complaints against a Midwestern University employee(s) or employee(s) complaints against a student are undertaken jointly by the Title IX Coordinator and the Vice President of Human

Resources and Organizational Development. Student complaints concerning non-sexual harassment and unlawful discrimination are governed under the Student Handbook's section on Harassment and Unlawful Discrimination, which can be found in the Policies Section of the Student Handbook. Students who are charged with sexual misconduct are in violation of the University's "Code of Responsibilities of the Students of Midwestern University" as stated in Appendix 1 and of the University's "Bylaws and Regulations of the Code of Responsibilities and Rights of the Student of Midwestern University" stated in Appendix 2 of the Student Handbook and can be disciplined under the judicial proceedings stated in Appendix 2, Section 4 of the Student Judicial System. Disciplinary sanctions imposed by the University on students may include, but are not limited to, disciplinary warning, disciplinary probation, suspension, or dismissal. Students charged with violations may also be prosecuted under Illinois or Arizona criminal statutes. Employees will be disciplined according to University Human Resources guidelines.

Procedure

Initiating an investigation of sexual misconduct

To institute proceedings regarding allegations of sexual misconduct, the following procedures shall be followed:

1. Nature of the act and related circumstances are to be reported in written detail and submitted to:
 - a. The involved student(s) or employee(s),
 - b. The appropriate College Dean, and
 - c. The Dean of Students.
2. The written statement must include the name of the involved student or employee, the name and status of the reporting person, and the nature of the alleged act. The confidentiality of the student reporting the violation will be maintained if possible. The written statement may be sent to the involved student via the University email/mail system or delivered in person. Should a student so involved refuse or fail to accept delivery of the statement after a bona fide attempt is made to deliver, the requirement of notification will be considered to have been met. All correspondence related to the proceedings is considered to be confidential material. Correspondence to employees will be handled via the Department of Human Resources.
3. Temporary suspension: Should a student action be of such a nature that it is felt that the student must be relieved of the student right to attend Midwestern University, the student may be temporarily suspended from the college on recommendation of the Dean of Students. Any temporary suspension may continue until such time as the issue in dispute is resolved under the process outlined below. Suspension of employees will be handled by the Department of Human Resources.

Resolution of conduct matter

Any issue concerning student conduct will be resolved by utilizing the Office of the Title IX Coordinator. The Title IX Coordinator is authorized to receive complaints regarding sexual misconduct, conduct investigations and determine the validity of the charges. The Title IX Coordinator also makes recommendations regarding appropriate disciplinary action to the applicable College Dean. The Dean of Students has been assigned this role to ensure consistent and fair resolution of student conduct issues. In sexual misconduct cases involving a student(s) and an employee(s) of the University, the investigation will be jointly conducted by the Title IX Coordinator and the Vice President of Human Resources and Organizational Development. Complaints against vendors will be conducted by the Title IX Coordinator in the same fashion as a student complaint.

Method of resolution

1. Upon receipt of the written complaint lodged against the student, the Title IX Coordinator will set a time to meet with the student charged with the violation regarding the issue. The interview will preferably be conducted in person, although a phone interview is acceptable if the student is at a distant location. The Title IX Coordinator has the right to interview other parties in relation to the incident to determine the validity of

the complaint. The student filing the complaint will also be interviewed. Both the student filing the complaint and the accused student have the right to have an advisor present during all meetings/interviews/proceedings.

2. After interviewing the student accused of the violation, the student filing the complaint and other involved persons, the Title IX Coordinator will render a decision regarding the validity of the complaint. The validity will be based upon whether it was more likely than not that the incident occurred (preponderance of the evidence standard). If the complaint is deemed valid, the Title IX Coordinator will recommend disciplinary action for the accused student (s) to the appropriate College Dean. The College Dean will be notified of the recommendation within 5 school days of the aforementioned interview unless prevented by extenuating circumstances. A copy of the Title IX Coordinator's investigation into the complaint, including all supporting evidence, will be submitted to the Office of the President in Glendale and the Office of Accreditation in Downers Grove.
3. In a joint investigation with Human Resources, a copy of the investigation and all supporting evidence will be submitted to the Vice President of Human Resources and Organizational Development. If the complaint is determined to be valid and the perpetrator is an employee, the Human Resources Department will impose the appropriate sanction per HR policy. If the complaint is determined to be valid, and the perpetrator is a student, the process outlined above in subsection (b) in which the appropriate College Dean determines sanctions will be followed. A copy of the joint investigation into the complaint, including all supporting evidence, will also be submitted to the Office of the President in Glendale and the Office of Accreditation in Downers Grove.
4. Typically, within 5 school days after receiving the recommendation of the Title IX Coordinator, the Academic Dean will notify the accused student(s) in writing of the Dean's decision including, if applicable, any disciplinary action. Any disciplinary action must conform to Appendix 1, Section Five of the Code of Responsibilities and Rights of Students of Midwestern University. A copy of the College Dean's decision must be sent to the Title IX Coordinator and the Office of the President in Glendale and the Office of Accreditation in Downers Grove for inclusion in the student's disciplinary file. The student or employee reporting the violation will also be notified, in writing, of the outcome of the investigation.
5. In a joint investigation with the Department of Human Resources, the Vice President of Human Resources and Organizational Development will notify the accused employee in writing of disciplinary action. The student reporting the violation will also be notified, in writing, of the outcome of the investigation.
6. If the student/employee does not accept the College Dean/Vice President of Human Resources and Organizational Development decision, the student/employee may appeal to the University President within 5 school days of notification of College Dean/Vice President's decision, by submitting a written statement containing the basis and reasons for the appeal including all relevant facts. The University President will request a copy of the Title IX Coordinator's findings and decision, as well as all relevant information from the investigation. Meetings with the University President will be audio recorded with the permission of the student. The student may request a copy of the recording. The President will act upon the appeal by (a) confirming the original decision, (b) altering any penalties imposed, or (c) requesting the student/employee, the Coordinator, and/or the applicable College Dean/Vice President of Human Resources and Organizational Development to submit additional information prior to rendering a decision. Both the student/employee reporting the incident and the accused student/employee have the right of appeal utilizing the guidelines listed above. Both the student/employee reporting the violation and the accused student/employee must be notified of the outcome of the appeal in writing.
7. The final decision rests with the University President. A copy of the University President's decision must be sent to the College Dean, Title IX Coordinator and the Office of the President in Glendale, and the Office of Accreditation in Downers Grove for inclusion in the student's disciplinary file.

Record keeping in conduct matters Records of the above proceedings shall be kept in accordance with the following guidelines:

1. All records related to disciplinary investigations/actions are secured in the Office of the Title IX Coordinator.
2. All records related to disciplinary appeals are secured in the Office of the President.
3. All records related to disciplinary investigations/actions/appeals are maintained in perpetuity.
4. A student may see any and all records related to the student's disciplinary investigation/action/appeal in accordance with the college regulations concerning inspection of records as spelled out in Guidelines for Access to and Disclosure of Educational Records Maintained by Northwestern University. The identity of the student reporting the violation will be redacted, if the reporting student has requested confidentiality.
5. All documentation related to disciplinary investigations/actions/appeals are kept on file in the Office of the President in Glendale and Office of Accreditation in Downers Grove in accordance with the Higher Learning Commission requirements.
6. The University will disclose to the alleged victim of a crime of violence, or a non-forcible sex offense, the results of any disciplinary hearing conducted by the University against the student who is the alleged perpetrator of the crime or offense upon written request. If the alleged victim is deceased as a result of the crime or offense, the University will provide the results of the disciplinary hearing to the victim's next of kin, if so requested.

Procedures for Reporting a Sexual Assault on Campus

Any student who is involved in or witnesses a sexual assault should contact Campus Security immediately (Downers Grove, dial 630/515-7111; Glendale dial 623/572-3201). Students have the option to notify law enforcement authorities, including local police, and the option to be assisted by campus authorities in notifying such authorities. It is extremely important to preserve any evidence related to the crime as may be necessary to provide proof of the assault. The student should not bathe or shower, use the restroom, change clothes, comb hair, clean up the crime scene or move or touch anything the offender may have touched. If Campus Security is contacted in an emergency, they will notify the police and the Title IX Coordinator. The Manager of Residence Life will also be notified if emergencies occur within campus housing. The following is a list of emergency campus telephone numbers. Downers Grove Campus

Downers Grove Campus

Resource	Number
Security	7111
Police	911
Resident Advisor on Duty	(630/515-7111) Reached through Security
Dean of Students	630/515-6470

Glendale Campus

Resource	Number
Security	623/572-3201
Police	911
Resident Advisor on Duty	408-258-3247
Dean of Students	623/572-3210

Counseling Services for Sexual Assault Victims and Witnesses

The University has counseling services for students who are victims of or have witnessed an act of sexual misconduct (including sexual assault, attempted sexual assault, sexual abuse, dating violence, domestic violence, or stalking). Student victims of an alleged act of sexual misconduct have options for requesting a change in

academic situations and on-campus residence arrangements if such requests are reasonably available. In addition to seeking assistance from the Title IX Coordinator, students may also seek assistance from the following University personnel or outside resources:

In Illinois: University Personnel

Resource	Number
Title IX Coordinator	630/515-6470
Manager of Residence Life	630/971-6400
Title IX Assistant Coordinator	630/515-7142
Wellness and Recreation Center Personnel	630/960-3144
Student Counselor	630/5115-7142

Community Resources

Resource	Number
YWCA of DuPage - 24-Hour Crisis Hotline	630/790-6600 ext. 2479
Family Shelter Service Hotline	630/469-5650
Northwest Action Against Sexual Assault 24-Hour Hotline	800/656-4673
Mutual Ground Hotlines	
24-Hour Sexual Assault Hotline	630/897-8383
24-Hour Domestic Violence Hotline	630/897-0080
Y.W.C.A.R.E.S. (South Suburban YWCA)	708/754-0486

In Arizona: University Personnel

Resource	Number
Title IX Coordinator	623/572-3329
Manager of Residence Life	623/572-3348
Title IX Associate Coordinator	623/572-3357
Title IX Assistant Coordinator	623/572-3213
Office of Student Services	623/572-3210
Student Counselor	623/572-3629

Community Resources

Resource	Number
Glendale Police Victim Assistance Hotline	623/930-3030
Domestic Violence Hotline	623/930-3720
Maricopa Crisis Hotline	1-800-631-1314

Sexual Misconduct Education and Awareness

Midwestern University provides educational programming that consists of primary prevention and awareness programs for all incoming students and new employees and ongoing awareness and prevention campaigns for students, faculty, and staff that:

1. Identify sexual misconduct which includes sexual harassment, sexual abuse, sexual assault or rape, domestic violence, dating violence, and stalking as prohibited conduct;
2. Define what behavior constitutes sexual harassment, sexual abuse, sexual assault or rape, domestic violence, dating violence and stalking;
3. Defines 'consent to sexual activity' under University policy and state regulations
4. Covers information on reporting sexual violence, assisting victims and survivors of sexual violence, and preventing sexual violence through bystander training.
5. Explains rights of accuser and accused, including the right to file reports with external law enforcement agencies and the right to an advisor.

Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled. In the event that these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the college/program Academic Policy section for additional policies that apply to students enrolled in a specific college/program.

Attendance

The policy for class attendance is determined by each course director/coordinator. Students should refer to their course syllabus for additional attendance requirements. Students are expected to satisfy these attendance requirements in order to receive course credit.

Midwestern University encourages 100% attendance by students at all course-related sessions, lectures, laboratories, and clinical assignments. Each course director/coordinator has the prerogative to establish individual attendance requirements and policies. Unless a department's/division's policy differs, class attendance is mandatory for all students for the first session of each course in each quarter as well as on the first day of class after scheduled vacations. There is also a mandatory attendance policy for all students during clerkship/preceptorship and experiential rotations. If illness, a personal emergency, personal incapacitation, or other exceptional problem of a serious nature causes a student to be absent from a rotation or a session requiring mandatory attendance, the student must immediately notify the department/division or program responsible for the course and follow stated course policies and procedures. Unexcused absences during mandatory attendance sessions may result in course failure. Refer to specific course policies and procedures for course attendance requirements set forth by each department/division, program, or college.

Class Rank

Class rank is calculated annually on July 1 for continuing students and one month before the official program/college graduation date for graduating students. Class rank may be accessed through the [student's personal page](#).

Classroom Visitation

Each faculty member has the responsibility and authority to determine who, in addition to the enrolled students, may visit the faculty member's classes. Anyone wishing to visit a class must request permission from the course director, the Department Chair/Program Director/Division Director or Head, and the faculty member who is presenting the lecture.

Classroom/Exam Etiquette

In order to maintain an appropriate classroom environment that is most conducive to teaching and learning, students are expected to behave in a manner that is not disruptive or disrespectful to any person and that does not adversely affect teaching or learning of any person. If cell phones need to be turned on during classroom time, then they must be set to the vibrate mode. All calls must be made/received outside of the classroom as this type of activity is disruptive to the teaching/learning environment and is disrespectful to others in the classroom. Students who do not abide by this policy may be asked to leave the classroom. Abuse of this policy could result in disciplinary procedures.

Children are not typically allowed in the classroom. Students who have an unforeseen temporary need to bring a child into the classroom must receive prior approval from the lecturer.

Students must abide by the policies and procedures of the University Testing Center when taking examinations or other assessments therein. Students must abide by the procedures of the college or department/division/program when taking examinations or other assessments on campus outside of the University Testing Center.

Closed Meeting Policy

All students enrolled in Midwestern University's academic programs are considered graduate students. As such, the University holds the student accountable for the student's actions and decisions. During the student's enrollment any and all required meetings with faculty committees, faculty, or University/college administrators, are closed to only the involved student. All invited or voluntary formal or informal meetings, telephone discussions, or conference calls with faculty committees, faculty or University/college administrators are closed to only the involved student.

Course Auditing

An enrolled student can audit a course under the following conditions. The student must first receive the written approval of the course director and the Department Chair/Program Director/Division Director or Head. Once these approvals have been acquired and received by the Registrar, the student is registered for the course as an auditor and the student's name appears on the course roster. Students auditing courses are expected to attend class. An auditing student may be administratively withdrawn from a course when, in the judgment of the instructor and Department Chair/Program Director/Division Director or Head, the attendance record justifies such action. Academic credit is not issued to audited courses, and the possibility does not exist to change the course status from audit to full credit.

Enrolled Midwestern University students are charged 25% of the tuition costs to audit a course.

Course Credit Policy

Midwestern University has defined course credits across all colleges and programs.

A quarter is typically 9-12 weeks long.

The following contact times are assigned for every one credit hour in a course based on the specific type of learning activity independent of course length:

- Lecture: 10 hours of lecture (where each lecture hour is 50 minutes in duration) and 20 hours of student study time outside for the classroom
- Laboratory: 20-40 hours of contact time
- Case discussion, interactive group problem-solving, recitation or workshop: 20 hours of contact time

- Online or distance education: 30 hours of student work. Student work includes reading, research, online discussion, instruction, assigned group discussion, and preparation of papers or presentations.

Experiential education or rotation credits are determined by different formulae depending on the college or program.

- For AZCOM, CCOM, CPDG, CPG, CDMA, CDMI, CVM, AZCOPT, CCO: Each week of full time experiential education (equivalent to 40 hours of instruction) is equivalent to 1.5 credits.
- For AZCPM, CHS and CGS: Each week of full-time experiential education (equivalent to 40 hours of instruction) is equivalent to 1 credit.

If approved, some Colleges or Programs may allow the inclusion of full-time student participation on Midwestern University - sanctioned mission trips as experiential education or rotation time. In this case, the course credit policy for experiential education or rotations applies. The minimum amount of credit per mission trip that can be applied to a stand-alone course is 0.5 credit hours.

The Curriculum Committee of the College approves the number of credits hours for all courses including those utilizing alternative delivery methods. The determination/assignment of credit hours should reflect the overall educational content of the course and the academically engaged time required to achieve the desired outcome for the typical student. Academically engaged time may be measured by the type, quantity, and required level of mastery of the course content.

Course Prerequisites

Prerequisites for courses may be established by the college/department/program that administers the course. Prerequisites are recommended to the Curriculum Committee for approval and are listed with the course description in the University Catalog.

On a case-by-case basis, prerequisites may be waived upon recommendation of the college/program Promotions, Academic Progress/Review, or Student Promotion and Graduation Committee; and with the approval of the Department Chair that delivers the course, and Program Director, Associate Dean or Dean of the college. In case of a conflict, the ultimate decision will be made by the Dean of the college.

Final Course Grades Due

All course directors or course coordinators must submit to the Registrar the final grades for students by the end of the day on the Tuesday following final exam week each quarter.

Grade Appeals Policy

Appeal of Non-Failing Course Grades

A student who wishes to appeal a non-failing course grade must make the appeal to the course director within one week following posting of the grade. The course director must act upon the student's appeal within one week following receipt of that appeal. A narrative explaining the basis of the appeal must accompany the request. An appeal must be based on one of the following premises:

1. Factual errors in course assessment tools
2. Mathematical error in calculating the final grade
3. Bias

If the appeal is denied, the student has the right to appeal the decision to the course director's immediate supervisor within one week of receipt of the course director's denial. The course director's supervisor should notify the student of the director's decision within one week following receipt of the student's reappeal. The decision of the course director's supervisor is final.

Appeal of Course Grades Subject to Academic Review

A student whose academic progress will be subject to review by the student's Promotion/Academic Review Committee and who wishes to appeal a grade must do so in an expedited manner prior to the scheduled meeting of the Committee. In this case, an appeal of a didactic course grade must be submitted within one business day following posting of the grade and must be based on one of the premises stated above. The course director must act on this appeal within one business day. If the appeal is denied, the student has the right to appeal the decision to the course director's immediate supervisor. The course director's supervisor should notify the student of the faculty member's decision within one business day following receipt of the student's reappeal. The decision of the course director's supervisor is final. An appeal of a failing clinical clerkship or rotation grade must be submitted within two business days after a grade for rotation is posted. The course director must act on this appeal within two business days of receipt of the grade appeal. If the appeal is denied, the student has the right to appeal this decision to the course director's immediate supervisor. The course director's supervisor should notify the student within two business days following receipt of the student's reappeal. The decision of the course director's supervisor is final. Any extension of the time for student appeal or course director's decision must be approved by the College Dean. The student is responsible for notifying the chair of the Promotion/Academic Review Committee that a grade appeal has been filed prior to the meeting of the Committee.

All appeals and decisions must be communicated in written form.

Graduation Walk-Through Policy

A walk-through candidate is defined as a student who has not satisfied academic requirements for a particular degree, but will complete all academic requirements for the degree within one quarter immediately following the official scheduled end of the academic program for the candidate's class.

All degree candidates for graduation and graduation walk-through candidates must be approved sequentially by the College/Program faculty, College Dean, Faculty Senate, President, and Board of Trustees.

A walk-through candidate must submit an official request to participate in a graduation ceremony and the request must be approved by the Dean four weeks prior to the ceremony.

The Dean may grant late submission of a Walk-Through Request due to unforeseen circumstances.

A graduation walk-through candidate will not receive a diploma until the candidate has successfully completed all academic requirements for graduation.

Incomplete Grades

The grade (I) incomplete may be assigned by a course director when a student's work is of passing quality but is incomplete or if a student qualifies for reexamination. It is the responsibility of the student to formally request an extension from the course instructor. By assigning an I (incomplete) grade, it is implied an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. To resolve an incomplete grade, an instructor will resubmit the new grade on-line. All incomplete grades must be resolved within 10 calendar days from the end of final examinations for the quarter. In the case of courses ending prior to final examination week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with notice to the Registrar. If an incomplete grade remains beyond the 10 calendar days, it is automatically converted to a grade of (F) failing by the Registrar, which signifies failure of the course.

In-Progress Grade

An in-progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 days (e.g., illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter with notification of the Registrar.

Last Day to Add/Drop Courses

The last day that a student may add or drop a course is Friday of the first week of the course. To add or drop any course after the course begins, a student must complete a course [add/drop request](#) which is located on the student portal.

Students are able to submit "add" requests for most electives, but assistance from an academic advisor, Program Director or College Dean is required to add core courses and restricted electives. Any course "add" request submitted on behalf of a student, must first be approved by the student before it is forwarded for final approval and Registrar processing. The status of approvals and final processing can be tracked online.

Courses dropped after the first Friday of the week in which the course starts may be recorded as "W" (Withdrawal), or "WF" (Withdrawal/Failing). Grades will be noted on the transcript in accordance with the college guidelines stated in the catalog.

Leave of Absence

There are two types of leaves of absence: mandatory and voluntary. A student may be put on a mandatory leave of absence for academic, medical, or administrative reasons. Alternatively, a student may voluntarily request to take a leave of absence for bereavement, jury duty, maternity leave, medical reasons, military duty, or other personal reasons.

Midwestern University students requesting a leave of absence must comply with the following:

1. Make an appointment with the Program Director/College Dean to discuss the leave of absence.
2. A student must provide written notification and documentation, if applicable, to the Program Director/College Dean stating the reason for the leave of absence from Midwestern University. If approved, the College Dean will conditionally approve a leave of absence until all clearances are obtained.
3. The student must receive clearance of the student's leave of absence from the Midwestern University departments on the online.midwestern.edu leave system within seven calendar days from the date of the College Dean's approval. This time frame will allow offices such as Student Financial Services and the Registrar to process the leave of absence, prepare the required financial aid exit, and calculate the return of unearned Federal Title IV aid and all other aid, as appropriate.
4. Upon submission of all completed documentation and adherence to all clearance procedures, the College Dean will provide an official letter granting a leave of absence to the student.

The student is withdrawn from all courses if the leave of absence is granted in the midst of an academic quarter. Once the College Dean conditionally approves the leave, the Department Chairs/Program Director/course directors receive an automated electronic notification of the student's withdrawal. A grade of "W" (Withdrawal) or "WF" (Withdrawal/Failing) appears on the official transcript. The course director is responsible for submitting the correct grade. Students on the approved leave are obligated to pay their premium for long-term disability insurance.

All leaves of absence are granted for specific periods of time. Typically, a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. At a minimum of 30 days prior to the end of the leave period, the student is required to submit written notification to the College Dean and Registrar of an intention to return. If the leave of absence was granted for medical reasons, a letter must

be provided to the College Dean from the treating physician verifying that the student is both physically and mentally capable of resuming the academic program prior to registering for classes. To request an extension of a leave of absence, a student must resubmit another written notification as described above. If an individual fails to return to Midwestern University at the agreed-upon date, the student is considered to have withdrawn from the University and must reapply for admission. Leaves of absence can only be initiated through the Office of the Dean.

Students on leaves of absence are ineligible to run for or hold student organizational/club/class offices and are not permitted to work for the University.

Bereavement Leave

Students may request a short-term leave of absence due to death of a member of the student's immediate family. The student should follow the Leave of Absence policy. Students who find it difficult to come to campus during this time to arrange a leave in person should contact the College Dean immediately to make leave arrangements. The duration of the leave shall usually be up to 5 consecutive working days. The immediate family includes any of the following persons: mother, father, spouse/domestic partner, son/daughter (including stepchildren and foster children), brothers, sisters, grandparents, grandchildren, spouse's parents/grandparents, or such persons who have reared the student.

Jury Duty

Students who have been requested to appear for jury duty and cannot do so while attending classes and/or clinical rotations may bring the original jury duty request to the Office of Dean or the Office of Student Services. The College Dean or Dean of Students will give the student a letter requesting that the student be excused from jury duty. Students should be aware that individual counties/states may not excuse them from jury duty even if a letter is submitted.

Maternity Leave

Enrolled students who become pregnant can request a leave of absence for maternity reasons. The request must be in writing and sent to the College Dean; however, prior to officially requesting a maternity leave, pregnant students must contact the Office of the Dean to discuss how a leave will affect their progress in the academic program and to review options available to them. The amount of leave time granted depends largely on the personal needs of the student and the timing of the birth within the academic program. In addition, students must inform the Office of the Dean of their intentions to return to classes at least one month prior to the end of the leave of absence period. A final decision is reached after careful consideration is given to personal and professional circumstances.

Medical Leave

Enrolled students who become seriously ill can request a leave of absence for medical reasons. The request must be in writing and sent to the College Dean; however, prior to officially requesting a medical leave the student must contact the Office of the Dean to discuss how a leave will affect their progress in the academic program and to review options available to them. The amount of leave time depends on the severity of the illness. All medical leaves require documentation from a physician/specialist, including a diagnosis and a statement as to why the student cannot continue with the student's coursework. Additional documentation from the physician/specialist that the student is medically capable of returning to classes must be submitted to the College Dean at least one month prior to the end of the leave of absence period. Approval for the medical leave of absence, as well as the ability to return to classes, is reached by the College Dean after careful consideration is given to the supportive medical documentation and to personal and professional circumstances.

Military Leave

Midwestern University is committed to supporting students called to active military duty. Students called to such duty will be considered on military leave. Students called to active duty should immediately notify the College Dean and provide their pertinent call-up papers. Students returning to Midwestern University from active duty will be eligible for reinstatement as full-time Midwestern University students once the individuals have notified the College Dean and have supplied any pertinent military papers requested by the College Dean.

Students called to active military duty will be entitled to receive refunds of tuition and fees if the withdrawal is prior to the sixth week of the quarter. After the tenth week, students will receive both grades and credit hours for courses in which they earned a passing grade.

Preclinical students with less than two-thirds of assignments/exams completed will be encouraged to restart the courses once they return. Departments, however, will have the prerogative to make special arrangements. Clinical students returning to Midwestern University will be reinstated as closely as possible to the previous point of progress in the clinical experience. The point of entry and order of clinical rotations for the clinical student will be determined by the College Dean and by the Program Director or Department Head/Chair. No additional tuition will be due from students for the resumption of any "incompletes" for work that they started before leaving for active military duty. Tuition charges for students restarting classes or for subsequent academic quarters will be set at the tuition rates in effect at the time the student returns from military duty. The College Dean will provide leadership to facilitate the re-entry of students into their programs as close as possible to the point when they were called to active military duty. The Dean of Students will provide leadership to facilitate student programming to address issues of stress and personal crisis and assist students in need of counseling because of a call-up.

Reexamination (Retest)

Reexamination occurs when the student fails a course, but qualifies for a reexamination. It is the prerogative of the course director to offer or not offer a reexamination for a course failure and to determine the eligibility criteria for a reexamination. If a course director has a reexamination policy, it must be stated in the course syllabus.

If a student qualifies for a reexamination, a grade of "I" must be submitted to the Registrar at the end of the quarter. The reexamination must be completed within 10 calendar days starting from the last day of final examinations for the quarter. If the student passes the reexamination, the grade of "I" will be converted to the minimum passing grade of the college/program. If the student fails the reexamination, the grade of "I" will be converted to a grade of "F".

Registrar

The [Registrar](#) maintains, prepares, and verifies all academic records, grades, and transcripts. The main number of the Office of the Registrar is 630/515-7600 (Downers Grove Campus) and 623/572-3325 (Glendale Campus).

Registration

Registration is done automatically for all students by the University Registrar. Exceptions to this rule include students registering for special schedules (extended course of study) and electives. Students registering for special schedules should contact the Office of the College Dean, Office of the CHS Program Director or Office of the CGS Program Director, if applicable, for assistance.

Religious Accommodations

Midwestern University colleges, programs, and course directors/coordinators will make a good faith effort to provide reasonable accommodations to students with sincerely held religious beliefs upon request, unless the

accommodation would create an undue hardship for the college/program. A student's request for reasonable religious accommodations, including requests for time off from or rescheduling of school activities, is justified when all of the following criteria are met:

- A request **MUST** be submitted in advance. The student must submit a written request for a religious accommodation to a college/program administrator (specifically, the Assistant or Associate Dean of the college, or the Program Director of the College of Health Sciences or College of Graduate Studies) prior to the start of the academic year for the student's academic program **AND** not less than 30 calendar days in advance of the requested absence day(s).
 - For newly admitted students only, the written request for a religious accommodation must be submitted not less than 30 days in advance of the requested absence day(s).
- The request must be submitted on a Religious Absence Request Form, which is available from the Office of the Dean/Office of the Program Director. Text message or e-mail requests are unacceptable.
- The request should include all of the requested dates for time off from courses or rotations for religious accommodation for the academic year.

The College/Program will protect the requesting student's privacy in evaluating and implementing the accommodation requested to the extent possible. However, following the receipt of the request, the College/Program will discuss the accommodation request as necessary with the student, and with the appropriate course directors/coordinators. Following consultation with the course directors/coordinators, a decision on the request will be provided in writing by the College/Program to the requesting student typically within two weeks of receipt of the request.

Definitions

Religious accommodation

A religious accommodation is a change in work or school schedule or environment, or in the way tasks or assignments are customarily done, to enable a student to participate in the individual's religious practice or belief without causing undue hardship to the college/program faculty who are administering the course.

Religious practice or belief

A sincerely held practice or observance that includes moral or ethical beliefs as to what is right or wrong, most commonly in the context of the cause, nature, and purpose of the universe. Religion includes not only traditional, organized religions, but also religious beliefs that are new, uncommon, not part of a formal religious institution, or section, or only subscribed to by a small number of people. Social, political, or economic philosophies, as well as mere personal preferences, are not considered to be religious beliefs.

Undue hardship

An undue hardship on the college/program occurs when significant difficulty and expense arises based on the resources and circumstances of the college/program in relation to the cost or difficulty of providing an accommodation. Undue hardship may include financial difficulty in providing an accommodation or accommodations that are unduly expensive, substantial, disruptive, or that fundamentally alter academic requirements, or the nature or operation of the how the college/program administers the course.

Retake

A retake may be offered when formal repetition of an entire course or a portion of the course is required due to (1) course failure, or (2) in the College of Health Sciences or College of Graduate Studies when a "C" letter grade has been earned and the student is on academic probation or placed in an extended program, or (3) in the Arizona College of Optometry or Chicago College of Optometry when a student is placed on an extended program and

required to repeat courses that would serve to enhance the mastery of optometry knowledge, skills techniques, and concepts that are deemed critical for success in the Doctor of Optometry curriculum. A course may be retaken when any of the following occur:

1. No reexamination is offered by the department.
2. The student has failed the reexamination.
3. The student fails to meet eligibility criteria for reexamination, if offered by the course director.

It is the decision of the Student Promotion and Graduation/Preclinical Promotions/Clinical Promotions/Academic Review Committee of each college/program to recommend a retake of a course. The committee, in conjunction with the approval of the Department Chair, Program Director and/or course coordinator, will determine the nature of the retake and the timeframe for completion of the repeated course. The course may be repeated at Midwestern University or at an outside institution, if offered. The options for repeating a course at Midwestern University may include a directed readings remedial course with examination, repeating the course in its entirety the next academic year, or taking a specially designed course that contains the appropriate student work hours needed to meet the credit hours of the failed course. The repeat course must be completed in a regularly scheduled quarter. In either case, the student must be registered for the course and will be charged a flat rate of \$1,500 per quarter for retake courses, individually or in aggregate, that total one to five credit hours and \$3,000 per quarter for retake courses, individually or in aggregate, that total six credits or more. The College Dean or Program Director will issue a Course Retake Plan Letter to the student specifying the courses included in the Course Retake Plan. Only the courses in the Course Retake Plan Letter qualify for the retake tuition rate. Retake courses may be taken with additional non-retake courses during the same quarter. Applicable tuition rates will be applied to non-retake courses. A student will not be charged more than the full-time per quarter tuition rate during any quarter, except in the instance of course overload situations, including while completing a retake course or courses. The maximum allowable grade that can be earned as a course retake is determined by college policy.

A course at an outside institution that is eligible as a replacement for the course that the student failed at Midwestern University, must be approved by the department or program that offers the course at Midwestern University as a satisfactory replacement for the failed course. A student must earn a minimum grade of "C" (not C-) in a replacement course completed at an outside institution and submit an official transcript to the Dean/Program Director in order to apply the credit toward the degree requirements of the college or program. Students are responsible for all costs associated with repeating a failed course at another institution.

When a student retakes a course, the maximum grade that can be earned is determined by the College and this policy is included in the College's subsection of the Catalog.

When a student repeats a course, the course is entered twice in the permanent record (transcript) of the student. Consistent with the College's policy on the maximum grade that can be earned for a course retake, the grade earned each time is recorded, but only the most recent grade is used in the computation of the student's cumulative grade point average.

Retention of Tests or Written Assignments

Instructors will retain examinations or written assignments not returned to students for a period of one quarter after course completion. After that time, materials are destroyed.

Transcripts and Duplicate Diplomas

The University releases transcripts and duplicate diplomas upon receipt of a request from a student or graduate. All requests should be submitted through the [Document Request Center](#).

1. No phone requests are honored.
2. Allow one week for processing.
3. There is no charge for a transcript release for Midwestern University students prior to graduation; however, graduates and transferring students are required to pay a nominal amount per official transcript release.
4. Individuals who are no longer students at Midwestern University are charged the same rate as an alum.
5. Transcripts and diplomas will not be issued for any student with a past-due account balance with Midwestern University or the Midwestern University Clinics.
6. Transcripts and diplomas will not be issued for any student or alum who has not completed a financial aid exit interview, if aid was borrowed while attending Midwestern University.

A graduate can request a duplicate wall diploma through the online student/alumni portal. For current pricing on transcripts and diplomas, please refer to the [Registrar](#).

Travel and Lodging for Clinical Education/Fieldwork It is the student's responsibility to assure that the student has made appropriate arrangements for lodging and transportation to/from clinical education/rotation/fieldwork sites throughout the curriculum. The University does not generally provide for the cost of transportation and lodging. Travel arrangements are the sole responsibility of the students. Students are not considered an agent or an employee of the University and are not insured for any accidents or mishaps that may occur during any traveling that is done as part of the student's professional program. Students are usually responsible for all expenses associated with clinical education, such as transportation, meals, housing, professional attire, laboratory fees, etc.

Withdrawal

Withdrawal from One or More Courses

Any student who wishes to withdraw from one or more courses must first discuss the consequences of this decision with the student's course director(s) and/or advisor, and then submit a course [add/drop request](#). No course may be dropped after the last day of instruction for the course or during the final examination period. Withdrawal requests must be approved by the Program Director, if applicable, and the College Dean. Approval for withdrawal from a required course is granted only for extraordinary circumstances. Students should be aware that withdrawal from a required course may result in a significant extension of the student's professional program and may alter financial aid assistance. Approved course withdrawals are graded according to the following policy:

Time at Which Course Withdrawal is Approved By the Dean	Course Grade at the Time of Withdrawal	Action
Prior to and including the first Friday of the course	N/A	No grade- course does not appear on the transcript
After the first Friday and up to 50% of the course duration is completed	N/A	W
Greater than 50% of the course duration is completed or up to and including the last day of instruction	Passing	W
	Failing	WF

In the case of courses that span two or three full quarters with a single grade assigned at the end of the course, students may withdraw from the course during any of the quarters in which the course is administered provided that all of the above conditions of this policy are met. If the assigned grade at the time of withdrawal is a "WF", the grade of "WF" will be considered a grade equivalent for all completed quarters of the course as well as the quarters during which the withdrawal was initiated.

When a student earns a W or WF grade in an elective course, the student is not required to repeat that specific elective course.

The course director is responsible for submitting the correct grade or grade notation when a student has received approval by the course director, Program Director, if applicable, and the College Dean.

Withdrawal from the College/University

The decision to withdraw from the University is a serious matter. Any student who withdraws from a college or a program is dropped from the rolls of the University. As such, if the individual decides at some later date to reenter the program, the student must reapply for admission and, if accepted, assume the status of a new student.

Students contemplating withdrawal must inform the Program Director, if applicable, and the College Dean of the decision to voluntarily withdraw and voluntarily relinquish the student's position in the program. The student must contact the Office of the Dean and must complete the appropriate clearance procedures. The withdrawal process includes the clearing of all financial obligations of MWU (including the mailroom, clinical education, library, security, housing, etc.) and a financial aid exit interview. If the withdrawal occurs before the completion of a course, the student must complete a course add/drop request which is located on the [student portal](#). The student will receive one of the following grades: "W" (Withdrawal) or "WF" (Withdrawal/Failing). If the student completes the course before withdrawing, a final grade will be assigned. Following completion of these withdrawal procedures, the designation "Withdrawal" will be placed in the student's permanent record. The designation "Unofficial Withdrawal" is placed in the permanent record of any student who withdraws from the program without complying with the above procedures. For more information, see the Financial Aid sections on Notification of Withdrawal and Tuition Refund Policies.

Admissions

Prospective students interested in enrolling in any college of Northwestern University should contact the Office of Admissions at either the Downers Grove or the Glendale campuses to request admissions information and application materials. For specific admission standards of the respective colleges, refer to the appropriate college sections of the catalog.

Office of Admissions	Office of Admissions
Midwestern University 555 31st Street Downers Grove, IL 60515 630/515-7200 800/458-6253 AdmissL@midwestern.edu	Midwestern University 19555 North 59th Avenue Glendale, AZ 85308 623/572-3215 888/247-9277 AdmissAZ@midwestern.edu

Admission Deferment

Deferments are only considered under extreme circumstances in which a physical illness or medical condition of the applicant or their immediate family member, or military service precludes the student from beginning classes at the start of the academic year.

For the 2022/2023 academic year only, deferments may also be considered for an international student who is unable to obtain an F-1 visa due to the declaration of a global pandemic. If granted by the Dean, a student may defer their admission for one year only.

To initiate the deferred admissions process, a student must:

- Submit their deposit monies by the deposit deadline date designated in the matriculation agreement.

- Submit a request for deferment in writing to the Program Director and/or College Dean a minimum of 60 days prior to the start of classes. For deferments requests related to physical illness, the request must be accompanied by a letter(s) from a physician(s) documenting the conditions that prevent the student from beginning their full time studies.

Once all appropriate documentation has been received, requests to defer an offer of admission will be reviewed by the Program Director and/or College Dean on a case-by-case basis. The College Dean will respond to a written request with a letter to the student detailing the specific conditions associated with the deferment including the start and end dates of the approved deferment period. The Dean is also responsible for notifying the Director of Admissions of the decision as soon as possible regarding the deferment request.

To end an approved admission deferment, the student must:

- Provide a written letter to the College Dean in which the student states an intent to end the deferment and to begin classes. This letter must be received by the College Dean a minimum of 90 days prior to the start of classes.
- Provide a letter from a physician(s) stating the student can begin full time studies, if the deferment was granted because of physical illness or medical conditions of the student or the student's immediate family member. The letter must be submitted to the Dean at least 90 days prior to the start of classes.

Students that have been granted a deferment are not required to re-apply.

Articulation Agreement Between Midwestern University Programs

At the time of application, students enrolled in a Midwestern University program are guaranteed an admission interview with another Midwestern University program if the student:

1. Is in good standing in the academic program in which the student is currently enrolled or has completed the program within the last 12 months prior to the application and does not have any pending misconduct charges against the student;
2. Meets all admission requirements for the professional program of interest;
3. After a minimum of one full-time quarter of study, achieves a minimum Midwestern University grade point average, derived from all courses completed at Midwestern University, that is equal to or greater than 3.0; and
4. Achieves a score on the professional entrance exam that is not less than one standard deviation below the mean score for students who matriculated into the professional degree program in the previous year.

Note: Students must meet all application deadlines for the professional program of interest. A guaranteed interview does not guarantee admission into the professional program.

International Applicants

An international student must complete a minimum of 30 semester hours of coursework from a regionally accredited college or university in the United States, or from a recognized post-secondary Canadian institution that uses English as its primary language of instruction and documentation. Of the 30 semester hours, 15 hours must be in the sciences, 6 hours in non-remedial English composition, and 3 hours in speech/public speaking.

Applicants who wish to receive credit for prerequisite coursework completed outside the U.S. or at a Canadian institution that does not use English as its primary language of instruction and documentation must submit an official, detailed, course-by-course evaluation obtained from one of the following evaluation services:

- Education Credential Evaluators (ECE): 414/289-3400 (www.ece.org, e-mail: eval@ece.org)

- World Education Service (WES): 800/361-3106 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 (www.jsilny.org, e-mail: info@jsilny.org)

International applicants who do not provide documentation of acceptable U.S. or Canadian course/degree equivalency will not receive credit, and will be required to complete all prerequisite courses at an accredited college or university in the United States, or at a recognized post-secondary institution in Canada that uses English as its primary language of instruction and documentation.

For clarification about recognized post-secondary institutions in Canada that use English as a primary language of instruction and documentation, international applicants should contact the Midwestern University Office of Admissions.

Matriculation Process

The matriculation process begins after applicants receive notification of their acceptance. To complete the matriculation process, applicants must:

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter's tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean. Students who fail to submit all official final transcripts by the stated deadline may jeopardize acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the College.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or College.
7. Students who are requesting an F-1 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the first year of their educational program 6 weeks before the first day of the first quarter of each academic year. Furthermore, the student must prepay tuition and in some cases other mandatory program fees for each successive year at the start of each academic year on the University's stated due date.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific College/Program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Applicants who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the College/Program who does not comply with stated timelines for submission of all required materials will be notified by the College/Program regarding missing materials and the potential forfeiture of the individual's seat.

Student Services

The mission of the Office of Student Services is to offer a broad range of services in the arena outside the formal boundaries of the classroom that support, enhance, nurture, and promote the growth and development of Midwestern University students by contributing to their professional, cultural, social, intellectual, physical, and emotional well being. It is within the mission of Student Services to promote awareness, understanding, and acceptance of all individuals in a diverse world society and to promote a sense of respect, appreciation, and community among the colleges that can be carried on throughout students' professional lives.

The Office of Student Services on the Downers Grove Campus is composed of the Dean of Students, Assistant Deans, Student Activities, Residence Life, Student Counseling Center, the Wellness Center, and Campus Recreation. The Office of Student Services supports all colleges and interacts with students to develop and support programs and services that enrich students' experiences on campus. Examples of these programs include: MWU Student Government, MWU Student Tutoring Program, student social and recreational activities, orientation, academic counseling, stress and time management seminars, multicultural and diversity programming, crisis intervention and personal counseling, intramural sports, and other developmental activities. The Office of Student Services, housed in The Commons and Recreation and Wellness Hall, has an open-door policy and is available to students on a continuing basis offering the support, advice, and encouragement needed to meet students' concerns and challenges.

New Student Orientation

Orientation programs are planned each year to welcome and facilitate the integration of new students into each of the colleges of the University. In addition, students are provided with opportunities to interact socially with peers, meet faculty, administration, and staff members, learn about University services available on campus and develop a sense of belonging to the University community as well as individual college communities.

Student Government

Student government provides a forum for discussing and resolving student concerns, initiating recognition of new student organizations, and conducting reviews of existing student organizations. Student government functions at two levels: (1) the University and (2) the College. The following is a brief description of how student government functions at both levels.

University Level

All students are represented through a campus-wide Student Senate. The Student Senate is composed of representatives from CCOM, CPDG, CHS, CGS, CDMI, and CCO. The members of the Executive Board are the Speaker of the Student Senate, the Vice Speaker, and the Secretary. Meeting every month, the Student Senate provides a mechanism for governance of campus-wide activities and functions. It also provides a vehicle for the exchange of ideas and perceptions concerning student issues that cross college lines.

College Level

Individual college student councils/student government associations function to provide governance for student issues related to the individual colleges, as well as conducting all class and college-wide elections. Adoption of bylaws governing the individual college student councils/student government associations is at the discretion of the elected/appointed officers of these councils/associations. College student councils/student government associations are encouraged to adopt bylaws that are consistent with the bylaws of the governing bodies of the other colleges.

Student Organizations

Student organizations are recognized by the Student Senate, respective student councils/student government associations, and the Dean of Students. Students interested in obtaining more information about existing organizations or having any questions concerning how to apply for membership should contact the president(s) of the respective organization(s). A listing and description of each organization is found in the Student Handbook.

Student Counseling Center

The Downers Grove Campus has both full-time and part-time Student Counselors. The Student Counselors are available to help students at Northwestern University effectively deal with many issues through individual, couples, and family counseling.

Counseling by the on-campus Student Counselors is subsidized through student activity fees and is provided free of charge to all students of Northwestern University. Based on assessment by the counselors, it may be necessary at times to utilize alternate resources for specialized interventions. Referrals will be made to an appropriate specialist; however, these referrals may or may not be covered under the student's health plan. Under these circumstances the student is required to meet expenses not covered under their health plan.

Student Tutor Program

Through the Office of Student Services, Northwestern University offers peer-tutoring services to those students having academic difficulty. Tutoring is designed to enhance test-taking skills, modify study habits and facilitate focus on critical material and content.

Student Health

As deemed appropriate for the protection of students and patients, and in accordance with our clinical affiliation agreements, Northwestern University requires that all students submit to a physical exam and provide documented proof of immunity against certain diseases prior to and during their enrollment.

Wellness and Recreation Hall

Committed to the concept of wellness, Northwestern University encourages students to utilize the facilities available in the Wellness and Recreation Hall. These facilities include a craft room, a music room, gymnasium, a fully equipped weight room, an aerobic exercise room, racquetball/handball courts and athletic fields for various intramural sports.

Additionally, students may participate in numerous activities sponsored by the University, including volleyball, soccer, basketball, dodgeball and softball competitions, and group activities such as yoga, sewing, knitting, beading, stained glass making and varied aerobic classes.

Health Clinic Services

Students can find full service primary care at Northwestern's Family Practice Clinic at the Multispecialty Clinic. Here students may have a visit with one of the two physicians or with the Physician Assistant. Care includes physicals, acute illnesses and injuries, chronic diseases, gynecological care/pap tests, contraception, weight loss support, osteopathic manipulation, and minor procedures like wart cryotherapy and skin biopsies.

Northwestern's student health requirements are also available at the Family Practice Clinic including immunizations, titers, and TB testing.

Student Financial Services

Introduction

The Office of Student Financial Services provides students with information about federal, state, and private sources of financial assistance; helps students coordinate the financial aid application and renewal processes; and assists students in making informed decisions about financing the students' education. The Office of Student Financial Services is also responsible for the billing and collection of all tuition, fees, and institutional charges owed for each quarter.

Midwestern University (MWU) has a very strong commitment to financial literacy through the "Sensible Strategies" program. While many students make substantial, long term financial obligations for professional education, we are committed to assisting our students to become informed consumers through a variety of student-focused programs and events.

Financial Aid Disclosure

Changes in federal, state and/or university policies could affect the Office of Student Financial Services' information printed in this catalog. MWU reserves the right to make changes in any or all information contained therein and to apply such revision accordingly.

Contact Information

Students may contact the Office of Student Financial Services by phone or email below, Monday through Friday between the hours of 8:00 AM and 4:30 PM (CST/ MST).

Downers Grove, IL	Glendale, AZ
Dr. Arthur G. Dobbelaere Support Services Hall, Suite 103 555 31st Street Downers Grove, IL 60515 630/515-6101 ilfinaid@midwestern.edu	Barrel III, Suite 400 19555 North 59th Avenue Glendale, AZ 85308 623/572-3321 azfinaid@midwestern.edu

General Eligibility Requirements

All students seeking financial aid must meet general eligibility requirements regarding citizenship, financial need, and satisfactory academic progress. Students must also complete several certification statements.

Students who are currently in default and have not made satisfactory loan repayments or owe a refund on a Title IV program do NOT qualify for any form of federal aid. Students who have an established history of debt nonpayment may qualify for Federal loan programs but do NOT qualify for campus-based aid.

Financial Aid

The Office of Student Financial Services helps coordinate four types of financial aid: Scholarships, Federal Work-Study, Veterans' Educational Benefits, and Loans.

Federal Work-Study

Student employment is available to eligible students who apply for work-study and demonstrate financial need by completing a FAFSA for the applicable award year. Qualifying students may work on campus, or off-campus if performing community service activities. A contract must be in place prior to working off-campus. The Office of

Student Financial Services determines the total amount students who may be awarded annually. This is NOT a loan program. Students who obtain Federal Work-Study employment are paid biweekly. Awards are based on allocations of federal funding. Students may not start work as a Federal Work-Study student without first receiving approval from Student Financial Services.

Federal Student Loans All Programs

1. Direct Unsubsidized Loan: Graduate students enrolled at least half-time in a degree seeking program may borrow up to \$20,500 per academic year with an aggregate maximum of \$138,500. Students enrolled in the osteopathic medicine, veterinary medicine, dental medicine, optometry, podiatry, clinical psychology and pharmacy programs are eligible for higher annual loan amounts and may borrow the aggregate loan maximum of \$224,000. Current information on interest rates, loan fees and repayment plans for Federal Direct Loans are available at: <https://studentaid.gov/understand-aid/types/loans/interest-rates>
2. Direct Graduate PLUS Loan: Graduate students enrolled at least half- time in a degree seeking program may borrow up to the annual cost of attendance minus other aid. Current information on interest rates, loan fees and repayment plans for Federal Direct Loans is available at: <https://studentaid.gov/understand-aid/types/loans/interest-rates>

Dentistry and Pharmacy

Health Professions Student Loan (HPSL): Graduate students enrolled full time in a degree-seeking program in dentistry or pharmacy may be eligible for HPSL funding.

Priority consideration is given to third and fourth-year students with exceptional financial need based on both student and parent income. HPSL is administered by the Department of Health and Human Services. Award amounts are determined according to the number of applicants and availability of funds. HPSL is a subsidized loan with a 5% fixed interest rate and a 12-month grace period before interest accumulates. Students must be enrolled full-time to receive HPSL funding.

Osteopathic Medicine Program

Primary Care Loan (PCL): Priority consideration is given to certain third or fourth-year students with exceptional financial need who are committed to practicing primary care medicine. This loan offers a one-year grace period and a residency deferment of up to four years. The interest rate is fixed at 5%. Students must agree to enter and complete a residency training program in primary care medicine not later than four years after the date on which they graduate. Students must also agree to practice primary care medicine through the date on which the loan is repaid in full. Students must be enrolled full-time to receive PCL funding.

Scholarships

All Programs

MWU has a variety of scholarships available to current students. Please check the Student Financial Services scholarships webpage for a complete listing of available scholarships. Medical Programs The CCOM Scholarship Fund: CCOM awards scholarships based on a student's academic achievement, exceptional financial need, and motivation toward osteopathic medicine (extracurricular activity involvement at CCOM). The number and amount of this award varies per year. Students are notified by the Office of Development and Alumni Relations or the CCOM Scholarship Committee when applications become available.

Non-Federal Student Loans

Osteopathic Medicine Institutional Loan Programs

CCOM/AZCOM Loan: This institutional loan program is offered to third and fourth-year students. Loan amounts and the availability of funding vary from year to year. Interest will accrue at 5% per annum immediately after graduation unless the student enters an approved internship/residency. Repayment begins 6 months after graduation, unless the student enters into an approved internship/residency.

Other Resources:

Many lenders offer private loans to students as an alternative to federal financial aid. Such loans are not subject to federal student loan regulations. Terms of repayment, including interest rates, vary by loan. Lenders perform a credit check and determine a loan applicant's creditworthiness before approving these loans.

Veterans' Educational Benefits

Midwestern University is approved by the Illinois State Approving Agency to certify enrollment for veteran education benefits for eligible programs. Students who receive veteran education benefits are required to provide official military transcripts to the Office of the Registrar when requesting certification for those benefits. Midwestern University reviews all prior education and training for VA benefit recipients. Midwestern University does not participate in the Yellow Ribbon Program. Because Midwestern University is a private, not-for-profit institution, students who are Illinois veterans are not eligible for Illinois Veteran Grant (IVG) funding.

In accordance with Title 38 US Code 3679(e) Midwestern University adopts the following additional provisions for a student who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits while payment to the institution is pending from the VA. If such payments or disbursements under Chapter 31 or 33 are delayed, Midwestern University will not:

- Impose any penalty or late fee;
- Deny the student access to classes, libraries, or other institutional facilities, or
- Require the student secure alternative or additional funding up to the amounts covered by Chapter 31 or 33.

To qualify for this provision, students may be required to submit to the Office of the Registrar no later than the first day of class:

1. A Certificate of Eligibility (COE) for entitlement to educational assistance under chapter 31 or 33;
2. A "Statement of Benefits" obtained from the Department of Veterans Affairs' (VA) website – eBenefits, or a VAF 28-1905 form for chapter 31 authorization purposes;
3. A written request to use such entitlement;
4. Provide additional information necessary to properly certify the enrollment for benefits.

For more go to the Office of the Registrar for Military and Veteran students <https://www.midwestern.edu/admissions/military-and-veteran-students> Students may contact the Office of the Registrar at ilregistrar@midwestern.edu.

Midwestern University
Office of the Registrar
Dr. Arthur G. Dobbelaere Support Services Hall, Suite 105
555 31st Street
Downers Grove, IL 60515

Financial Aid for Repeat Courses

Students repeating a previously passed course may be eligible to receive federal financial aid for the repeated course. Federal regulations define "passed" as any grade higher than an "F," regardless of program policy requiring a higher qualitative grade.

Students repeating a failed course(s) may be eligible for federal aid to cover the cost associated with the repeat of the failures(s) as long as Satisfactory Academic Progress standards (SAP) are met. Those ineligible for federal aid may qualify for private loans. Students should contact the Office of Student Financial Services to determine eligibility.

Website Information for Financial Aid

Additional information regarding scholarship and loan programs, tuition payment plans, links to federal websites, and the Sensible Strategies financial literacy program can be accessed at [Student Financial Services](#).

Applying for Financial Aid

Cost of Attendance Budget

Each class has an established Cost of Attendance (COA) budget designed to cover a student's educational and living expenses; funding is only allowed within the parameters of the start/end dates of the academic year. The standard COA for each class, developed in accordance with federal guidelines, allows for a reasonable standard of living for a single student in the community. Each year the major components of the budget are reviewed and modified, if necessary, based on changes in costs. To help verify that allowable expenses and amounts included in budgets remain reasonable, the Office of Student Financial Services will periodically survey students to gather information about 'actual' expenses incurred.

Representative expense categories in every budget include:

- Tuition and Fees
- Books, course materials, supplies
- Living expenses for housing and food
- Transportation Expenses
- Personal Expenses including insurances

Some programs may include technology, equipment, or other fees as well. In all instances, federal regulations govern what is allowable in the budgets.

While many students find it necessary to borrow to pay for higher education, we highly encourage students to live as modestly as possible with a thrifty budget. Minimizing debt while in school can lead to financial freedom down the road and lower repayment after graduation. The staff in the Student Financial Services are always available to discuss any questions surrounding budgeting within our COA limits.

Online Application Process

The online financial aid application and instructions are updated annually and made available to all enrolled students. Newly accepted students who have paid the matriculation deposit will have additional access to other relevant financial aid resources in Canvas on the student portal.

Downers Grove Tuition and Fees

Downers Grove Tuition and Fees (for academic year 2023-2024)

Please Note: Tuition rates are subject to change annually. *Tuition is expected to increase between 3% to 4%. Programs with an academic summer trailer will be subject to the tuition increases for the summer quarters.*

Program	Tuition
Chicago College of Optometry ¹	\$47,424

Program	Tuition
Chicago College of Osteopathic Medicine	\$81,125
College of Dental Medicine-Illinois ²	\$90,858
College of Pharmacy, Downers Grove Campus	\$51,832
College of Pharmacy, Downers Grove Campus (3-year program)	\$69,109
College of Graduate Studies, Biomedical Sciences, Master of Arts	\$35,000
College of Graduate Studies, Biomedical Sciences, Master of Biomedical Science	\$44,308
College of Graduate Studies, Master of Science in Precision Medicine	\$10,788
College of Graduate Studies, Precision Medicine Certificate	\$899 per credit
College of Graduate Studies, Master of Public Health	\$12,821
College of Health Sciences, Clinical Psychology	\$37,348
College of Health Sciences, Occupational Therapy	\$50,603
College of Health Sciences, Physical Therapy	\$48,519
College of Health Sciences, Physician Assistant Studies	\$57,112
College of Health Sciences, Speech Language Pathology ³	\$48,729

All programs have a student services fee billed quarterly. More information regarding the student services fee can be located in the Student Handbook. Additional fees may be assessed, including disability insurance or other charges as determined by each College. Students enrolled less than full-time will be charged a per-credit-hour rate. All tuition and fees are subject to change.

Course retakes will be charged in accordance with the Retake policy in the Academic Policies section of the catalog.

Additional fees assessed by Program:

¹Chicago College of Optometry Program:

- Equipment kits - First Year Only - \$4,653

²College of Dental Medicine-Illinois Program:

- Technology Fee - First Year Students Only -\$1,467
- Student Equipment Fee - First Year Students Only - \$1,075
- Supply Fee - All Years - \$5,848
- Instrument Rental Fee -All Years - \$2,699
- Simulation Laboratory and Clinic Fee - All Years - \$7,022

³College of Health Sciences Speech Language Pathology Program:

- Calipso clinical training - First Year Only - \$100

Tuition

The annual tuition is based on full-time enrollment and is divided by the number of quarters in the academic year. Students registered full-time for each quarter will pay full-time tuition rate. Students exceeding the maximum prescribed course load will pay overload charges. Students who are extended will be charged for each additional quarter of enrollment. Students extending the program by one quarter or less will be charged according to the

enrollment status. Students completing their clinical rotations pay a fixed tuition rate each quarter. Students are not charged on a per credit basis, but pay a fixed tuition rate each quarter during the completion of the rotations based on the annual tuition of the program.

Payments

Students are encouraged to pay all tuition and fees via [Midwestern University's secure website](#). If a student is receiving financial aid, the account should not be paid in full until the financial aid has been applied. If the account is paid in full prior to financial aid posting, the payment will be returned to the credit card used. Options for payment include online check payment, debit card, or credit card. MWU accepts American Express, Discover, MasterCard, and Visa. For those paying by mail or in person, all checks and money orders should be made payable to Midwestern University, with the MWU student ID number indicated on the front. Cash payments are limited to \$250 or less. Tuition due dates will be publicized [online](#). If tuition payments are made through the mail, please address the envelope as follows:

Midwestern University
Office of Student Financial Services
Dr. Arthur G. Dobbelaere Support Services Hall, Suite 103
555 31st Street
Downers Grove, IL 60515

Students who fail to pay balances owed as scheduled will have the students' accounts processed according to Midwestern University's Overdue Accounts Policy.

Payment Plans

Payment plans allow students to divide an unpaid balance into three equal payments over the course of the quarter for which the balance is due. Policies regarding the payment plans:

1. All financial aid must be applied toward the quarter the balance is due; payment plans will be established for the balance remaining.
2. It will be mandatory for students to utilize MWU's electronic billing and payment system, available at <https://online.midwestern.edu>, to set up the payment plan each quarter.
3. A minimum balance of \$200 is required to participate in a payment plan.
4. The plan is interest free.
5. Any unpaid balance must be paid in full by the end of each quarter.
6. To maintain eligibility, students must adhere to the payment plan due dates and not be, or have been late on any current or prior MWU payment plans.

International Student Prepayment Plan

All accepted international matriculates who are requesting an I-20 document to obtain an F-1 student visa or who are not U.S. citizens/ permanent residents/ eligible non-citizens must prepay the annual tuition, and in some cases other mandatory program fees 45 days prior to the first day of the first quarter. Continuing students can pay on a per quarter basis by the scheduled due dates.

Credit Cards

The Office of Student Financial Services accepts credit cards for payment of tuition, fees, insurances, on-campus housing, and other direct costs; however, the following requirements must apply:

1. All financial aid funds must first be applied to the balance before using a credit card for payment.

2. When using a third party's credit card, the Student Financial Services Office must receive authorization from the cardholder.
3. MasterCard, Visa, Discover and American Express are accepted.

Important Information about Fees and Charges

Fee Charges

All full and part-time degree seeking students enrolled in an academic year must pay the student services and applicable program specific fees. Students who are enrolled 3 or 4 quarters per year will be charged the full annual student services and program specific fees. Students who are enrolled in a program that ends with 1 quarter over the summer, or 2 quarters over the summer and fall will be charged 25% or 50% of the annual student services and program specific fees, respectively. The student services fee funds such areas as the recreation center, sports intra-murals, counseling services, operation of the student lounge, student government, student representation in government, and student events on and off-campus. The program specific fees fund the items described above in the Tuition and Fees section.

Add/Drop Period

Charges will be re-assessed accordingly for courses added/dropped within the add/drop period depending on the student's revised enrollment status (i.e. full-time, half-time, less than half-time, etc.). Please note that if all courses are dropped and a student is determined to be withdrawn for the entire quarter, tuition and fee charges may be assessed and will be based upon guidelines stated in the MWU Refund Policy: Return of Title IV and VII Funds.

Partial Course Load

Students registered for courses that total fewer than 12 credit hours per quarter are considered to have a partial course load. Prior authorization from the College Dean is required before students can begin a quarter less than full-time. In such circumstances, tuition is charged on a per credit hour basis. The tuition rate for each quarter is calculated based on the current quarterly full-time tuition divided by the standard full-time credit hours of the program the student is enrolled in for the respective quarter enrolled. The per-credit hour rate is multiplied by the enrolled credit hours to equal the tuition charge for the quarter.

Course Overload

Students registered for more courses than the prescribed schedule in a given quarter are considered registered for a course overload. Students must receive prior approval from the College Dean. Tuition is billed for the additional courses as follows:

- Course overloads are billed the annual tuition rate plus an additional per-credit rate.
- The per-credit rate is calculated by dividing annual tuition by the number of quarters to determine a quarterly rate. The quarterly rate is divided by the prescribed course load credit hours as specified for the program (below).
- Course overloads are defined as follows: CCOM > 31 credit hours; CDMI > 30 credit hours; CPDG > 21 credit hours; CCO > 30 credit hours; CHS Graduate > 23 credit hours.

Overdue Accounts

The Student Accounts department will follow up with students to collect past due accounts. The overall goal is to encourage all students to pay balances on time as to not be faced with the consequences as outlined below.

Consequences of past due accounts can include any or all items listed below:

1. A 1.5% late fee will be assessed at 10 days past due for all balances of \$500 or more. Balances of \$499 or less are assessed a fixed \$7.50 late fee.
2. Past due notices will be sent via email.
3. Follow-up contacts will be made but are not limited to phone calls.
4. At 15 days past due, the College Dean will be notified of the delinquency.
5. At 30 days past due, student may be dropped from enrollment by the College.
6. If a student is suspended or terminated from MWU, the student must reapply for admission to MWU.
7. Withholding of academic transcripts.
8. Continued non-payment of account puts the student at risk of being referred to a third party for collection. This may result in a collection fee assessed and the delinquent account may be reported to one or more of the national credit bureaus.

Note: Students must notify Student Accounts of any, and all circumstances that may necessitate an exception to the payment deadlines. Exceptions to this policy may be made for the following reasons:

1. Circumstances beyond the student's control (i.e. non-arrival of financial aid funds applied for well in advance of the due date);
2. A payment plan has been approved by the Office of Student Financial Services

Returned Checks

Students are notified via email and phone when checks are returned. A replacement method of payment is required to resolve the balance. After two returned checks a student will be required to pay by cashier's check or money order. No exceptions will be made.

Receiving Funds

Living Expense Loan Refund

Students who borrow funds for their living expenses will receive periodic refunds via direct deposits to cover such expenses including room and board, transportation expenses, books and supplies, and personal expenses including insurances. Students have the obligation to budget funds appropriately to cover expenses month to month.

Through our comprehensive "Sensible Strategies" program, the Office of Student Financial Services provides a variety of resources to assist students with important money management skills; these include budgeting, credit cards, managing your credit, money management for couples, and our innovative financial literacy tools. Go to [Financial Services Sensible Strategies](#).

Direct Deposit

Direct deposit for refunds is highly recommended. Students without direct deposit will be issued a paper refund check mailed to the address on file.

MWU will not be held responsible for any bank fees or charges that result due to insufficient funds in a student's bank account. MWU is also not responsible for late charges on any past due bills a student may incur. It is the student's responsibility to ensure the deposited funds have cleared the bank.

Direct deposit or refund checks made in error to the student must immediately be returned in full to MWU.

Satisfactory Academic Progress for Financial Aid

Eligibility

As required by Federal law, reasonable standards of satisfactory academic progress for maintaining financial aid eligibility have been established by Midwestern University for all degree granting programs. These standards apply to all students.

Purpose

To establish, publish, and apply reasonable standards of satisfactory academic progress for financial aid eligibility as required by federal law for all aid types, including federal, state, or institutional assistance and veterans' educational benefits administered by Midwestern University.

Policy

Federal regulations require that all students receiving Federal Title IV financial aid funds maintain Satisfactory Academic Progress (SAP), which states that both qualitative (GPA) and quantitative (pace/maximum timeframe) measures must be met and maintained for continuous financial aid eligibility as outlined in the Midwestern University Standards of Satisfactory Academic Progress for Financial Aid Eligibility.

Qualitative Measures

- The GPA measurement is fixed. Midwestern University does not use the graduated measurement.
- The Biomedical Sciences (M.A.) students are evaluated each quarter since the program is one year in length. All other programs are reviewed annually at the end of spring quarter.
- All students must maintain at least a "C" average each year in their respective programs in order to progress (Midwestern University Standards of Satisfactory Academic Progress for Financial Aid Eligibility).
- Grades affect the cumulative GPA for summer courses taken at another institution used to advance to the next class level at Midwestern University. Grades from students matriculating into a program from another school do not affect the GPA.
- If a Biomedical Sciences (M.A) student does not meet the minimum GPA standard at the end of a quarter, the student will be placed on financial aid warning. If a student does meet the standards at the end of the next quarter, the student will be placed on financial aid suspension with the right to appeal.
- All other students that do not meet the minimum GPA standard by the end of spring quarter will be placed on financial aid suspension with the right to appeal.

Quantitative Measures

The quantitative measure defines the pace at which all students must progress to ensure program completion within the maximum timeframe permitted. This period of time cannot exceed 150% of the published length of each program. The completion ratio is calculated by dividing the cumulative "successfully completed" credit hours by the cumulative "attempted" credit hours. Transfer credit hours are included in the completion ratio for all programs. Students must earn a minimum of 67% of the cumulative credits attempted (not including audited courses) at the time of evaluation, and all periods of enrollment are included regardless of whether or not the student receives financial aid. Pace is evaluated quarterly for the Biomedical Masters of Arts students and annually for all other students.

Grades of "W" (withdrawals) made after the first week of classes will be included in the number of attempted credit hours and calculated against the quantitative (pace) measure. Grades of "I" (incomplete) will be included in the number of attempted credit hours, but will not be included in the qualitative (GPA) measure.

Students are governed by the performance standards of the department in which students are enrolled. Programs longer than a year must meet both quantitative/qualitative measures on an annual basis; programs one year or less must meet both measures at the end of each quarter.

Maximum Time Frame

Midwestern University is a graduate/professional school. Maximum time frame is defined by the length of the program. Length of programs is measured in years for clinical programs and credit hours for non-clinical programs. See chart titled Midwestern University Standards of Satisfactory Academic Progress for Financial Aid Eligibility below for specific timeframes by program.

Quarterly SAP Reviews

The quarterly SAP review process only applies to students enrolled in the Biomedical Science (M.A.) program. A financial aid warning is for one quarter (payment period) only. Any Biomedical Sciences (M.A.) students that are not achieving SAP for the first time at the end of a quarter are automatically placed on financial aid warning. Students are informed that they are still eligible for federal aid, but students must achieve a 2.75 GPA and/or 67% pace by the end of the quarter. If not, students will be placed on financial aid suspension with the right to appeal. Students are allowed one warning period.

Quarterly SAP Review Appeals

Any student placed on financial aid suspension will be notified of the loss of financial aid eligibility. Student must complete the SAP Appeal Form and work with the Program to come up with an approved academic plan. Both the SAP Appeal Form and approved Academic Plan must be submitted to the Office of Student Financial Services, who will forward it to the University Financial Aid Committee for consideration. The University Financial Aid Committee will only review completed appeals; all required documentation must be included.

A student is limited to a maximum of one (1) appeal of financial aid status during the course of the student's enrollment in the Biomedical Science (M.A.) Program at Midwestern University. Students who do not attain satisfactory academic progress at the conclusion of the period of financial aid probation will be placed on financial aid suspension permanently and will not regain financial aid eligibility for the remainder of the student's enrollment in the Biomedical Science (M.A.) Program at Midwestern University.

Annual SAP Reviews (Multi-Year Programs)

If SAP is not achieved at the end of an academic year, federal aid eligibility will be suspended. Students cannot receive Title IV financial aid funds unless the suspension is successfully appealed and the student is placed on probation. A student on probation status may receive Title IV financial aid for a subsequent quarter. For students who need longer than one quarter (payment period), an Academic Plan is developed to help ensure that the student can meet SAP standards by a specific point in time. While programs have discretion to determine the length of the Academic Plan, students must be monitored at the end of each quarter to confirm all components as specified in the Academic Plan are being met. Probation statuses may be suspended and the student will lose eligibility for Title IV financial aid at the end of any quarter when an Academic Plan requirements are not met. Once Title IV eligibility is lost, students must continue at the individual's own expense until SAP requirements as set forth in this policy are achieved.

Annual SAP Review Appeals

Any student placed on financial aid suspension will be notified of the loss of financial aid eligibility. A student must complete the SAP Appeal Form and work with the Program to come up with an approved academic plan.

Both the SAP Appeal Form and approved Academic Plan must be submitted to the Office of Student Financial Services, which will forward it to the University Financial Aid Committee for consideration. The University Financial Aid Committee will only review completed appeals; all required documentation must be included.

A student in multi-year programs is limited to a maximum of two (2) appeals of financial aid status during the course of enrollment in any single program at Northwestern University that is not covered by the quarterly SAP appeals process above. Students who do not attain satisfactory academic progress at the conclusion of the second nonconsecutive period of financial aid probation will be placed on financial aid suspension permanently and will not regain financial aid eligibility for the remainder of the student's enrollment in that specific program at Northwestern University.

Financial Aid Probation

It is the policy that all students submit an Academic Plan with the SAP appeal application. Academic Plans are developed by Program Directors, faculty advisors, or the Office of the Dean. The student meets with the academic advisor regarding the Academic Plan throughout the academic year and also takes advantage of the tutoring services on campus.

Maximum Appeals

Any student placed on financial aid suspension will be notified of the loss of financial aid eligibility. Students must complete the SFS Appeal Form and work with the Program to come up with an approved Academic Plan. Both the SFS Appeal Form and approved Academic Plan must be submitted to the Office of Student Financial Services, which will forward it to the University Financial Aid Committee for consideration. The University Financial Aid Committee will only review completed appeals; all required documentation must be included.

A student is limited to a maximum of two (2) appeals of financial aid status during enrollment at Northwestern University (Biomedical students M.A. are allowed a maximum of one appeal). Students who do not attain satisfactory academic progress at the conclusion of the second nonconsecutive period of financial aid probation will be placed on financial aid suspension permanently and will not regain financial aid eligibility for the remainder of their enrollment period at Northwestern University.

Regaining Eligibility

A student who chooses not to appeal or has an appeal denied has the option of attending at the student's own expense. Students who attend at the student's own expense will be eligible to have aid reinstated after successfully completing the quarter (i.e., meeting SAP standards). Students in this situation should contact the financial aid office for counseling.

Treatment of non-punitive grades, repeated courses, audit courses, pass/fail courses, withdrawals and incompletes

Grades of "W" (withdrawals) made after the first week of class will be included in the number of attempted credit hours and calculated against the quantitative (pace) measure.

A student who has "W's" (withdrawals) for a quarter is considered withdrawn for Title IV purposes.

Grades of "I" (incomplete) will be included in the number of attempted credit hours, but will not be included in the qualitative (GPA) measure.

Classes in which students are auditing cannot be included in the amount of credit or contact hours earned when determining eligibility for financial aid. In addition, the following grades will not be considered as credit or contact

hours earned/attempted for purposes of awarding federal financial aid: "I" Incomplete, "IP" In-Progress, "F" Failure, or "W" Withdrawal or "WF" Withdrawal/Failing. Therefore, audited courses are not included in either the GPA or Pace.

Pass/Fail courses are included in both the attempted and completed hours, but not the GPA.

Repeated courses are included in the GPA and Pace (attempted and completed). A program usually only allows a student to repeat a course once.

Non-punitive grades are not addressed in Midwestern University policy. Courses assigned an "I" grade must be completed within 10 calendar days from the end of the final examinations for the quarter or they will be automatically converted to a grade of "F". An "IP" grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days. Authorization of the College of Dean is required and the completion period should not typically exceed one quarter.

MWU Standards of Satisfactory Academic Progress for Financial Aid Eligibility

Clinical Programs	Published Length	150% Limit
Osteopathic Medicine	4 years	6 years
Pharmacy 3 year program	3 years	4.5 years
Pharmacy 3.5 year program	3.5 years	5.25 years
Physician Assistant	2.25 years	3.33 years
Occupational Therapy	3.00 years	4.50 years
Doctor of Dental Medicine	4 years	6 years
Optometry	4 years	6 years
Physical Therapy	3 years	4.5 years
Speech Language Pathology	2 years	3 years

Non-Clinical Programs	Published Length	150% Limit
Biomedical Sciences (M.B.S.)	72 credits	108 credits
Biomedical Sciences (M.A.)	45 credits	67.5 credits

Academic Status Chart for Determining Financial Aid Eligibility and Enrollment Status

Academic Status	Credit hours per quarter
Full-Time	12 minimum
Three-Quarter Time	9-11 credit hours
Half-Time	6-8 credit hours
Less than Half-Time	1-5 credit hours

Please Note: Classes in which students are auditing cannot be included in the amount of credit or contact hours earned when determining eligibility for financial aid. In addition, the following grades will not be considered as credit or contact hours earned/attempted for purposes of awarding federal financial aid: "I" Incomplete, "IP" In-Progress, "F" Failure, or "W" Withdrawal, or "WF" Withdrawal/Failing.

The above policy is subject to change during the academic year. If revised, an addendum will be distributed to all enrolled students.

Financial Aid Eligibility Policy and Procedure–Leave of Absence/Withdrawals/ Return of Title IV Funds Policy

1. Students requesting a leave of absence while enrolled at Midwestern University must adhere to the policies and procedures established by the College Dean. In addition, students receiving federal financial aid must understand and follow Federal Title IV and Title VII leave of absence regulations as stated in this policy, which may affect the amount of financial assistance received. As stipulated by federal financial aid regulations, a student receiving Title IV or Title VII assistance, shall be granted a leave of absence under the following conditions:
 - The student must request the leave of absence in writing to the Program Director, if applicable, with approval from the College Dean. The letter should clearly state the reason(s) for the requested leave of absence.
 - MWU will not charge the student any additional institutional charges (tuition or program related fees) during a leave of absence.
 - Students on leave of absence are entitled to all the services afforded by the student services fee.
 - A subsequent leave of absence may be granted for the same student due to an unforeseen circumstance such as military duty, jury duty or a circumstance covered under the Family and Medical Leave Act of 1993 (FMLA).
 - Any additional leaves of absence requests may not exceed a total of 180 days in a 12-month period. This 12-month period begins with the first day of the initial leave of absence.
 - There must be a reasonable expectation that a student will return from a leave of absence to continue enrollment at MWU.
2. Students granted approved leave of absences will maintain financial aid eligibility and all charges will remain on the student account. Students are not eligible to receive any additional financial aid during a leave of absence.
3. For purposes of administering federal financial aid, a student who is receiving Title IV or Title VII financial aid funds and is granted a leave of absence that does not meet the above guidelines will be considered to have withdrawn from MWU for financial aid purposes.
4. A student who received financial aid prior to the leave of absence and fails to return will be considered to have withdrawn from MWU for financial aid purposes as of the first day in which the leave of absence was granted. The Office of Student Financial Services will have 45 days after the day of determination to calculate a refund and return funds to the lender.
5. For students who do not begin attendance the quarter for which financial aid was received, SFS must return the full amount of unearned Title IV funds no later than 30 days after the institution becomes aware that the student will not or has not commenced attendance.
6. Upon receipt of the leave of absence notification, the Office of Student Financial Services informs the student of loan obligations, possible revisions in aid, deferment options, and consequences of failure to return may have on the student's repayment term, including the exhaustion of the student's grace period.
7. Students are not eligible to receive any financial aid during periods of non-attendance. Any refunds received must be returned in full.
8. All outstanding balances must be paid in full prior to a student's return from a leave of absence.

Notification of Withdrawal

1. A student must provide written notification and documentation, if applicable, to the appropriate College Dean or Program Director, stating the reason for withdrawal from MWU. If approved, the College Dean will conditionally approve a withdrawal until all clearances are obtained.
2. Upon receipt of a student's official notification, the withdrawal date is the earlier of either the date the student begins the school's withdrawal process or otherwise provides notification. In some cases, the student's last date of attendance at a documented academically-related activity (exam, turning-in of assignment, etc.) may be used as the withdrawal date.

3. The student must receive clearance for withdrawal from the MWU departments on the <http://online.midwestern.edu> leave system. The online system notifies offices such as Student Financial Services and the Registrar to process the withdrawal, prepare the required financial aid exit, and calculate the return of unearned federal Title IV aid and all other aid, as appropriate.
4. Upon submission of all completed documentation and adherence to all clearance procedures, the College Dean will provide an official letter of withdrawal to the student. If a student does not complete the online exit counseling requirement, the Registrar will withhold official academic transcripts.
5. The withdrawal date for students who do not provide notification will be the earlier of the midpoint of the payment period or the date the school determines is related to the circumstances beyond the student's control.

Return of Title IV Policy

MWU has instituted and adheres to all requirements included in the Federal Formula for Return of Title IV Funds as specified in Section 484B of the Higher Education Act of 1965 (as amended). This policy will apply to Title IV and VII funding.

Student Financial Services (SFS) office is required by Federal law to recalculate financial aid eligibility for students who withdraw, take a leave of absence, or are dismissed prior to completing 60% of the quarter. If a R2T4 calculation is required during a quarter, SFS must return the amount of unearned Title IV funds to Department of Education no later than 45 days after the student's Date of Determination of the withdrawal. The calculation for Return of Title IV funds is based upon the official date of determination by the Registrar's Office.

The number of days completed is divided by the total number of days in the enrollment period to identify the percentage of time the student has completed. The percentage of Title IV aid earned is equal to the percentage of the enrollment period completed. After 60% of the enrollment period is completed, there is no return of the Title IV funds for that period and the student is considered to have earned 100% of the Title IV funds received. If a student officially withdraws while on a schedule break of five consecutive days or more, the withdrawal date is the last date of scheduled class attendance prior to the start of the scheduled break.

Refund Policy

The refund policy includes the following guidelines:

1. Title IV funds include the following programs available at MWU - Direct Unsubsidized loans, Direct Graduate PLUS loans, and the Federal Work-Study (FWS) program. However, FWS monies awarded or earned by the student will always be excluded from the refund calculation.
2. Title VII funds include Health Professions Student Loans (HPSL) and Primary Care Loans (PCL).
3. Withdrawal On or Before the First Day of Classes of the Quarter for Which the Student Is Charged.
 - 100% of tuition, University housing, and all other fees will be credited.
4. Withdrawal After the First Day of Classes up to 60% of the Quarter for Which the Student is Charged.
 - Tuition, student services fee, disability, health insurance and information technology fee will be prorated proportional to the number of days completed divided by the number of days in the payment period for which the student was enrolled. On-campus housing will be adjusted accordingly.
 - Students who cease attendance, including leave of absence, for any reason are not eligible to receive any type of loan disbursements.
 - Title VII recipients will have future disbursements cancelled if the student is not enrolled full-time in subsequent quarters.
5. Withdrawal after the 60% mark of the Quarter for which the student is charged:
 - No refund of tuition will be made.
 - University housing for the quarter will be credited according to the terms on the housing contract.
6. If a Subsequent Quarter(s) Has Been Prepaid

- Tuition and other fees will be adjusted accordingly.
7. All applicable refunds will be distributed in the following order as prescribed by federal law:
 - Direct Unsubsidized Loan
 - Direct Graduate PLUS Loan
 - Other Title IV Aid Programs
 - Other Federal Sources of Aid including Title VII funding
 - Other state or private aid *
 - Institutional Aid (departmental loans and scholarships)**
 - The Student ***

* MWU will refund scholarship monies in accordance with the sponsoring agency's policy.

** All refunds of institutional aid will be prorated based on the remaining weeks of the current quarter. Subsequent quarters of awarded institutional funds will be cancelled; therefore, no refunds will be made.

*** MWU will only refund monies to a student who does not owe a repayment of non-institutional funds or who does not have unpaid current year charges owed to the institution.

8. Students who borrowed and received monies from the Federal Direct Loan Program (Unsubsidized Loans, Graduate PLUS Loans); Institutional (MWU) Loans, Health Professions Student Loans, Primary Care Loans and/or private loans will be legally responsible and obligated to repay in accordance with the terms and conditions outlined in the promissory note(s).
9. Upon request by the student, examples of refund worksheets and calculations will be available for distribution in the SFS office.
10. Students who feel that individual circumstances warrant exceptions from published policy may appeal the MWU Refund Policy. Student appeals need to be submitted to the Director of Student Financial Services & Registrar.

Withdrawal Exemptions for Title IV

- A student is not considered withdrawn if the student completes all the requirements for graduation from their program before completing the number of days or hours in the quarter that the student was scheduled to attend
- A student is not considered withdrawn if the student successfully completes:
 - One module (clinical rotation) that includes 49% or more of the number of countable days in the quarter, excluding scheduled breaks of 5 or more consecutive days and all days in between modules (clinical rotation blocks).
 - A combination of modules (clinical rotations) that when combined contains 49% of more of the number of countable days in the quarter, excluding scheduled breaks of 5 or more consecutive days and all days between the modules.
- A student is not considered to have withdrawn if the student successfully completes coursework equal to or greater than 6 credits for the quarter.

Successful completion of coursework means earning a passing grade.

Post-Withdrawal Disbursements

If the total amount of Title IV loan assistance that the student earned is greater than the total amount of Title IV loan assistance that was disbursed to the student as of the date of the institution's determination that the student withdrew, the difference between these amounts must be treated as a post-withdrawal disbursement.

SFS must provide written notification to the student prior to making any post-withdrawal disbursement within 30 days of the student's date of determination. MWU must receive permission from the student before it can release the post withdrawal disbursement. The student will have 14 days to respond in writing to the notice and if a response is not received within the timeframe, the school will not process the disbursement. The post-withdrawal disbursement notification will include information of the funds that will be applied to the student's account first, and any resulting credit balance will be refunded to the student as soon as possible and no later than 14 days. Students may choose to decline some, or all loan funds so that they do not incur additional debt. Please note that accepting a post-withdrawal disbursement of student loan funds will increase a student's overall student loan debt, which must be repaid under the terms of the Master Promissory Note.

MWU may use all or a portion of the post-withdrawal disbursement of funds for tuition, fees, and housing, but must have the student's permission to apply the post-withdrawal disbursement to any other school charges. If the student does not give permission, the student will be offered the funds in the form of a refund.

All credit balances resulting in a recalculation from the R2T4 will be refunded as soon as possible and no later than 14 days.

Institutional Refund Formula (Cash and Private Loans)

If a student withdraws during a quarter, MWU will determine the amount of tuition and fees that were unearned by the institution. It will be calculated by determining how many remaining calendar days there are in the payment period divided by the total calendar days in the payment period. (Scheduled breaks of five or more calendar days are excluded in the calendar day count.) The Institution will pay back to the student (or lender) the unearned amount. After 60% of the days in the payment period have passed, the institution will have earned the total amount paid for that payment period. This method will be applied whether or not the student received any form of financial aid.

Tuition Assistance (TA) Refunds (Military & Veterans' Educational Benefits)

All Tuition Assistance (TA) funds will be returned according to the university's institutional refund policy. Up to the start date, 100% of all TA funds will be returned to the appropriate military service when the service member fails to: begin attendance, start a course (regardless if the student starts other courses), or the course is cancelled. All TA Funds will be returned directly to the military service, not to the service member.

Academic Calendar

Summer Quarter 2023

Event	Date
Classes Begin (PR-II/PRC-II))	May 22, 2023
Last Day to Add/Drop Classes (PR-II/PRC-II)	May 26, 2023
Classes Begin (PS-III/MPH/PR-I/PRC-I)	May 30, 2023
Rotation Begins - APPE Block 5 (PS-III AGO)/APPE Block 2 (PS-IV SGO)	May 30- July 7, 2023
Clinical Rotation (OP-IV)	May 30 - August 18, 2023
Orientation (PA-I/PS-I/PT-I)	May 31 - June 2, 2023
Last Day to Add/Drop Classes (PS-III/MPH/PR-I/PRC-I)	June 2, 2023
Classes Begin (PS-II/PA-I/PS-I/PT-I/PT-III/OT-II/OT-III/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/DMD-III/DMD-IV/OP-III)	June 5, 2023
Didactic Course (PA-II)	June 5 - 16, 2023
Clinical Rotation Begins - Block 1 (MS-III/MS-IV)	June 5 - July 2, 2023
Last Day to Add/Drop Classes (PS-II/PA-I/PS-I/PT-I/PT-III/OT-II/OT-III/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/DMD-III/DMD-IV/OP-III)	June 9, 2023
Classes Begin (PT-II)	June 12, 2023
Last Day to Add/Drop Classes (PT-II)	June 16, 2023
Juneteenth (Observed) *No Classes*	June 19, 2023
Didactic Course (PA-III)	June 19 - 23, 2023
Rotations (PA-II)	June 19 - December 1, 2023
Elective Rotations (PA-III)	June 26 - August 18, 2023
Clinical Rotation - Block 2 (MS-III/MS-IV)	July 3 - July 30, 2023
Independence Day Observed *No Classes*	July 4, 2023
Rotation - APPE Block 6 (PS-III AGO)/APPE Block 3 (PS-IV SGO)	July 10 - August 18, 2023
Last Day of Classes (PR-I/PRC-I/PR-II/PRC-II)	July 30, 2023
Clinical Rotation - Block 3 (MS-III/MS-IV)	July 31 - August 27, 2023
Last Day of Classes (PS-III)	August 4, 2023
Last Day of Classes (MPH)	August 6, 2023
Quarterly Exams (PS-III)	August 7 - 11, 2023
Last Day of Classes (PA-I/PS-I/PT-I/PT-III/OT-II/OT-III/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/OP-III)	August 11, 2023
Quarterly Exams (PA-I/PS-I/PT-I/PT-III/OT-II/OT-III/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/OP-III)	August 14 - 18, 2023
Quarter Break (PS-III)	August 14 - 18, 2023
Grades Due (PS-III)	August 15, 2023
Degree Completion Date - PsyD (PSY-IV/PSY-V)	August 18, 2023
Last Day of Classes (DMD-III/DMD-IV/PT-II)	August 18, 2023
Didactic Course (PA-III)	August 21 - 25, 2023
Quarter Break (OT-III)	August 21 - 25, 2023
Quarterly Exams (PT-II)	August 21 - 25, 2023
Quarter Break (PS-I/PA-I/PT-I/PT-III/OT-II/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/DMD-III/DMD-IV/OP-III)	August 21 - September 1, 2023
Grades Due (PS-I/PA-I/PT-I/PT-III/OT-II/OT-III/MBS-II/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-II/DMD-II/DMD-III/DMD-IV/OP-III)	August 22, 2023

Event	Date
Last Day of Classes (PS-II) (12 weeks for IPPES)	August 25, 2023
Degree Completion Date MMS (PA-III)	August 25, 2023
Degree Completion Date (PS-III AGO)	August 25, 2023
Quarter Break (PS-II)	August 28 - September 1, 2023
Quarter Break (PT-II)	August 28 - September 1, 2023
Grades Due (PS-II)	August 29, 2023
Graduation PS-III AGO Class of 2023	TBA

Fall Quarter 2023

Event	Date
Orientation (MS-I)	August 1 - 3, 2023
Classes Begin (MS-I/MS-II/PR-I/PRC-I/PR-II/PRC-II)	August 7, 2023
Last Day to Add/Drop Classes (MS-I/MS-II/PR-I/PRC-I/PR-II/PRC-II)	August 11, 2023
Orientation (OP-I)	August 16 - 18, 2023
Classes Begin (OP-I)	August 21, 2023
Rotation - APPE Block 4 (PS-IV SGO)/APPE Block 1 (Class 2024)	August 21 - September 29, 2023
Last Day to Add/Drop Classes (OP-I)	August 25, 2023
Classes Begin (MPH)	August 28, 2023
Clinical Rotations (OP-IV)	August 28 - November 17, 2023
Fieldwork II B (OT-III)	August 28 - November 17, 2023
Clinical Rotation Begins - Block 4 (MS-III/MS-IV)	August 28 - September 24, 2023
Orientation (OT-I/MBS-I/MABS/PSY-I/SLP-I)	August 29 - 30, 2023
Orientation (DMD-I)	August 29 - 31, 2023
Commencement (IL CHS)	August 31, 2023, 9:30 a.m.
Last Day to Add/Drop Classes (MPH)	September 1, 2023
Labor Day *No Classes*	September 4, 2023
Classes Begin (PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-II/OP-III)	September 5, 2023
CPDG Dean's Convocation (11:10 a.m.)	September 8, 2023
Last Day to Add/Drop Classes (PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-II/OP-III)	September 8, 2023
Clinical Rotation - Block 5 (MS-III/MS-IV)	September 25 - October 22, 2023
Rotation - APPE Block 5 (PS-IV SGO)/APPE Block 2 (Class of 2024)	October 2 - November 10, 2023

Event	Date
White Coat Ceremony (CCOM/CPDG)	Saturday, October 7, 2023, 10 a.m.
White Coat Ceremony (CHS/CDMI/CCO)	Saturday, October 7, 2023, 2 p.m.
Last Day of Classes (PR-I/PRC-I/PR-II/PRC-II)	October 22, 2023
Clinical Rotation - Block 6 (MS-III/MS-IV)	October 23 - November 19, 2023
Last Day of Classes (MPH)	November 5, 2023
Last Day of Classes (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/OP-I/OP-II/OP-III)	November 10, 2023
Quarterly Exams (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	November 13 - 17, 2023
Last Day of Classes/Clinical Courses (DMD-III/DMD-IV)	November 17, 2023
Quarter Break (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	November 20 - 24, 2023
Grades Due (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/PT-III/OT-I/OT-II/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	November 21, 2023
Thanksgiving Day Observed *No Classes*	November 23 -24, 2023

Winter Quarter 2023

Event	Date
Classes Begin (PR-I/PRC-I/PR-II/PRC-II)	October 30, 2023
Last Day to Add/Drop Classes (PR-I/PRC-I/PR-II/PRC-II)	November 3, 2023
Rotations - APPE Block 6 (PS-IV SGO)/APPE Block 3 (Class of 2024)	November 13 - December 22, 2023
Clinical Rotation - Block 7 (MS-III/MS-IV)	November 20, 2023 - January 7, 2024
Classes Begin (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH)	November 27, 2023
Practicum III (PT-III)	November 27, 2023 - February 2, 2024
Clinical Rotation (OP-IV)	November 27, 2023 - February 16, 2024
Last Day to Add/Drop Classes (MS-I/MS-II/PS-I/PS-II/PA-I/PA-II/PT-I/PT-II/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH)	December 1, 2023
Didactic Course (PA-II)	December 4 - 15, 2023
Winter Break (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH/PR-I/PRC-I/PR-II/PRC-II)	December 16, 2023 - January 1, 2024
Winter Break (PA-II)	December 16, 2023 - January 1, 2024
Winter Break (MS-III/MS-IV)	December 16, 2023 - January 1, 2024

Event	Date
Winter Break (PS-III)	December 16, 2023 - January 1, 2024
Rotations (PA-II)	January 1 - June 14, 2024
Fieldwork II-A (OT-II)	January 2 - March 22, 2024
Doctoral Internship (OT-III)	January 2 - April 19, 2024
Classes Resume (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH)	January 2, 2024
Clinical Rotation - Block 8 (MS-III/MS-IV)	January 8 - February 4, 2024
Rotations - APPE Block 7 (PS-IV SGO)/APPE Block 4 (Class of 2024)	January 8 - February 16, 2024
Martin Luther King, Jr. Day *No Classes*	January 15, 2024
Quarter Break (PT-III)	February 5 - 9, 2024
Clinical Rotation - Block 9 (MS-III/MS-IV)	February 5 - March 3, 2024
Last Day of Classes (PR-I/PRC-I/PR-II/PRC-II)	February 11, 2024
Practicum IV (PT-III)	February 12 - April 19, 2024
Last Day of Classes (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/OP-I/OP-II/OP-III)	February 16, 2024
Last Day of Classes (MPH)	February 18, 2024
Quarterly Exams (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/OP-I/OP-II/OP-III)	February 19 - 23, 2024
Last Day of Classes/Clinical Courses (DMD-III/DMD-IV)	February 23, 2024
Degree Completion Date (PS-IV SGO)	February 23, 2024
Quarter Break (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	February 26 - March 1, 2024
Grades Due (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/PT-II/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	February 27, 2024
Graduation (PS-IV SGO) Class of 2024	TBA

Spring Quarter 2024

Event	Date
Rotations APPE Block 5 (Class of 2024)	February 19 - March 29, 2024
Classes Begin (PR-I/PRC-I/PR-II/PRC-II)	February 26, 2024
Clinical Rotations (OP-IV)	February 26 - May 17, 2024
Last Day to Add/Drop Classes (PR-I/PRC-I/PR-II/PRC-II)	March 1, 2024
Classes Begin (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH)	March 4, 2024

Event	Date
Fieldwork II-A (OT-II)	March 4 - May 24, 2024
Clinical Rotation - Block 10 (MS-III/MS-IV)	March 4 - 31, 2024
Practicum II (PT-II)	March 4 - May 10, 2024
Last Day to Add/Drop Classes (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/OT-I/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III/MPH)	March 8, 2024
Didactic Course (OT-II)	March 25 - May 10, 2024
Clinical Rotation - Block 11 (MS-III/MS-IV)	April 1 - April 28, 2024
Rotation APPE Block 6 (Class of 2024)	April 1 - May 10, 2024
Degree Completion Date - DPT (PT-III)	April 26, 2024
Clinical Rotation - Block 12 (MS-IV)	April 29 - May 19, 2024
Clinical Rotation - Block 12 (MS-III)	April 29 - May 26, 2024
Last Day of Classes (PR-I/PRC-I/PR-II/PRC-II)	May 5, 2024
Grades Due (DMD-IV)	May 10, 2024
Last Day of Classes (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/OP-I/OP-II/OP-III)	May 10, 2024
Last Day of Classes (MPH)	May 12, 2024
Quarterly Exams (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/OP-I/OP-II/OP-III)	May 13 - 17, 2024
Quarter Break (PT-II)	May 13 - June 7, 2024
Degree Completion Date MA (PSY-II), MBS (MBS-II), MA (MABS), MS (SLP-II), OTD (OT-III), Pharm.D. (Class of 2024)	May 17, 2024
Last Day of Classes/Clinical Courses (DMD-III/DMD-IV)	May 17, 2024
Grades Due (DMD-IV)	May 17, 2024
Senior Week (OP-IV)	May 20 - 21, 2024
Quarter Break (PS-I/PS-II)	May 20 - June 7, 2024
Quarter Break (OP-III)	May 20 - 31, 2024
Quarter Break (PA-I/OP-II/OT-I/MBS-I/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/DMD-II/DMD-III)	May 20 - 31, 2024
Quarter Break (DMD-I/OP-I)	May 20 - September 6, 2024
Practicum I (PT-I)	May 20 - June 7, 2024
Grades Due (MS-I/MS-II/PS-I/PS-II/PA-I/PT-I/OT-I/OT-II/OT-III/MBS-I/MBS-II/MABS/PSY-I/PSY-II/PSY-III/PSY-IV/PSY-V/SLP-I/SLP-II/DMD-I/DMD-II/DMD-III/DMD-IV/OP-I/OP-II/OP-III)	May 21, 2024
Quarter Break (OT-II)	May 27 - June 7, 2024
Memorial Day Observed *No Classes*	May 27, 2024

Event	Date
Quarter Break (MS-III)	May 28 - June 2, 2024
CPDG Commencement	TBA

Chicago College of Osteopathic Medicine

Mission

The Chicago College of Osteopathic Medicine (CCOM) educates osteopathic physicians to provide compassionate, quality care, promote the practice of osteopathic medicine and lifelong learning, research and service.

The mission will be achieved by meeting the following objectives:

1. Demonstrating compassionate care
 - Provide instruction in ethics and communication skills
2. Demonstrating quality educational outcomes
 - Provide instruction in core clinical competencies
3. Providing osteopathic medical care
 - Provide osteopathic medical care in the MWU Multispecialty Clinic
4. Educating students in principles of lifelong learning
 - Provide instruction in principles of lifelong learning
5. Promoting research and scholarly activity
 - Provide instruction in research and scholarly activity
 - Provide elective opportunities for students to participate in research and scholarly activities
6. Sponsoring service-learning experiences through required CCOM class and club service activities
 - Provide service-learning experiences
7. Providing introduction to MWU GME through class presentations
 - Integrate MWU GME exposure into the osteopathic student experience
8. Providing instructional material and presentations in preparation for residency placement
 - Prepare students for residency placement
9. Providing faculty development programs

Accreditation

The Chicago College of Osteopathic Medicine (CCOM) is accredited by the American Osteopathic Association (AOA)/Commission on Osteopathic College Accreditation (COCA). COCA is recognized as the accrediting agency for colleges of osteopathic medicine by the United States Office of Education and the Council of Postsecondary Accreditation (COPA). CCOM will undergo its next full accreditation visit in 2023. To review accreditation, approval, or licensing documentation, please contact the Office of the Dean at 630/515-6159.

For further information, please contact the American Osteopathic Association (AOA)/Commission on Osteopathic College Accreditation (COCA), 142 E. Ontario St., Chicago, IL 60611, or 800/621-1773 or <http://www.osteopathic.org/accreditation/>

Degree Description

Upon graduation from the Chicago College of Osteopathic Medicine, the Doctor of Osteopathic Medicine (D.O.) degree is granted. The usual length of the course of study is 4 academic years. The curriculum consists of 2 years of primarily didactic instruction followed by 2 years of primarily clinical rotations, including the applicable

didactic material. Upon graduation with the D.O. degree, the graduate is eligible for postdoctoral residency training in all fields of medicine. Completing a program of study at Northwestern University does not guarantee placement in a residency program, future employment, licensure, board certification or credentialing.

The Doctor of Osteopathic Medicine (D.O.) degree offered by Northwestern University / Chicago College of Osteopathic Medicine on the Downers Grove campus is designed to meet the educational requirements to become licensed to practice osteopathic medicine in all 50 states. Graduates should check the licensure requirements for the state, district, or territory in which they intend to pursue employment.

Northwestern University Chicago College of Osteopathic Medicine has not made a determination that its Doctor of Osteopathic Medicine curriculum meets the territorial educational requirements for licensure or certification in the following territories: Puerto Rico and the U.S. Virgin Islands. Students in this program receive a direct notification that Northwestern University has not made a determination if their program meets the requirements in the above listed territories.

Admissions

CCOM considers those students for admission who possess the academic, professional, and personal qualities necessary to become exemplary osteopathic physicians. To select these students, the College uses a rolling admissions process within a competitive admissions framework.

Admission Requirements

Students seeking admission to CCOM must submit the following documented evidence:

1. Completion of the admissions course requirements
 - Grades of C or better (grades of C- are not acceptable)
 - To be competitive, students should have minimum cumulative and science GPAs over 3.00 on a 4.00 scale
 - To receive a supplemental application, students must have minimum cumulative and science GPAs of 2.75 on a 4.00 scale
2. Completion of a bachelor's degree from a regionally accredited college or university prior to matriculation
3. Competitive test scores on the Medical College Admissions Test (MCAT)
 - Average MCAT score for students entering CCOM in 2022 was 510
 - Only MCAT exam scores earned from tests taken no more than 3 years prior to the planned enrollment year are acceptable
 - Candidates can register for MCAT tests through the MCAT Program Office at 202/828-0600 or visit <https://www.aamc.org/register-mcatexam> for information
4. Two letters of recommendation
 - One letter from either a premedical advisory committee, prehealth advisor or basic science professor who taught the applicant
 - It is preferred the second letter be written by a U.S. licensed D.O. or M.D. Letters from osteopathic physicians are strongly recommended. Letters written by family members are not acceptable.

Students seeking admission to CCOM must:

1. Demonstrate understanding of and interest in osteopathic medicine
2. Demonstrate service orientation through community service or extracurricular activities
3. Show motivation for, and commitment to, healthcare as demonstrated by previous work, volunteer work, or other life experiences

4. Possess verbal, non-verbal and written communication skills necessary to interact with patients and colleagues
5. Pass the Midwestern University fingerprint-based background check
6. Commit to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy
7. Meet the Technical Standards of the College

Admissions Course Requirements

Course	# of Semesters/Hours
Biology with lab	8 Semester/12 Quarter hours
General Chemistry with lab	8 Semester/12 Quarter hours
Organic Chemistry with lab	8 Semester/12 Quarter hours
Physics with lab	8 Semester/12 Quarter hours
English Composition	6 Semester/9 Quarter hours

Anatomy, Physiology, and Biochemistry are recommended courses that may contribute to success in medical school.

Competitive Admissions

Within its competitive admissions framework, CCOM uses multiple criteria to select the most qualified candidates from an applicant pool that exceeds the number of seats available. For the class matriculating in Fall 2022, CCOM received more than 8,000 applications for its 200 seats.

Rolling Admissions

CCOM uses a rolling admissions process in which applications are reviewed and interview decisions are made at regular intervals during the admissions cycle. Interviews are conducted and selection decisions for the College are made until the class is filled. Applicants are notified of their selection status within four weeks after their interview date. To be competitive within this process, candidates should apply early in the admissions cycle.

Application Process and Deadlines

The official AACOMAS application deadline is January 1st; however, applicants are strongly encouraged to apply early in the cycle. Due to the large number of applications and the limited number of seats available, applications will be considered on a first-come, first-served basis only until all seats are filled. Typically, 50% of all admissions offers are made by the end of December.

1. AACOMAS Application - January 1st Deadline

To initiate the application process, all applicants must apply online via the centralized application service administered by AACOM at <https://aacomas.liaisoncas.com/>. The AACOMAS application is typically available in May or June. As part of this process, students must submit official MCAT scores (for tests taken no more than 3 years prior to the matriculation date) and official transcripts to AACOMAS only. The Office of Admissions will not accept MCAT scores or transcripts submitted directly to Midwestern University. The deadline for submission of the AACOMAS application is January 1st.

2. CCOM Supplemental Application - March 1st Deadline

Upon receipt of the AACOMAS application from the application service, the Office of Admissions will e-mail supplemental applications to all applicants who have earned minimum cumulative and science GPAs of 2.75. Applicants must complete and submit their supplemental application forms with all required materials, including a nonrefundable/nonwaivable \$50 processing fee, to the Office of Admissions. All supplemental application materials must be received in the Office of Admissions on or before the deadline of March 1st.

3. Letters of Recommendation - March 1st Deadline

Applicants must submit two letters of recommendation. One letter must be written by a prehealth advisory committee, prehealth advisor or basic science professor who taught the applicant. The second letter must be written by a physician, either a U.S. licensed D.O. or M.D. Letters from osteopathic physicians are strongly recommended. The required letters of recommendation must be received in the Office of Admissions on or before the deadline of March 1st. Letters must adhere to the following guidelines:

- A. The Office of Admissions will accept letters of recommendation received from AACOMAS or submitted directly to the Office of Admissions via Interfolio, VirtualEvals or U.S. postal service;
 - B. The full legal name and AACOMAS ID number of the applicant must be on the front page of the recommendation. The applicant provides this information to the evaluators;
 - C. Letters must be prepared on letterhead stationery, which includes the complete contact information for evaluators;
 - D. The academic degrees of evaluators must be listed (e.g., Ph.D., D.O., M.D.);
 - E. Applicants who have previously applied to CCOM must submit new letters of recommendation;
 - F. Letters from family members will NOT be accepted.
4. Completed Applications - March 1st Deadline All application materials, including the AACOMAS application, MCAT scores (as reported to AACOMAS), two required letters of recommendation, and all supplemental application materials with the application fee must be received in the Office of Admissions on or before March 1st. Only completed applications received by the Office of Admissions on or before the deadline date will be reviewed for potential enrollment.
5. Application Reviews and Interview Decisions CCOM uses a rolling admissions process to review completed applications and to make interview decisions. Applications will not be reviewed until all required application materials have been received by the Office of Admissions, including the AACOMAS application, official MCAT scores (as reported to AACOMAS), supplemental application materials, processing fee, and both required letters of recommendation. Students must complete their files as soon as possible to remain competitive in this process and to ensure full consideration of their applications.

Please Note: Applicants are responsible for tracking the receipt of their application materials and verifying the status of their required application materials on the University website. Instructions for accessing application information on the University's website will be sent by the Office of Admissions. Applicants should keep the Office of Admissions informed of any changes to the mailing address and e-mail address. All requests for application withdrawals must be in writing. Applicants are expected to act professionally in their interactions with AACOMAS and with CCOM. Candidates are expected to follow AACOMAS applicant protocol at all times.

Interview and Selection Process

Applicants must meet all the admissions requirements listed previously to be considered for interviews. Once the Office of Admissions receives all the required application materials, applicant files are reviewed to determine whether applicants merit interview invitations based on established criteria of the Admissions Committee.

Applicants who are invited to interview will be contacted by the Office of Admissions and receive instructions for scheduling their interviews via the University's web-based scheduling system. Additional applicants may be placed on an interview

"Waiting List" pending possible interview openings toward the end of the interview cycle. The on-campus interview process typically begins in September and ends in April.

On the interview day applicants join several other interviewees to meet with members of a two or three-person interview panel, which is selected from a volunteer group of basic scientists, current students, administrators, and clinicians. Panel members assess applicants for their academic and personal preparedness for medical school. They rate applicants on a standardized evaluation form relative to each variable. At the conclusion of the interviews, the panel members forward their applicant evaluations to the Admissions Committee. The Committee

may recommend to accept, to deny, or to place the applicant on either the hold or alternate list. This recommendation is then forwarded to the Dean for final approval. The Office of Admissions, notifies students of their status within four weeks of the interview.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance from one to ten feet, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses. The candidate must be able to accurately auscultate lung/breath, heart and bowel sounds to complete the curricular requirement to individually complete physical examination of a patient/client.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive verbal and nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem-solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process. The candidate must agree to participate in touching/palpating on the skin and being touched/palpated on the skin by individuals regardless of gender in all academic settings, including osteopathic manipulative techniques. These activities will take place in large and small group settings as directed in the College's curricular requirements.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student should apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Promotion Committee.

Commitments Made Prior to Matriculation at CCOM Applicants who have made commitments prior to matriculation at CCOM must be aware there may be curricular priorities not compatible with their tentative schedules. Students who wish to fulfill prior commitments must request time off from each Course Director and Department Chair during the first week of the academic year. MWU does not guarantee time off for prior commitments will be approved. Enrollment deferments are not offered for pre-matriculation commitments, nor for enrollment in other degree or certificate programs.

Dual Admission Program and Articulation Agreements with other Institutions

A dual admission program is currently in effect with the Illinois Institute of Technology. Details of this program are available through the Office of Admissions.

Reapplication Process

After receiving either denial or end-of-cycle letters, applicants may reapply for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of an admissions counselor.

To initiate the reapplication process, applicants must submit their applications to AACOMAS. Applications are then processed according to standard application procedures.

CCOM may elect to accept transfer students from other U.S. osteopathic medical schools as long as these students remain in good academic and professional standing and provide acceptable reasons for seeking a transfer. The American Osteopathic Association/Commission on Osteopathic College Accreditation (AOA/COCA) standards require that the last two years of instruction must be completed within the college of osteopathic medicine granting the D.O. degree.

Currently enrolled students are not granted advanced standing for individual courses completed at another institution. Full credit is granted for course work completed by students transferring from another institution for the purpose of completing their course of study at CCOM.

Students requesting transfers must meet the College's general requirements for admission and follow transfer procedures:

1. All inquiries for transfer to CCOM must be submitted to the Office of Admissions.
2. The Office of Admissions will confirm the availability of rotation sites through the Office of the Dean.
3. Applications will be provided if the Dean designates that there are available transfer positions.
4. Students must return their completed applications to the Office of Admissions and must include:
 - A. Transcripts from the COM (must have no "F's" or repeated courses);
 - B. Class rank (must be in top 50%);
 - C. Dean's letter verifying "Good Academic Standing" and specifying that the student is eligible for readmission;
 - D. A letter of reference from the Dean of Students indicating no professionalism concerns.
5. The CCOM Dean may require passage of COMLEX-USA Level 1 prior to transfer.
6. Completed applications are forwarded to the Office of the Dean.
7. The Dean reviews applications and the Dean or the Dean's designee conducts interviews with applicants.
8. Recommendations are forwarded to the Dean of CCOM for final approval.
9. The Dean notifies the applicants of the final transfer decision through the Office of Admissions.

Graduation Requirements

The degree of [Doctor of Osteopathic Medicine](#) (D.O) is conferred upon candidates of good professional standing who have successfully completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements.

Students must pass all didactic course work and rotation courses with a grade of "C" or better in order to graduate. Students must pass COMLEX-USA Level 1 and the COMLEX-USA Level 2 examinations of the National Board of Osteopathic Medical Examiners. A minimum of 45 months must elapse between the date of matriculation and graduation.

Maximum Length to Degree Completion

Except in the case of a student earning an additional degree while pursuing their degree in osteopathic medicine (D.O.), all students must complete the program leading to their D.O. degree within six years following the date of initial matriculation, as specified by the American Osteopathic Association (AOA) Commission on Osteopathic College Accreditation (COCA).

Academic policies set forth within this catalog establish the timeline for coursework and licensure examination completion in order to meet all graduation requirements within the six-year timeframe. In the event that a student requires a leave of absence, the total length of time taken by the student to complete their degree is considered prior to the leave being granted, and the student is advised accordingly. As detailed in the Leave of Absence subsection of the Grades Appeals Policy section of the catalog, typically a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. The duration of all leaves is monitored by a representative of the Office of the Dean to prevent a student from exceeding the six-year timeframe.

Osteopathic Medicine Curriculum

Instructional Program

As scientists and practitioners of the healing arts, osteopathic physicians subscribe to a philosophy that regards the body as an integrated whole with structure and function working interdependently. As an extension of this philosophy, osteopathic physicians treat their patients as unique persons with biological, psychological, and sociological needs, an approach that underscores the osteopathic commitment to patient-oriented versus disease-oriented healthcare. In recognition of this approach, CCOM proactively modifies its curriculum to meet the needs of the practice of osteopathic medicine in the 21st century. To that end, the curriculum is being progressively enhanced with increasing alignment and integration of basic science and clinical sciences material. CCOM courses maintain rigorous standards by introducing the course material with interactive presentation methods in the manner that osteopathic physicians approach the patient in the clinical setting.

Total Curricular Credit Hours: 245.5 Minimum

Please Note: CCOM reserves the right to alter its curriculum as appropriate for the essential professional preparation of its students.

* Electives in first and second years are optional. Electives are not necessarily offered during every pre-clinical quarter. There are 24 weeks of mandatory electives in the third and fourth years.

First Year (Fall, Winter and Spring Quarters) 57.5

OMS I Curriculum Fall Quarter

Course Code	Title	Credits
ANATD 1511	Histology	3.0
ANATD 1551	Gross Anatomy & Embryology I	4.5
BIOCD 1501	Biochemistry I	5.0
CLIND 1502	Foundations of Osteopathic Clinical Practice	1.0
CLIND 1552	Patient Symptom Presentations I	3.0
CLIND 1562	Physical Exam Skills I	1.0
CORED 1599	Interprofessional Education I	1.0
OMEDD 1570	Principles of Osteopathic Manipulative Medicine I	2.0

OMS I Curriculum Winter Quarter

Course Code	Title	Credits
ANATD 1552	Gross Anatomy & Embryology II	5.0
BIOCD 1502	Biochemistry II	4.5
CLIND 1430	Research Design, Methods and Approaches	1.0
CLIND 1553	Patient Symptom Presentations II	1.5
CLIND 1563	Physical Exam Skills II	0.5
CORED 1500A	Interprofessional Healthcare Communication	1.0
OMEDD 1571	Principles of Osteopathic Manipulative Medicine II	2.0
PHYS 1501	Physiology I	4.0

OMS I Curriculum Spring Quarter

Course Code	Title	Credits
ANATD 1521	Neuroscience	6.0
CLIND 1503	Behavioral Health Assessment	2.0
CLIND 1554	Patient Symptom Presentations III	2.0
CLIND 1564	Physical Exam Skills III	0.5
OMEDD 1572	Principles of Osteopathic Manipulative Medicine III	1.5
PHYS 1502	Physiology II	5.5

Second Year (Fall, Winter and Spring Quarters) 64.5

OMS II Curriculum Fall Quarter

Course Code	Title	Credits
CLIND 1652	Clinical Symptom Integration I	7.0
CLIND 1662	Simulated Patient Care I	2.0
MICRD 1652	Infectious Disease, Etiologic Agents and the Immune Response I	8.0
OMEDD 1670	Clinical Osteopathic Manipulative Medicine	2.0
PATHD 1601	Pathology I	5.0
PHARD 1670	Pharmacology I	5.0

OMS II Curriculum Winter Quarter

Course Code	Title	Credits
CLIND 1653	Clinical Symptom Integration II	5.0
CLIND 1663	Simulated Patient Care II	1.0
MICRD 1653	Infectious Disease, Etiologic Agents and the Immune Response II	5.0
OMEDD 1671	Clinical Osteopathic Medicine II	2.0
PATHD 1602	Pathology II	6.0
PHARD 1671	Pharmacology II	3.0

OMS II Curriculum Spring Quarter

Course Code	Title	Credits
CLIND 1654	Clinical Symptom Integration III	3.5
CLIND 1664	Simulated Patient Care III	1.0
CLIND 1603	Mental Illness and Treatments	1.5
OMEDD 1672	Clinical Osteopathic Manipulative Medicine III	1.0
PATHD 1603	Pathology III	4.5
PHARD 1672	Pharmacology III	2.0

Third Year (Summer - Spring Quarters) Clinical Block 68-74

Course Code	Title	Credits
CLIND 1702	Clinical Skills Assessment/EPA I	1.0
CLIND 1703	Clinical Skills Assessment/EPA II	1.0
CLROD 1700	Elective Clerkship I	6.0
CLROD 1701	Selective Rotation	6.0
FMEDD 1702	Family Medicine Rotation	12.0
IMEDD 1702	Internal Medicine Rotation	12.0
OBGYD 1702	Obstetrics and Gynecology Rotation	6.0
PEDID 1702	Pediatrics Rotation	6.0
PSYCD 1702	Psychiatry Rotation	6.0
SURGD 1702	Surgery Rotations	12.0

Fourth Year (Summer - Spring Quarters) Clinical Block 56-68

Fourth Year Rotations (Option 1)

Course Code	Title	Credits
CLIND 1804	Clinical Skills Assessment/EPA III	1.0
CLIND 1805	Clinical Skills Assessment/EPA IV	1.0
CLROD 1800	Elective Clinical Clerkships	30.0-36
EMEDD 1805	Emergency Medicine Rotation	6.0
FMEDD 1802	Family Medicine Rotation	6.0
IMEDD 1802A	Internal Medicine Rotations	6.0
OMEDD 1801	Osteopathic Manipulative Medicine Rotation	6.0

Fourth Year Rotations (Option 2)

Course Code	Title	Credits
CLIND 1804	Clinical Skills Assessment/EPA III	1.0
CLIND 1805	Clinical Skills Assessment/EPA IV	1.0
CLROD 1800	Elective Clinical Clerkships	30.0-36
EMEDD 1805	Emergency Medicine Rotation	6.0
IMEDD 1802A	Internal Medicine Rotations	6.0
OMEDD 1801	Osteopathic Manipulative Medicine Rotation	6.0
SURGD 1802	Surgery Rotations	6.0

Fourth Year Rotations (Option 3)

Course Code	Title	Credits
CLIND 1804	Clinical Skills Assessment/EPA III	1.0
CLIND 1805	Clinical Skills Assessment/EPA IV	1.0
CLROD 1800	Elective Clinical Clerkships	30.0-36
EMEDD 1805	Emergency Medicine Rotation	6.0
FMEDD 1802	Family Medicine Rotation	6.0
OMEDD 1801	Osteopathic Manipulative Medicine Rotation	6.0
SURGD 1802	Surgery Rotations	6.0

Fourth Year Rotations (Option 4)

Course Code	Title	Credits
CLIND 1804	Clinical Skills Assessment/EPA III	1.0
CLIND 1805	Clinical Skills Assessment/EPA IV	1.0
CLROD 1800	Elective Clinical Clerkships	30.0-36
EMEDD 1805	Emergency Medicine Rotation	6.0
IMEDD 1802A	Internal Medicine Rotations	6.0
IMEDD 1802B	Internal Medicine Rotations	6.0
OMEDD 1801	Osteopathic Manipulative Medicine Rotation	6.0
	Total Credits	246

Preclinical Elective Courses

Preclinical electives are courses in a variety of areas related to medicine which are designed to broaden understanding of important topics. Preclinical electives utilize pass/fail grading. Failures in elective courses carry the same weighting as failures in core curriculum courses such as anatomy, biochemistry, etc. Preclinical elective courses typically carry a value of 1 to 2 credits and are optional. The specific list of electives offered will vary and may include:

- CLIND 1407 Career Development
- CLIND 1450 Clinical Foundations of Ultrasound
- CLIND 1480 Leadership for Physicians
- CLIND 1499 Student Research Elective
- PHYSD 1470/1471 Physiology Teaching Elective

Clinical Rotations

Core clinical rotations are required and include assessment by preceptor evaluations, post-rotation exams, clinical experience logs, and other assignments determined by each clinical department. Core rotations include family medicine, internal medicine, surgery, pediatrics, psychiatry, osteopathic manipulative medicine, obstetrics/gynecology, and emergency medicine. Additionally, students are required to participate in a selective rotation.

This is an opportunity to participate in a learning experience that is not part of the core OMS III curriculum.

Students must also complete elective rotations in recognized fields of medicine. Examples of elective rotations include anesthesiology, cardiology, cardiovascular/thoracic surgery, dermatology, endocrinology/metabolism, family medicine, gastroenterology, hematology/oncology, infectious disease, nephrology, neurology, neurosurgery, nuclear medicine, obstetrics/gynecology, ophthalmology, orthopedic surgery, otorhinolaryngology, pathology, radiology, rheumatology/immunology, urology, and research.

Students may pursue elective clinical rotations at preapproved institutions where an additional agreement to send CCOM students has been established. Elective rotations may also be taken in any of the required core rotation disciplines. Other elective choices are subject to review and approval by the Associate Dean of Clinical Education. Elective options are also subject to the limitations as noted in the Clinical Rotations Policy Manual.

Department Descriptions

Department of Anatomy

Through a comprehensive course of study in Gross Anatomy, Histology, and Neuroscience, the Department of Anatomy provides instruction in the morphology of the human body. The study of anatomy is particularly germane to osteopathic medicine because the relationship between structure and function is a fundamental tenet of the osteopathic philosophy. Direct observation of human structure is the essence of the anatomy courses. In Gross Anatomy, all students participate in supervised dissection of anatomical donors supplemented by the study of anatomical models, bones, and medical images. In Histology, students apply the principles presented in lecture to the microscopic identification of normal human cells, tissues, and organs while Neuroscience is a clinically oriented course that integrates neurobiology, neuroanatomy, and physiology with clinical case presentations on neurological disorders and diseases.

The Department of Anatomy is multidisciplinary in nature and offers teaching and research elective opportunities in diverse scientific fields, including anatomy, anthropology, paleontology, physiology, neuroscience, and cell biology. The teaching elective allows CCOM students to work with faculty in small-group, donor-based anatomy education experiences. The research elective gives students the opportunity to participate in ongoing research projects. Faculty research interests include human and non-human primate anatomical variation; the effects of bio-environmental factors on cranial and post-cranial development and aging in modern and past populations; vertebrate paleontology and evolution; craniofacial developmental genetics; plasticity of the peripheral nervous system during development and adulthood; inner ear development and regeneration; myelination and demyelinating diseases; macronutrient metabolism; tissue repair; and inflammatory response.

Department of Behavioral Sciences

It was Hippocrates, the father of medicine, who was quoted as saying, "One must know of the person who has the disease as much as one must know of the disease the person has." Dr. Andrew Taylor Still, in the Hippocratic tradition, emphasized and expanded the integration of structure and function. The Behavioral Sciences curriculum provides the coursework and clinical rotation that builds the foundation for the practice of holistic medicine. An emphasis is placed upon the importance of treating each patient in the context of that individual's unique biopsychosocial matrix.

Department of Biochemistry and Molecular Genetics

First-year medical students complete a required, two-quarter sequence in medical biochemistry, the educational goals of which are to understand the major biochemical concepts of cell, tissue, and organ function in health and disease. These goals are achieved through lectures, small group case studies, and readings in the biomedical literature. Faculty members accept students into a research elective program.

Department of Clinical Integration

Clinical Integration is a department structured to provide oversight for the clinical aspects of the years one and two curriculum. Courses are designed to acquaint the osteopathic medical student with the clinical knowledge required for the practice of medicine, enabling them to integrate the knowledge gained in the basic science courses in order to formulate diagnostic decisions. Faculty in this department are physicians, clinicians and education specialists.

Department of Emergency Medicine

Medical emergencies can happen anywhere and at any time. It is imperative that an osteopathic physician be prepared to provide emergency care not only in an emergency department or a physician's office, but also in social settings where little or no emergency equipment or supplies are readily available.

The members of the Department of Emergency Medicine are all specialists in the field of emergency medicine. They are engaged in clinical practice of emergency medicine as well as in clinical research in the field.

Department of Family Medicine

Family Medicine

Family medicine physicians personify osteopathic medicine. Departmental members endeavor to instill respect for holistic, osteopathic medicine, particularly in primary care. The basics of the art of medicine are included in the family medicine curricula. Medical students are expected to master the continuum of the biopsychosocial aspects of medicine, and then apply these concepts in clinical settings. These basic experiences provide the background necessary for the selection of a medical specialty.

Members of the Department of Family Medicine serve as role models and are actively engaged in teaching and clinical research. Departmental members help medical students understand the principles of osteopathic medicine. Further, they foster the development of the skills necessary to apply the osteopathic concepts in all aspects of patient care.

Section of Pediatrics

Pediatric patients present opportunities, challenges, and rewards that are unique in medicine. The members of the section of Pediatrics are all specialists in the field. They are engaged in clinical practice of Pediatrics as well as in clinical research in the field.

Department of Internal Medicine

The core of an osteopathic physician's knowledge and treatment of disease entities is found in internal medicine. The basics learned here pervade primary care, surgery, and the subspecialties of medicine. At CCOM, medicine is taught on the floors of affiliate hospitals. Because much of the teaching in medicine is one-on-one or with small groups, the members of the department are able to provide individualized instruction for the medical students. This enables the faculty to ascertain whether or not the medical students can incorporate the material mastered

in the basic science courses into their practice of clinical medicine. Medical students can gain significant ambulatory experience in general internal medicine and subspecialty clinics while rotating through their required and elective clerkships in internal medicine.

The members of the Department of Internal Medicine, all of whom are highly trained general internists or subspecialists, are engaged in clinical as well as bench research. Medical students may assist in these projects by monitoring patient progress and helping to collect the data for these studies. Consistent with our osteopathic principles, students will learn about the whole patient approach to medical care. Students will also understand how to partner with the patient care team to assist with the promotion of health.

Department of Microbiology and Immunology

More than one-third of the cases seen by family practice physicians involve infectious disease or immunologically related disorders. Medical students complete a required two-quarter sequence in the fundamental principles of microbiology, immunology and medical microbiology. The goals of this sequence are to provide students with the fundamental information necessary for the diagnosis, rational management and control of infectious disease, as well as immunologic disorders. These goals are achieved through problem-based interactive clinical case studies, computer-based case modules and lectures. The material presented in lecture is reinforced in the mandatory laboratory sessions that help students develop the skills they will find necessary to perform the most commonly used microbiologic techniques. The laboratory also allows students to become familiar with the general operations of a clinical microbiology laboratory.

In addition to the required courses, the Microbiology faculty also accept students into a research elective program. Areas of ongoing research include microbial communication, viral infection and entry, viral impact on immune system function, immune mechanisms of protection and pathology in microbial infections, and autoimmunity.

Department of Obstetrics and Gynecology

Obstetrics and Gynecology remains an essential part of the practice of all primary care osteopathic physicians. The basics of good prenatal care, office gynecology and the indications and options for appropriate surgical care of the female patient challenge physicians on a daily basis. The Department of Obstetrics and Gynecology provides the student with a dynamic educational experience, combining traditional fundamentals with fresh, innovative thinking and technology. Our primary goal is to train students to solve clinical dilemmas by applying clear, concise thinking to a solid foundation of knowledge in women's health. The members of the Department of Obstetrics and Gynecology are all specialists in the field. They are engaged in clinical practice of OB/GYN as well as in clinical research in the field.

Department of Osteopathic Manipulative Medicine

The Department of Osteopathic Manipulative Medicine is designed to serve as a focal point of osteopathic uniqueness within the Downers Grove Campus, Midwestern University. In addition to the traditional role of teaching the osteopathic courses to students, the Department of Osteopathic Manipulative Medicine is a resource to provide leadership to facilitate the demonstration of this osteopathic approach. A continuum of osteopathic training is essential, and the Department works to facilitate this continuity in the training process. The Department recognizes the necessity for a base of scientific research to support osteopathic theory and practice, as well as the necessity of clinical studies to document the efficacy and cost effectiveness of osteopathic care.

Department of Pathology

The Department of Pathology introduces students to the study of human disease. The department faculty are all Anatomic and Clinical pathologists, some of whom are actively engaged in clinical practice.

Through a lecture and reading based format, the department teaches students to focus on the human body as a group of integrated systems, and provides them an understanding of the pathophysiologic mechanisms that underlie disease manifestations. Students are familiarized with the vast spectra of human diseases using an organ system approach. They are taught to understand the relationships between basic scientific principles and the practice of clinical medicine, while integrating these principles into the study of human pathology. This approach provides students a complete overview of human illnesses as they affect organ systems and the patient as a whole. Through faculty guidance, students explore pathophysiologic, anatomic, histologic, cellular, and genetic alterations unique to these conditions. Skills are fostered that allow students to incorporate and interpret laboratory data in diagnosis and treatment. The department is strongly aligned with osteopathic principles and perspectives, which are incorporated into the curricula of its courses. Because the faculty are experienced anatomic and clinical pathologists, they are able to draw upon their vast experiences, sharing them as part of the curricula. The department recognizes the value of research, and some of the faculty are able to provide students with research opportunities. Additionally, faculty engaged in clinical practice may provide students opportunities for shadowing and practical experience.

Department of Pharmacology

The instructional program in Pharmacology focuses on the actions of clinically-important drugs and toxicants in humans. The primary goal of the program is to provide the osteopathic medical student with a firm understanding of the general pharmacology of the major classes of drugs and toxicants, so that the student can begin his/her clinical training at the highest possible level of preparedness and pursue a career of life-long learning as an osteopathic physician. The pharmacology courses will be presented over the Fall, Winter and Spring quarters of the academic year. The various classes of drugs will be considered on an organ system and disease-group basis supplemented with the incorporation of symptoms and clinical cases. In addition, students will receive instruction on a variety of related topics including general principles of drug action, pharmacokinetics, therapeutics, toxicology and drugs of abuse. Throughout the course sequence, the faculty will consider the various drugs and topics from a holistic, osteopathic perspective.

Department of Physiology

Physiology is the branch of the life sciences concerned with the function of living systems. Health is customarily defined in physiologic terms: disease is perceived as a deviation from the normal physiologic states of the body. Disease states and the associated signs and symptoms are understood through a refined appreciation of the diverse regulatory processes that maintain the normal, functional status of the human body.

The Physiology Department offers courses that present the physiological principles and regulatory processes that underlie the normal function of the human body. These core principles provide a foundation upon which to develop an understanding of the physiologic mechanisms engaged in response to homeostatic imbalance and of pathophysiologic alterations that occur in disease. In addition to conventional didactic instruction, osteopathic medical students participate in small group clinical case discussions that are used to promote critical thinking, problem solving and application of physiologic concepts and principles to clinically relevant problems. Medical students interested in research are encouraged to participate in ongoing research projects as a part of CCOM's Kenneth A. Suarez Research Fellowship Program, research electives and through work-study opportunities. Current research interests of the faculty include a variety of areas associated with intracellular signaling; cardiorespiratory reflexes; endocrine, intestinal stem cell, and exercise physiology; neuromuscular disorders; and mechanisms underlying osteopathic manipulative medicine. Additional teaching electives introduce medical students to the basic techniques utilized in facilitating small groups in an academic setting.

Department of Surgery

All osteopathic physicians must be trained to understand surgical diseases as presented in a clinical setting. They must master pre- and postoperative assessment of patients so they can function in any medical setting as an important and integral part of the patient care team.

The members of the surgery department are committed to CCOM's precepts of teaching, healing, and serving. The academic mission of the department is to provide each student with both didactic and clinical training in the surgical arts. The members of the department provide comprehensive surgical care for the patients throughout CCOM's affiliated clinical facilities. The members of the department serve as mentors for all medical students in addition to identifying and supporting those who have the ability and interest to become osteopathic surgeons.

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the College. In the event these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section in the front of the catalog for additional policies that apply to all students at Northwestern University.

Academic Review & Progression

The Promotions Committee is charged with maintaining standards of excellence in academic courses in the preclinical and clinical years. The committee is comprised of medical school faculty who review the academic performance of students and assess students for promotion to the next academic year. Academic Surveillance, Warning & Probation Good Academic Standing is achieved by maintaining "C" cumulative average in all courses/rotations at all times. A student on academic warning or academic probation is not considered to be in good academic standing. To return to good academic standing, a student must pass the failed courses/rotations and incur no further failures.

Advanced Standing for currently enrolled students is not granted for individual courses completed at another institution. Full credit is granted for course work completed by students transferring from another COCA accredited institution for the purpose of completing their course of study at CCOM.

Academic Warning is issued by the Office of the Dean or the Promotions Committee when a student has failed a course/rotation and may occur at any time during the academic year when a student is currently failing a course/rotation. Academic warning represents notice that continued substandard academic performance may compromise the student's ability to pass one or more courses. Academic warning is not noted on the transcript. A student who is currently failing or has failed a course/rotation is required to meet with the Course Director or course faculty to formulate a plan of action. A student who is currently failing more than one course or rotation is required to meet with a representative from the Office of the Dean to discuss their academic challenges and receive direction, feedback and encouragement on their academic plan in order to achieve academic success. Students on academic warning are discouraged from holding organizational offices. Academic warning does not require the student to meet with the Promotions Committee.

Academic Probation is defined as failure of 2 or more courses/rotations or a failure of any level of COMLEX-USA. Academic probation is issued by the Promotions Committee when a student meets this criterion, which represents notice that continued substandard academic performance may result in dismissal. Students meeting the criteria for academic probation are required to appear before the CCOM Promotions Committee. Academic

probation is noted in a student's permanent academic file and will be included in their Medical Student Performance Evaluation (MSPE). A student on academic probation is required to meet with a representative from the Office of the Dean. When a student passes the failed courses and returns to good academic standing, this is also noted in the student's file. Academic probation is not noted on the transcript. Students on academic probation are ineligible to hold student organization offices, or to participate in international rotations.

Appeal Process

Following notification of a decision by the Promotions Committee, a student may appeal the decision in writing within three business days to the Dean. The Dean may grant an appeal only if a student is able to demonstrate one of the following:

1. Bias of one or more Promotions Committee members.
2. Material information not available to the student or Promotions Committee at the time of its initial decision.
3. Procedural error by the Promotions Committee.

During the appeal process, the student must continue to attend classes. Failure of the student to meet with the Student Promotions Committee does not constitute a reason for appeal.

Attending Off-Campus Meetings, Conferences or Events

Students interested in attending osteopathic conferences, lobby days, specialty-focused meetings or any medically or educationally related presentation offered while classes/rotations are in session must submit a written request for an excused absence a minimum of 30 days prior to the event date.

Students must be in good academic standing. OMSI and OMSII students must receive written approval from a representative of the Office of the Dean to attend the event. OMSIII and OMSIV students should follow the procedure for obtaining an excused absence from rotations as described in the Clinical Rotations Manual. Students are advised to wait until approval has been granted prior to making travel arrangements. Any costs incurred by a student who is denied approval to attend an off-campus event are the sole responsibility of the student.

Clinical Rotations Attendance Policy

Please reference the [Clinical Rotations Manual](#) for details.

COMLEX-USA Exam Policy

Students must pass COMLEX-USA Level 1 and Level 2-Cognitive Evaluation examinations in order to graduate.

COMLEX-USA Pass Rate and Average Exam Scores

Historical first-time pass rates and average exam scores by CCOM students and graduates for COMLEX-USA Levels 1, 2-CE, and 3 can be found [on the CCOM webpage](#).

COMLEX-USA Eligibility

The CCOM Dean must certify a student is in good academic and professional standing for a student to register for and take COMLEX-USA Levels 1 and 2CE.

Students must successfully complete all OMS II course requirements prior to taking COMLEX-USA Level 1. The initial attempt to pass the COMLEX-USA Level I examination must occur within 90 days after the completion of all

OMS II course requirements. Students unable to fulfill this requirement may be placed on Leave of Absence until they come into compliance. Students on Leave of Absence may not participate in clinical rotations which may result in a delayed graduation date.

Students may not proceed to the OMS IV year until they have passed COMLEX-USA Level 1 and completed OMS III course requirements.

Students must successfully complete all OMS III course requirements and pass COMLEX-USA Level 1 prior to taking COMLEX-USA Level 2 CE.

The initial attempt to pass the COMLEX-USA Level 2 CE examination must occur within 90 days after completion of all OMS III course requirements. Students unable to fulfill this requirement may be placed on Leave of Absence until they come into compliance. Students on Leave of Absence may not participate in clinical rotations which may result in a delayed graduation date.

Students may not graduate until they have passed COMLEX-USA Level 1, COMLEX-USA Level 2CE and completed all MWU/CCOM degree requirements.

The United States Medical Licensing Examination (USMLE) is not a substitute for any component of the COMLEX-USA examination and does not fulfill a graduation requirement.

Per the National Board of Osteopathic Medical Examiners (NBOME) requirements, the CCOM Dean may not certify graduates to register for and take the COMLEX-USA Level 3 except under limited circumstances.

Consequences of COMLEX Failure

Any student who fails the COMLEX-USA Level 1 or COMLEX Level 2-CE examinations on the first attempt will be permitted to complete the clinical rotation in which the student is participating at the time of failure notification. The student will appear before the Promotions Committee for review. The usual course of action recommended by the Promotions Committee includes a program of study (CLIND 1710 Directed Study or CLIND 1810 Directed Study) to prepare for the second attempt of the exam as directed by the CCOM Dean's designee.

The student will be required to sit for the second attempt at the exam no later than 10 days after completing Directed Study. The student will return to clinical rotations after completing Directed Study.

Failure to comply with taking the exam no later than 10 days after completing Directed Study may result in the student being placed on Leave of Absence. Students on Leave of Absence may not participate in clinical rotations and may have a delayed graduation date.

The student will be placed on academic probation until the passing COMLEX-USA Level 1 score or passing COMLEX-USA Level 2-CE score is received.

If the student fails COMLEX-USA Level 1 or COMLEX-USA Level 2-CE on the second attempt, the student will be reviewed by the Promotions Committee. The usual course of action recommended by the Promotions Committee includes a program of study (CLIND 1710A Directed Study or CLIND 1810A Directed Study) to prepare for the third attempt of the exam as Directed by the CCOM Dean's designee. The student will be placed on academic probation until the passing score for COMLEX-USA Level 1 or COMLEX-USA Level 2-CE is received.

The student will be required to sit for the third attempt at the exam no later than 10 days after completing Directed Study. The student will be placed on Leave of Absence until the score from the third attempt of the exam is received. Students on Leave of Absence cannot participate in clinical rotations and may have a delayed graduation date.

If the student passes the exam on the third attempt, the student will resume clinical rotations in the next scheduled rotation block

If the student fails the exam on the third attempt, the student will be reviewed by the Promotions Committee. The usual course of action recommended by the Promotions Committee is dismissal from MWU/CCOM.

Promotions Committee Guidelines for COMLEX-USA Failures*

Exam	Usual Action*	Academic Status	Repeat Exam Timing	Action Following Retake*
All Passed	Continue in program	Good standing	N/A	N/A
One COMLEX-USA failure (any of COMLEX-USA Level 1 or COMLEX-USA Level 2-CE examinations)	Retake failed COMLEX-USA component after study and remediation plan is completed	Academic probation until passed	Retake period will be recommended by the Promotions Committee and determined by the Office of the Dean. The retake period shall not exceed four months	Pass: Continue in program Fail: See next row
Two COMLEX-USA failures (same component or any combination of COMLEX-USA Level 1 or COMLEX-USA Level 2-CE examinations)	Retake failed COMLEX-USA component after study and remediation plan is completed	Academic probation until passed	Retake period will be recommended by the Promotions Committee and determined by the Office of the Dean. The retake period shall not exceed four months	Pass: Continue in program Fail: See three COMLEX-USA Failures
Three COMLEX-USA failures (same component or any combination of COMLEX-USA Level 1 or COMLEX-USA Level 2-CE examinations)	Recommended dismissal			

*Action may be modified by the Promotions Committee for reasons of additional considerations.

Course Withdrawal

Please refer to the Midwestern University section of the catalog under Academic Policies, Withdrawal.

Criminal Background Checks

CCOM conducts prematriculation criminal background checks by fingerprinting as required by Illinois state law. Affiliation agreements may require additional fingerprinting or background checks for approval of students to participate in clinical rotations.

Disciplinary Warning/Probation

Disciplinary warning/probation occurs for student acts of professional misconduct as defined in Appendices II and IV of the Student Handbook. Disciplinary probation is not noted on the transcript but is kept in the student's permanent academic file. Disciplinary probation information may be shared with clinical sites affiliated with Midwestern University educational programs and documented in the Medical Student Performance Evaluation (MSPE).

Dismissal

Matriculation in medical school is a privilege, not a right. Therefore, a student may be dismissed for any of the following reasons:

- Failure to exhibit the personal and professional qualifications that are prerequisites for the practice of medicine such as acts of dishonesty, including but not limited to cheating on exams, falsifying patient records/logs and plagiarizing;
1. Violation of MWU and CCOM rules and regulations stipulated as grounds for dismissal;
 2. Failure to achieve minimum academic standards in courses, rotations and with COMLEX-USA examinations;
 3. Falsification of admissions records;
 4. Failure to meet and maintain technical standards;
 5. Irregular behavior during COMLEX-USA testing;
 6. Conviction of a felony or other criminal offense
 7. Failure to report a criminal arrest

Students who fail three or more courses/rotations (in any combination) are recommended for dismissal. Students who accumulate three failures in any combination of the COMLEX-USA Level 1 and Level 2-CE examinations are recommended for dismissal. The Promotions Committee reserves the right to change its usual actions for reasons requiring additional consideration. All decisions of the Promotions Committee may be appealed to the CCOM Dean in accordance with the policies found elsewhere in this catalog.

Readmission After Dismissal for Poor Academic Performance

Students who withdraw when facing dismissal are not eligible for readmission. Students who have been dismissed are not eligible for readmission.

Extended Study Program (ESP)

Academic. A student may be placed in the Extended Study Program for academic reasons after approval of the Promotions Committee or the CCOM Dean's Office. Once placed in ESP, a student is required to retake failed courses during the regular academic year and is not eligible for summer courses either at CCOM or at any other medical school. If a student is placed in ESP, such action does not modify or limit the Promotions Committee's options to recommend academic probation or dismissal. The Promotions Committee individually reviews ESP students who fail academic courses and applies the Promotions Committee Guidelines as described. Thus, a student may be dismissed for academic reasons while in ESP. Students will be assessed tuition for any additional years of instruction while enrolled. Placement in the Extended Study Program will change the student's expected date of graduation.

Non-academic. Students have the option of requesting to voluntarily enter the ESP program to allow them additional time to address significant personal issues. A program of study is created that permits students to complete the first two years of the curriculum in three years. Students must petition the Dean or designee to voluntarily become an ESP student for personal reasons no later than completion of 50% duration of a quarter. Requests received after this date are reviewed by the Dean or designee and granted only for reasons of substantiated hardship or medical emergency. Students who voluntarily enter ESP for non-academic reasons will not be placed on Academic Probation if they remain in good academic standing in all courses. Students who voluntarily enter ESP for non-academic reasons will be assessed tuition while enrolled for any additional years of instruction. Students will be assessed tuition for any additional years of instruction while enrolled. Placement in the Extended Study Program will change the student's expected date of graduation.

Grade Point Average

The grade point average is a weighted average computed using the number of credits assigned to each course and the quality points corresponding to the letter grade earned in each course. It is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course are determined by multiplying the quality points earned per credit (corresponding

to the letter grade) by the number of credits assigned to the course. The student's cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated at the completion of each academic year and it does not include any grades or credits for courses audited or courses with a grade of withdrawal "W" or withdrawal failing "WF" or pass "P" or failed "F" that were repeated.

Grade for Retaken Course

Remediation of failed courses may entail participation in live or online coursework provided by outside institutions. Such courses may contain some material that was presented in CCOM courses which the student has successfully completed. The student will be responsible for any additional tuition and fees required to complete remediation coursework at outside institutions.

If a student receives a failing grade for coursework taken at Midwestern University, that grade is recorded on the transcript as a letter grade ("F" entry.) Upon repetition of a failed course, the original grade of "F" remains on the transcript and the repeated course and new grade are entered on the transcript. The grade for a failed course repeated and passed at Midwestern University or outside institution is recorded on the transcript as a grade of "C." For all failed clinical rotations at Midwestern University repeated and passed, a grade of "C" will be recorded on the transcript. For both preclinical coursework and clinical rotations that are repeated, the original failing grade will remain on the transcript but will not be included in the GPA calculations. The grade of "C" will be included in the GPA calculation. If a repeated preclinical course or clinical rotation is failed, a grade of "F" is again recorded on the transcript and included in the GPA calculation. Students who fail a course a second time will be recommended for dismissal.

Grading System

Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows:

Grade	Percent (%)	Quality Points (per credit)	Comments
A	93–100	4.000	—
A-	90–92	3.670	—
B+	87–89	3.330	—
B	83–86	3.000	—
B-	80–82	2.670	—
C+	77–79	2.330	—
C	70–76	2.000	—
F	< 70	0.000	—
I	—	0.000	An Incomplete (I) grade may be assigned by a course director when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete (I) grades will be resolved within 10 calendar days from the end of final exams for the quarter. In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with notice to the Registrar. If an incomplete grade remains beyond the 10 days, it may be converted to a grade of "F," which signifies failure of the course.
IP	—	0.000	An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter with notification of the Registrar.

Grade	Percent (%)	Quality Points (per credit)	Comments
P	—	0.000	A pass designation (P) indicates the student made satisfactory progress or completed required coursework satisfactorily. Grade of 'P' is counted toward credit hour accruals for graduation but is not counted in any GPA calculations.
W	—	0.000	Withdrawal/Passing is given when the student's grade at the time of withdrawal is >70% or >C. Withdrawal/Passing is not counted in the GPA calculation, and is not counted in credit hour accrual for graduation. Refer to the MWU Academic Policies for details.
WF	—	0.000	Withdrawal/Failing is given when the student's grade at the time of withdrawal is < 70% or < C. Withdrawal/Failing is not counted in the GPA calculation and is not counted in credit hour accrual for graduation. Refer to the MWU Academic Policies for details.
AU	—	0.000	This designation indicates an audited course, that is, a student registered for a course with the understanding that neither academic credit nor a grade is earned. The course status may not be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.
PG			This designation indicates the grade is pending (Pending Grade) in a course or rotation. 76

These grading scales apply to all courses unless otherwise noted in the course syllabus.

Immunization and Screening Policy

CCOM students are required to follow the immunization policy as outlined in the Student Handbook. Immunization requirements for CCOM students are subject to current Center for Disease Control (CDC)/applicable state health department protocols and affiliated hospital/site rotation requirements.

Students who do not follow the immunization policy by the stated deadline may jeopardize their acceptance or continued enrollment in the College. If, at any time, testing, attestation of disease-free state or immunizations expire, students may be placed on academic leave of absence until such time they are in full compliance with this requirement.

Insurance Policy

CCOM students are required to follow the insurance policy coverage as outlined in the Student Handbook. Insurance requirements for CCOM students are subject to state health department protocol and affiliated hospital rotation requirements. Students who do not follow the insurance policy by the stated deadline may jeopardize their acceptance or continued enrollment in the College. Proof of health insurance will be required annually. Students who are carrying Medicaid should acquire additional temporary health insurance coverage if they participate in clinical rotations in a state different from which they reside.

Liaison Structure

Student Representatives

Each class elects student representatives following the guidelines stated in the current Student Handbook. The student representatives serve to bring to discussion any issues pertaining to academic schedules, University policy and academic and nonacademic issues that relate to the teaching environment in all four years of the curriculum. The student representatives can meet directly with a representative from the Office of the Dean, the Chairpersons, the Course Directors or the faculty of the departments formally involved in the preclinical and/or clinical curriculum to address the issues noted above.

Student Promotions Committee

The Promotions Committee reviews the academic performance of students in the preclinical and clinical years. The committee meets as needed to review academic and professional progress of students and considers

student cases of academic failure, or identified academic deficiencies, as well as circumstances in which students have not met the Student Promotions Committee Guidelines* professional standards set forth in the Osteopathic Oath. Students who attain satisfactory academic and professional progress are promoted to the next academic year provided all tuition and fees have been paid.

Students with one course or rotation failure have the option of meeting with the Promotions Committee but are not required to do so. Students with two or more course or rotation failures are required to meet with the Promotions Committee. Failure to appear, when required, may result in disciplinary action and does not constitute a reason for appeal. Decisions of the committee are confidentially sent to the affected students. The right of appeal exists and is described elsewhere in this catalog. Appeals must be filed in writing with the Dean within three business days following official notification of the committee's decision. The Promotions Committee also recommends to the Faculty Senate for graduation those students who have successfully completed curricular requirements, who have passed COMLEX-USA Level 1 and Level 2 CE of the National Board of Osteopathic Medical Examiners, and who have paid all tuition and fees.

Course or Clinical Rotation	Usual Action*	Academic Status	Timing of Repeat Course/Rotation*	Action Following Remediation
All passed	Promote or Graduate	Good Standing	N/A	N/A
One course or one rotation failure	Retake course/rotation	Academic Warning	Summer, Extended Study Program (ESP), or on the Promotions Committee's recommended schedule	Pass: Promote Fail: Dismiss
Any combination of course or rotation failures resulting in two failures	Retake course/rotation	Academic Probation	Summer, Extended Study Program (ESP), or on the Promotions Committee's recommended schedule	Pass both: Promote Fail either: Dismiss
Any combination of course or rotation failures resulting in three failures	Recommend dismissal			

* Action may be modified by the Promotions Committee for reasons of additional considerations.

Failures in elective courses carry the same weight as failures in core curriculum courses.

Promotion Policy

Students must meet all requirements for their class year in order to be promoted to the next class year.

Student Advising

COMCoaching Program

The COMCoaching Program pairs interested students with a faculty member or third/fourth year CCOM student to facilitate individual discussion pertinent to the requesting student's needs. Topics typically focus on acclimating to the medical school environment, achieving academic success, maintaining a school/life balance and preparation for boards. Interested students may contact the Office of the Dean to request a faculty or student COMCoach. Students who are struggling academically may be required to work with a faculty COMCoach.

Faculty Advisor/Mentor

Students are encouraged to use the advice, expertise and help of the faculty. Students should feel free to contact a faculty member of their choice for advice, encouragement and support. Students may also contact the Office of the Dean to have a faculty mentor assigned through the COMCoaching program.

Supervision of Medical Students by Licensed Healthcare Providers

IL MEDICAL PRACTICE ACT (225 ILCS 60/13) (from Ch. 111, par. 4400 13) Sec. 13. Medical students. Candidates for the degree of doctor of medicine, doctor of osteopathy, or doctor of osteopathic medicine enrolled in a medical or osteopathic college, accredited by the Liaison Committee on Medical Education or the Bureau of Professional Education of the American Osteopathic Association, may practice under the direct, on premises supervision of a physician who is licensed to practice medicine in all its branches in Illinois and who is a member of the faculty of an accredited medical or osteopathic college. (Source: P.A. 89 702, eff. 7 1 97.) www.ilga.gov

As part of their medical education experience, medical students must have direct, on-premises supervision by licensed healthcare providers within their scope of practice and with appropriate qualifications in their disciplinary fields who are licensed to practice medicine in the state in which care is being provided. In the case of physicians, the physician must be AOA or ABMS board certified/eligible to serve as a preceptor or clinical faculty member.

Any licensed healthcare provider, as defined above, who is designated as a teacher for CCOM students, is recognized to be a member of the extended faculty. Any health professional providing health services to a student, through a therapeutic relationship, must recuse themselves from the academic assessment or promotion of the student receiving those health services.

Scholarships for Enrolled Students

There are a number of [scholarships](#) for enrolled CCOM students.

Midwestern University GME Consortium

Historical match rates to graduate medical education programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) and/or the American Osteopathic Association (2019 only) can be found on the [CCOM webpage](#).

Since July 1, 2020, all GME programs are accredited only by ACGME.

CCOM offers a continuity of osteopathic medical education from the first year of medical school to the final year of graduate medical education. CCOM academically supports GME programs covering a variety of medical specialties at various teaching hospitals in the Chicagoland area.

CCOM also participates in the Midwestern University GME Consortium. This consortium sponsors GME programs in the southwestern United States in the area of the Midwestern University Glendale Campus. CCOM clinical faculty leadership academically and administratively support GME programs in the consortium.

The AOA Code of Ethics

The American Osteopathic Association has formulated this Code to guide its member physicians in their professional lives. The standards presented are designed to address the osteopathic physician's ethical and professional responsibilities to patients, to society, to the AOA, to others involved in healthcare and to self. Further, the American Osteopathic Association has adopted the position that physicians should play a major role in the development and instruction of medical ethics.

Section 1. The physician shall keep in confidence whatever the practitioner may learn about a patient in the discharge of professional duties. Information shall be divulged by the physician when required by law or when authorized by the patient.

Section 2. The physician shall give a candid account of the patient's condition to the patient or to those responsible for the patient's care.

Section 3. A physician-patient relationship must be founded on mutual trust, cooperation, and respect. The patient, therefore, must have complete freedom to choose a personal physician. The physician must have complete freedom to choose which patients to serve. However, the physician should not refuse to accept patients for reasons of discrimination, including, but not limited to, the patient's race, creed, color, sex, national origin, sexual orientation, gender identity or handicap. A physician should always be available to provide emergency services.

Section 4. A physician is never justified in abandoning a patient. The physician shall give due notice to a patient or to those responsible for the patient's care when the physician withdraws from the case so that another physician may be engaged.

Section 5. A physician shall practice in accordance with the body of systematized and scientific knowledge related to the healing arts. A physician shall maintain competence in such systematized and scientific knowledge through study and clinical applications.

Section 6. The osteopathic medical profession has an obligation to society to maintain its high standards and, therefore, to continuously regulate itself. A substantial part of such regulation is due to the efforts and influence of the recognized local, state and national associations representing the osteopathic medical profession. A physician should maintain membership in and actively support such associations and abide by their rules and regulations.

Section 7. Under the law a physician may advertise, but no physician shall advertise or solicit patients directly or indirectly through the use of matters or activities which are false or misleading.

Section 8. A physician shall not hold forth or indicate possession of any degree recognized as the basis for licensure to practice the healing arts unless the physician is actually licensed to practice on the basis of that degree in that state. A physician shall designate the physician's osteopathic school of practice in all professional name uses.. Indications of specialty practice, membership in professional societies, and related matters shall be governed by rules promulgated by the American Osteopathic Association.

Section 9. A physician should not hesitate to seek consultation whenever it is believed advisable for the care of the patient.

Section 10. In any dispute between or among physicians involving ethical or organizational matters, the matter in controversy should first be referred to the appropriate arbitrating bodies of the profession.

Section 11. In any dispute between or among physicians regarding the diagnosis and treatment of a patient, the attending physician has the responsibility for final decisions, consistent with any applicable hospital rules or regulations.

Section 12. Any fee charged by a physician shall compensate the physician for services actually rendered. There shall be no division of professional fees for referrals of patients.

Section 13. A physician shall respect the law. When necessary a physician shall attempt to help to formulate the law by all proper means in order to improve patient care and public health.

Section 14. In addition to adhering to the foregoing ethical standards, a physician shall recognize a responsibility to participate in community activities and services.

Section 15. It is considered sexual misconduct for a physician to have sexual contact with any current patient whom the physician has interviewed and/or upon whom a medical or surgical procedure has been performed.

Section 16. Sexual harassment by a physician is considered unethical. Sexual harassment is defined as physical or verbal intimidation of a sexual nature involving a colleague or subordinate in the workplace or academic setting, when such conduct creates an unreasonable, intimidating, hostile or offensive workplace or academic setting.

Section 17. From time to time, industry may provide some AOA members with gifts as an inducement to use their products or services. Members who use these products and services as a result of these gifts, rather than simply for the betterment of their patients and the improvement of the care rendered in their practices, shall be considered to have acted in an unethical manner.

Section 18. A physician shall not intentionally misrepresent themselves or their research work in any way.

Section 19. When participating in research, a physician shall follow the current laws, regulations and standards of the United States or, if the research is conducted outside the United States, the laws, regulations and standards applicable to research in the nation where the research is conducted. This standard shall apply for physician involvement in research at any level and degree of responsibility, including, but not limited to, research, design, funding, participation either as examining and/or treating provider, supervision of other staff in their research, analysis of data and publication of results in any form for any purpose.

Faculty

Anatomy Faculty

Timothy Campbell, Ph.D.

Texas A&M University College Station
Assistant Professor

Michael Ebeid, Ph.D., M.B.B.Ch.

Creighton University
Assistant Professor

Michele Fornaro, Ph.D., Chair

University of Turin, Italy
Professor

Joanna Goral, Ph.D.

Loyola University Chicago
Professor

Eric Gorscak, Ph.D.

Ohio University
Assistant Professor

Sandra E. Inouye, Ph.D.

Northwestern University
Associate Dean, College of Graduate Studies
Director of Animal Laboratories and Body Donation Program
Professor

Ji Eun Kim, Ph.D.

University of Tennessee
Assistant Professor

Erin Leslie, Ph.D.

Northwestern University
Associate Professor

Vivian E. Noble

Johns Hopkins University
Adjunct Instructor

Terrence Ritzman, Ph.D.

Arizona State University
Assistant Professor

Erin Stephenson, Ph.D.

Royal Melbourne Institute of Technology, Australia
Assistant Professor

Maria Traka, Ph.D.

University of Crete, Greece
Assistant Professor

Anesthesia Faculty

Christian C. Lyngby, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Professor Emeritus

Tian Xia, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Biochemistry and Molecular Genetics Faculty

Bryan C. Bjork, Ph.D.

University of Iowa
Associate Professor

Thomas M. Bodenstine, Ph.D.

University of Alabama at Birmingham
Associate Professor

Nalini Chandar, Ph.D., Chair

University of Madras, India
Professor

Renier Velez-Cruz, Ph.D.

Vanderbilt University School of Medicine
Associate Professor

Susan M. Viselli, Ph.D.

Pennsylvania State University
Professor

Emergency Medicine Faculty

Paul J. Allegretti, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

George Borrelli, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Chair, Department of Clinical Integration
Clinical Assistant Professor

Thomas A. Boyle, D.O.

Philadelphia College of Osteopathic Medicine
Dean, Chicago College of Osteopathic Medicine
Clinical Assistant Professor

April Brill, D.O.

Kansas City University of Medicine and Biosciences
College of Osteopathic Medicine
Chair, Clinical Application
Clinical Assistant Professor

Marie Fleury, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Daniel R. Kowalzyk, D.O., Chair

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Perry E. Marshall, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Associate Dean of Interprofessional Education
Clinical Assistant Professor

Ryan K. Misek, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Course Director
Clinical Assistant Professor

Lauren K. Rutili, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Course Director
Clinical Assistant Professor

Family Medicine Faculty

Justine Benin, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Co-Course Director, Department of Family Medicine
Clinical Assistant Professor

Kathleen M. Bewley-Thomas, D.O., Chair

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Kathryn R. Burke, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

J. Wesley Cook, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Kurt P. Heinking, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Chair, Department of Osteopathic Manipulative
Medicine
Professor

Kim Huntington-Alfano, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Medical Director, MWU Clinics
Clinical Associate Professor

William Imlach, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Melanie R. Jessen, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Kimberly McKinnon, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Marla D. Kushner, D.O.

Michigan State University
College of Osteopathic Medicine
Clinical Assistant Professor

Gary A. Marcotte, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Susan E. Marcotte, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Trevor J. Marcotte, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Ann McDermott, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Maris McIntyre, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Co-Course Director, Department of Family Medicine
Clinical Assistant Professor

Florian Miranzadeh, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

William Moran, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Associate Dean of Clinical Education
Clinical Assistant Professor

Anthony Rizzo, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Michael D. Settecase, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Kaleigh Suhs, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Internal Medicine Faculty

Michael Alebich, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Naresh Chandan, D.O.

Des Moines University
College of Osteopathic Medicine
Clinical Assistant Professor

Anthony DeLorenzo, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Sana Meah, D.O., Chair

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Brian Poustinchian, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Medical Education Faculty

Microbiology and Immunology Faculty

Richard A. Laddaga, Ph.D.

McGill University, Canada
Professor

Balbina J. Plotkin, Ph.D.

University of Tennessee
Professor

Kyle H. Ramsey, Ph.D.

University of Arkansas for Medical Sciences
Vice President and Chief Academic Officer,
College of Health Sciences and Colleges of Dental
Medicine
Professor

Ira M. Sigar, Ph.D.

Illinois Institute of Technology
Associate Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor

Julie Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Lab Manager & Instructor

Vaibhav Tiwari, Ph.D.

Banaras Hindu University, India
Associate Professor

Michael V. Volin, Ph.D., Chair

The University of Chicago
Professor

James M. Woods, Ph.D.

Loyola University Chicago
Assistant Vice President of Research and Sponsored
Programs
Professor

Obstetrics and Gynecology Faculty

Thomas P. Boesen, D.O., FACOOG

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Robert M. Bonaminio, D.O., FACOOG

A.T. Still University
Kirksville College of Osteopathic Medicine
Clinical Assistant Professor

Joseph Bush, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Lecturer

Nicole Cataldi, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Megan Cox-Pedota, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Travis K. Haldeman, D.O., FACOOG

Des Moines University
College of Osteopathic Medicine
Clinical Assistant Professor

Nawar Hatoum, M.D.

Damascus Medical School, Syria
Clinical Assistant Professor

Teresa A. Hubka, D.O., FACOOG (D), FACOG, CS, Chair

Des Moines University
College of Osteopathic Medicine
Clinical Professor

Robert C. Lawler, M.D., FACOOG

Creighton University
Clinical Assistant Professor

Ankita Mahajan, D.O.

Alabama College of Osteopathic Medicine
Clinical Lecturer

Angelique Mizera, D.O., FAAPM&R

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Bryan Sweeney, D.O.

Lake Erie College of Osteopathic Medicine
Clinical Assistant Professor

Osteopathic Manipulative Medicine Faculty

Roseann Brady, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Martha Calden, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Daniel T. Davison, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Kurt P. Heinking, D.O., Chair

Midwestern University
Chicago College of Osteopathic Medicine
Professor

Mark E. McKeigue, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Kimberly McKinnon, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Frank R. Serrecchia, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Alyssa J. Vest-Hart, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Pathology Faculty

Hilal Arnouk, M.D., Ph.D.
The State University of New York at Buffalo
Associate Professor

Louis W. Gierke, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Professor Emeritus

**John N. Kasimos, D.O., M.S., MSHCE, FCAP, FAOCP,
Chair**
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Luigi Strizzi, M.D., Ph.D.
University of Chieti-Pescara, Italy
Associate Professor

Pediatrics Faculty

Eric Culp, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Prashant Deshpande, M.D.
University of Bombay, India
Clinical Assistant Professor

Gene Denning, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Michael DeStefano, M.D.
Rush University
Rush Medical College
Clinical Assistant Professor

Timothy Halt, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Dalia K. Irons, D.O.
Des Moines University
College of Osteopathic Medicine
Clinical Assistant Professor

Sarah Klein, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Catherine A. Macyko, M.D., Section Director
Uniformed Services University of Health Sciences
Clinical Assistant Professor

Frank Serrecchia, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Samir Y. Wassef, M.D.
University of Cairo, Faculty of Medicine, Egypt
Clinical Assistant Professor

Pharmacology Faculty

Joshua R. Edwards, Ph.D.
Michigan State University
Professor

Michael J. Fay, Ph.D.
University of Mississippi
Dean, College of Graduate Studies
Professor

Joshua Gasiorowski, Ph.D.
Northwestern University

Integrated Graduate Program
Associate Director, ORSP
Associate Professor

Keith B. Glaser, Ph.D.

University of California at Santa Barbara
Clinical Professor

Phillip Kopf, Ph.D., Chair

University of New Mexico
Associate Professor

Alejandro M. Mayer, Ph.D.

University of Buenos Aires, Argentina
Professor

Marsha Pierce, Ph.D.

Creighton University
Assistant Professor

Walter C. Prozialeck, Ph.D.

Thomas Jefferson University
Professor

Prasanth Puthanveetil, Ph.D.

University of British Columbia
Assistant Professor

Cai Roberts, Ph.D.

City of Hope, Irell & Manella Graduate School of
Biological Sciences
Assistant Professor

Physiology Faculty

Mae Ciancio, Ph.D.

Loyola University Chicago
Program Coordinator, Master of Biomedical Science,
Biomedical Sciences Program
Professor

Kyle Henderson, Ph.D.

Kansas University Medical Center
Associate Professor

Kathy LePard, Ph.D.

The Ohio State University
Director, Biomedical Science Program
Professor

Rafael Mejia-Alvarez, M.D., Ph.D.

Universidad Nacional Autónoma de México School of

Medicine, Mexico
Baylor College of Medicine
Professor

Paul McCulloch, Ph.D., Chair

University of Saskatchewan, Canada
Professor

Kathleen O'Hagan, Ph.D.

Rutgers, The State University of New Jersey
Associate Dean of Academic Affairs, Chicago College of
Osteopathic Medicine
Professor

Maura Porta, Ph.D.

Loyola University Chicago
Assistant Professor

Fred Romano, Ph.D.

Loyola University of Chicago
Dean, College of Health Sciences (Downers Grove, IL)
Professor

Alexander Rosenberg, Ph.D.

University of Illinois at Chicago
Assistant Professor

Sinju Sundaresan, Ph.D.

Texas Woman's University
Assistant Professor

Behavioral Sciences/Psychiatry Faculty

Behavioral Sciences

Mireille Rizkalla, Ph.D.
University of Northern British Columbia, Canada
Associate Professor

Psychiatry

Rukhsana Iqbal, M.D.

Northeast Ohio University College of Medicine
Clinical Instructor

James MacKenzie, D.O.

Kansas City University of Medicine and Biosciences
Clinical Instructor

Sandy Rhee, D.O.

Midwestern University

Chicago College of Osteopathic Medicine
Chair, Department of Psychiatry
Clinical Assistant Professor

Neeral Sheth, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Surgery Faculty

Shabir Abadin, M.D.

Northwestern University
Feinberg School of Medicine
Clinical Assistant Professor

Raed Abusuwwa, D.O.

A.T. Still University
Kirksville College of Osteopathic Medicine
Clinical Assistant Professor

Thomas Cartolano, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Andrew Dennis, D.O., Chair

Kansas City University of Medicine and Biosciences
College of Osteopathic Medicine
Clinical Assistant Professor

Joseph Durham, M.D.

Tulane University
School of Medicine
Clinical Assistant Professor

Maria Gomez, M.D.

University of Illinois, Chicago
College of Medicine
Clinical Assistant Professor

Elizabeth Gwinn, M.D.

Wayne State University
School of Medicine
Clinical Assistant Professor

Justin Karush, D.O.

New York Institute of Technology
College of Osteopathic Medicine
Clinical Assistant Professor

Nathaniel Koo, M.D.

University of Illinois at Chicago
College of Medicine
Clinical Assistant Professor

Elizabeth Marcus, M.D.

University of Pittsburgh
School of Medicine
Clinical Assistant Professor

Albert Milford, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Justin Mis, B.S.N.

Purdue University
School of Nursing
Clinical Assistant Professor

Thomas Patrianakos, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Sanjeev Pradhan, M.D.

Medical College of Wisconsin
School of Medicine
Clinical Assistant Professor

Stathis Poulakidas, M.D.

Rosalind Franklin University
Chicago Medical School
Clinical Assistant Professor

Abed Rahman, M.D.

Saba University
School of Medicine
Clinical Assistant Professor

Paul S. Ray, D.O.

Des Moines University
College of Osteopathic Medicine
Clinical Professor

Paul Roach, M.D.

Rush University
Rush Medical College
Clinical Assistant Professor

Victor Romano, M.D.
Loyola University Chicago
Stritch School of Medicine
Clinical Assistant Professor

Victoria Schlanser, D.O.
A.T. Still University
Kirksville College of Osteopathic Medicine Course
Director
Clinical Assistant Professor

Frederic Starr, M.D.
Thomas Jefferson University
Sidney Kimmel Medical College
Clinical Assistant Professor

Leah Tatebe, M.D.
University of Texas Southwestern School of Medicine
Clinical Assistant Professor

Paul Wucka, D.O.
Des Moines University
College of Osteopathic Medicine
Clinical Assistant Professor

Courses

ANATD 1511: Histology

In Histology, students study the structure of the cell. They learn the distinguishing morphologic characteristics of the four types of tissue: epithelium, connective tissue, muscle, and nervous tissue. After acquiring this basic knowledge, students then learn how the four tissues combine to form organs. At the conclusion of the course, students are able to identify any organ based upon its microscopic morphology.

Credits 3.0

ANATD 1521: Neuroscience

This is an integrated, interdisciplinary course in which the students learn to identify and describe the structural components and corresponding functions of the human nervous system. Emphasis is given to correlating underlying lesions involving these structures with neurologic deficits and dysfunctions likely to be encountered in clinical practice. Integrated lectures are given by faculty in the departments of Anatomy, Pathology, Pharmacology, Physiology, and Family Medicine.

Credits 6.0

ANATD 1551: Gross Anatomy & Embryology I

This course presents the human body in a regional approach. Through lecture and dissection laboratories, students will learn to apply anatomical knowledge to clinical practice. Students will study the embryological basis of adult anatomy, as well as the developmental basis of important anatomical malformations. This course will cover anatomy of the back, upper limb, thorax and abdomen.

Credits 4.5

ANATD 1552: Gross Anatomy & Embryology II

This course is a sequel to [ANATD 1551](#); the course will continue to present the human body in a regional approach. Through lecture and dissection laboratories, students will continue to learn to apply anatomical knowledge to clinical practice. Students will continue to study the embryological basis of adult anatomy, as well as the developmental basis of important anatomical malformations. This course will cover anatomy of the pelvis, perineum, lower limb, head and neck.

Credits 5.0

BIOCD 1501: Biochemistry I

This course features lectures on basic concepts in biochemistry, cell biology and metabolism, along with small group activities that highlight these biochemical concepts through clinical case studies. Clinical correlations are featured in lectures and interpretation of laboratory data is emphasized. Integration of carbohydrate, protein and lipid metabolism, and organ specific metabolism in health and disease are discussed.

Credits 5.0

BIOCD 1502: Biochemistry II

This course features lectures on human nutrition, molecular biology and genetics in normal development and diseases, including the medical genetics of hereditary disorders and cancer. Clinical correlations are featured in lectures and interpretation of laboratory data using clinical case studies are emphasized in workshops that involve small groups.

Credits 4.5

CLIND 1430: Research Design, Methods and Approaches

The focus of this course is to provide students with general research methodology training. Students will learn how to evaluate the medical literature, develop research questions, test hypothesis, and identify appropriate statistical analysis. Students will complete CITI training required for work and research in clinical setting. They will also learn federal and ethical regulations for protecting human research participants. This course is completed online and is self-paced.

Credits 1.0

CLIND 1502: Foundations of Osteopathic Clinical Practice

Foundations of Osteopathic Clinical Practice is a course for first year students that focuses on their professional development. The topics selected are designed to prepare the student for clinical rotations and clinical practice. They include medical terminology, biomedical statistics, and basic research techniques. In addition, topics such as physician wellness and cultural awareness are discussed in order to promote physician self-knowledge and communication skills. An introduction to population health and the medical education system is also provided to familiarize students with the healthcare system.

Credits 1.0

CLIND 1503: Behavioral Health Assessment

This course introduces psychopathology with descriptive, dynamic and behavioral analyses of typical Behavioral Health syndromes. Emphasis is etiology, assessment and indications for referral. The use of the Diagnostic and Statistical Manual of Mental Disorders as the major diagnostic reference is presented.

Credits 2.0

CLIND 1552: Patient Symptom Presentations I

This clinically-based course introduces first year osteopathic medical students to the basic skills and techniques associated with conducting a comprehensive history and physical examination. Case/symptom introductions set the stage for in-depth discussion that integrates the knowledge gained from the basic science and osteopathic medicine courses. Topics progress from the basic diagnostic process to the cardiovascular exam. Each week's presentation includes communication, interviewing techniques, data collection methods, basic laboratory and diagnostic interpretation to assist the student in the development of medical lexicon. The unique interactive format of this course fosters critical thinking, thereby encouraging students to "think like a doctor."

Credits 3.0

CLIND 1553: Patient Symptom Presentations II

Building upon the foundation of [CLIND 1552](#) and following the same format, this course includes topics such as head, eyes, ears, nose, throat (HEENT), upper and lower extremity musculoskeletal exam, and growth and development.

Credits 1.5

CLIND 1554: Patient Symptom Presentations III

The final course in the Patient Symptom Presentations series continues to mirror the clinical experience. Complex topics include the wellness encounter for different patient populations and concludes with "Putting It All Together."

Credits 2.0

CLIND 1562: Physical Exam Skills I

The Fall Quarter of PES introduces osteopathic medical students to taking a history (utilizing standardized patients), obtaining a review of systems, approaching a differential diagnosis and conducting a normal physical examination (including diagnostic imaging).

Credits 1.0

CLIND 1563: Physical Exam Skills II

The Winter Quarter of PES builds upon the Fall Quarter with regards to the normal physical examination to include diagnostic imaging and history taking. Students are introduced to clinical medicine through the ECCP experience in Winter Quarter. Students also complete a history OSCE. At the completion of Winter Quarter, students will be prepared to perform a complete "head to toe" physical examination.

Credits 0.5

CLIND 1564: Physical Exam Skills III

The Spring Quarter of PES takes osteopathic medical students through specialty examinations, such as the pediatric and geriatric exams. Students also complete a physical exam OSCE, and a second ECCP experience.

Credits 0.5

CLIND 1603: Mental Illness and Treatments

This course focuses on major psychiatric issues and mental health problems individuals often confront such as substance abuse, addiction, cognitive disorders, bereavement, mental retardation, developmental disorders and psychiatric factors associated with medical conditions. The course emphasizes pharmacological therapies as well as clinical issues associated with psychiatric practice.

Credits 1.5

CLIND 1652: Clinical Symptom Integration I

The Fall course of CSI is taught in the second year and builds upon, and reinforces, content taught in the first-year classes with a focus on abnormal findings. Topics include toxicology, endocrinology, ENT, pulmonology, neurology and rheumatology. Within this class, students will be guided to a higher level of clinical thinking. Presentations from physicians representing a variety of clinical fields incorporate prior academic subject material and build upon it with a clinical focus. This class will incorporate real-world patient management techniques and skills critical for a smooth transition from student to clinician.

Credits 7.0

CLIND 1653: Clinical Symptom Integration II

The Winter course of CSI is taught in the second year that builds upon, and reinforces, content taught in the first-year classes with a focus on abnormal findings. Included topics include gastroenterology, psychiatry, OB/Gyne, and cardiology. Within this class, students will be guided to a higher level of clinical thinking. Presentations from physicians representing a variety of clinical fields incorporate prior academic subject material and build upon it with a clinical focus. This class will incorporate real-world patient management techniques and skills critical for a smooth transition from student to clinician.

Credits 5.0

CLIND 1654: Clinical Symptom Integration III

The Spring course of CSI is taught in the second year that builds upon, and reinforces, content taught in the first-year classes with a focus on abnormal findings. Included topics include urology, hematology, oncology, and population health. Within this class, students will be guided to a higher level of clinical thinking. Presentations from physicians representing a variety of clinical fields incorporate prior academic subject material and build upon it with a clinical focus. This class will incorporate real-world patient management techniques and skills critical for a smooth transition from student to clinician.

Credits 3.5

CLIND 1662: Simulated Patient Care I

The Fall course of Simulated Patient Care reinforces basic science education and clinical skills learned in the first year and builds up clinical reasoning and interpretation. Students develop note writing, critical thinking and presentation skills. The ability to read radiographic images, interpret lab tests and perform procedures related to emergent care is practiced.

Credits 2.0

CLIND 1663: Simulated Patient Care II

The Winter course of Simulated Patient Care will reinforce and build upon first year content as well as content presented in [CLIND 1652](#), with cardiac- and abdominal- focused clinical skills, including imaging, EKG, ultrasound, airway management and phlebotomy. Additionally, students will practice clinical reasoning in patients who are poor historians.

Credits 1.0

CLIND 1664: Simulated Patient Care III

The Spring course of Simulated Patient Care will reinforce and build upon first year content as well as content presented in [CLIND 1662](#) and [CLIND 1663](#), with a focus on developing patient case history skills to a group, basic surgical skills, and techniques for evaluating pediatric patients.

Credits 1.0

CLIND 1702: Clinical Skills Assessment/EPA I

Clinical Skills Assessment I is a course offered during the third year. It is designed to evaluate the clinical skills including history taking, physical examination, and developing a diagnosis and treatment plan. Student's written documentation and oral presentation skills are also assessed. The assessment consists of eight Objective Structured Clinical Examinations (OSCEs) utilizing standardized patients. Students are provided with review materials (readings, videos, checklists) to help them prepare. These clinical skills are part of the core Entrustable Professional Activities (EPAs) medical students and residents must master to provide safe patient care.

Credits 1.0

Semester Offered

Fall

CLIND 1703: Clinical Skills Assessment/EPA II

Clinical Skills Assessment/EPA II is offered during the third year. Students are assessed for their mastery of basic procedural skills that are part of the core EPAs. Procedural skills assessed include Foley catheter insertion, bag-valve mask ventilation, and IV insertion. These procedures are performed in a simulation environment. Students are provided with procedure checklists to help them prepare for this assessment.

Credits 1.0

Semester Offered

Spring

CLIND 1710: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1710: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1710A: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1710A: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1804: Clinical Skills Assessment/EPA III

This course will focus on interpretation of laboratory test results, EKGs, and diagnostic imaging. Review will take place through online modules, textbooks, and assigned readings. Students will be assessed using a computer-administered written exam. In addition, all fourth-year students will complete recertification of Advanced Cardiac Life Support and Basic Life Support.

Credits 1.0

Semester Offered

Summer

CLIND 1805: Clinical Skills Assessment/EPA IV

Clinical Skills Assessment/EPA IV will focus on assessing patient transition of care skills such as writing patient admission orders and giving/receiving patient handoff. Students will also be assessed for the ability to collaborate as part of a patient care team.

Credits 1.0

Semester Offered

Winter

CLIND 1810: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1810: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1810A: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLIND 1810A: Directed Study

Remedial Course for COMLEX-USA Exam Retakes Directed Study is a mandatory Pass/Fail four-week course which affords a student time for focused study to prepare to retake the COMLEX-USA Level 1 or Level 2 CE exam following a failure. A student is enrolled in Directed Study upon the recommendation of a representative of the Office of the Dean and/or the Promotions Committee. At the initiation of the course, the student is required to meet with a representative of the Office of the Dean to review their study strategy. A faculty COMCoach is assigned to work with the student for the duration of the Directed Study period. The student is expected to communicate with their COMCoach on a weekly basis to establish a study plan and then to assess progress so alterations to the approach can be made if necessary. Completion of a timed COMSAE examination is a course requirement. Enrollment in Directed Study does not contribute to the minimum number of Elective Rotation weeks required for graduation, nor does it replace any other graduation requirement.

Credits 6.0

CLROD 1701: Selective Rotation

A four-week clinical selective is offered during the third year. Students are given the opportunity to select from a set of asynchronous and hybrid learning experiences covering topics not typically offered in the Core OMS III curriculum.

Credits 6.0

CLROD 1800: Elective Clinical Clerkships

Students have 36 total weeks of elective rotation time available during years 3 and 4. Four to eight weeks occur in the third year (CLROD 1700) and 24-28 weeks occur during the fourth year (CLROD 1800). The length of each elective rotation may vary between 1-4 weeks. Students may request to do one 4-week elective in clinical research. Students may request permission to complete one 4-week elective as an international rotation. Permission will be granted based on rotation availability and any travel restrictions in place at the time of the request. Students may use a total of 8 weeks elective time during years 3 and 4 as vacation. A student must complete 24 weeks of electives to meet graduation requirements.

Credits 30.0-36

CORED 1500A: Interprofessional Healthcare Communication

This course will introduce first year medical, optometry and dental medicine students to the fundamental principles of effective communication in the healthcare setting. The course emphasizes the principles and elements of interpersonal, communication, including cultural awareness between different healthcare providers. It also highlights the important role of interprofessional teams in addressing global health affairs such as healthcare disparities in underserved minorities, as well as suicide and mental health disorders' prevention.

Credits 1.0

CORED 1599: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

EMEDD 1805: Emergency Medicine Rotation

In the emergency departments of CCOM's affiliate hospitals, medical students, under the direction of a faculty member of the department, assist in providing emergency care. Medical students make initial assessments, take histories, do physicals and make case presentations to the attending physician on a patient's condition. They must also propose a diagnosis, develop an appropriate treatment plan, and determine the final disposition of the patient. An orientation lecture and weekly didactic lectures/simulation labs are part of the rotation.

Credits 6.0

FMEDD 1702: Family Medicine Rotation

Medical students complete an 8-week rotation during their third year. Carefully supervised, this experience provides students with the opportunity to practice nonhospital-based outpatient medicine as well as inpatient medicine. The goal of the program is to ensure the student physician is exposed to more common disorders than encountered in an ambulatory care setting. Students are required, under the supervision of a faculty member of the department, to utilize and apply osteopathic concepts in taking a history and physical, perform appropriate procedures, develop a differential diagnosis, formulate a treatment regimen, and identify a health promotion program that includes techniques to bring about changes in the patient's lifestyle.

Credits 12.0

FMEDD 1802: Family Medicine Rotation

This four-week experience enables medical students to continue the process of developing skills in an ambulatory care setting. Fourth year medical students will be exposed to a patient population with more complex pathologies. The requirement of heightened diagnostic skills, as well as increased ability to deal with more serious and complex medical issues result in further development of the student's skills in history taking and physical diagnosis as well as the development of more complex differential diagnoses and treatment plans.

Credits 6.0

IMEDD 1702: Internal Medicine Rotation

Medical students complete an 8 -week rotation during their third year. Under the supervision of departmental faculty, the student will help provide care to patients in either an inpatient or outpatient setting. With the guidance of faculty, the student will take patient histories, perform physical exams, and develop differential diagnoses and treatment plans. Other components of the curriculum include teaching rounds, conferences such as morning report, and lectures at the rotation site. In addition, departmental faculty provide a symptom-based lecture series and clinical skills instruction.

Credits 12.0

IMEDD 1802A: Internal Medicine Rotations

Internal Medicine Rotation 1802A and 1802B are 4-weeks rotations taken by medical students during the fourth year. These rotations enable students to develop their clinical skills to a greater extent in the field of internal medicine. Under the supervision of departmental faculty, the student will help provide care to patients in either an inpatient or outpatient setting. With the guidance of faculty, the student will take patient histories, perform physical exams and develop differential diagnoses and treatment plans. Other components of the curriculum include teaching rounds, conferences such as morning report, and lectures at the rotation site. Students also complete online cases and learning modules to help them develop their skills as self-paced adult learners.

Credits 6.0

IMEDD 1802B: Internal Medicine Rotations

Internal Medicine Rotation 1802A and 1802B are 4-weeks rotations taken by medical students during the fourth year. These rotations enable students to develop their clinical skills to a greater extent in the field of internal medicine. Under the supervision of departmental faculty, the student will help provide care to patients in either an inpatient or outpatient setting. With the guidance of faculty, the student will take patient histories, perform physical exams and develop differential diagnoses and treatment plans. Other components of the curriculum include teaching rounds, conferences such as morning report, and lectures at the rotation site. Students also complete online cases and learning modules to help them develop their skills as self-paced adult learners.

Credits 6.0

MICRD 1652: Infectious Disease, Etiologic Agents and the Immune Response I

This course is the first of a two-course sequence covering both the etiologic agents of infectious diseases and the host immune responses to those agents. This course begins by focusing on fundamental principles of immunology, antigenic characteristics of microorganisms, the cells and mediators involved in host defense mechanisms against pathogens and tumor antigens, lymphatic recirculation and lymphatic flow. Next, the course delves into the basic classification, structure, metabolism and genetics of bacteria, viruses, protozoa, helminthes and fungi. From that point on, lectures and small group/laboratories use the organ systems approach to examine the etiologic agents of infectious disease, the immune system responses and possible immunopathology. Clinical correlations and case presentations are featured for each organ system.

Credits 8.0

MICRD 1653: Infectious Disease, Etiologic Agents and the Immune Response II

This course is the second of a two-course sequence covering both the etiologic agents of infectious diseases and the host immune responses to those agents. The lectures and small group/laboratories continue from the fall quarter course to use the organ systems approach in examining the etiologic agents of infectious disease, the immune system responses, and possible immunopathology. Clinical correlations and case presentations are featured for each organ system.

Credits 5.0

OBGYD 1702: Obstetrics and Gynecology Rotation

This rotation consists of a four-week block in the third year and is designed to provide students with a wide variety of clinical experiences in women's health. The rotation is accomplished in various settings to include: 1) inpatient obstetrics, during which students participate in the labor, delivery, and postpartum care of patients; 2) inpatient gynecology, during which students observe and participate in surgery and pre-and postoperative care as well as daily inpatient rounds on obstetric and gynecologic patients and; 3) outpatient clinics in obstetrics and gynecology, which provide an excellent setting in which students can observe and learn techniques and procedures pertinent to office practice. Ample one-on-one supervision by residents and attending physicians enhances each student's learning process. A formal didactic series covers all major topics in the specialty. Distance learning case studies and quizzes provide consistent training and testing of students through the four-week rotation regardless of site selected. A hands-on OMM skills lab is provided during the simulation session demonstrating the integration of OPP/OMM into women's healthcare. The rotation begins with a general orientation session with simulation and hands-on skills in surgical scrub, suturing and knot tying, and laparoscopic simulation along with gynecologic examinations, and labor and delivery management using the Noelle simulation model. A pre-test assesses the student's pre-rotation fundamental knowledge and is integral to the student's development and final exam assessment. This clerkship provides basic exposure and fundamental knowledge imperative to the primary care of the female patient.

Credits 6.0

OMEDD 1570: Principles of Osteopathic Manipulative Medicine I

This course will be a blended offering of online and in-person hands-on material delivery. The material taught during this course will include landmarks, palpation, motion, somatic dysfunction, viscerosomatic reflexes and osteopathic considerations of the thoracic spine, including the rib cage.

Credits 2.0

OMEDD 1571: Principles of Osteopathic Manipulative Medicine II

This course will be a blended offering of online and in-person hands-on material delivery. The material taught during this course will include osteopathic considerations of the lumbar spine, pelvis, and sacrum.

Credits 2.0

OMEDD 1572: Principles of Osteopathic Manipulative Medicine III

This course will be a blended offering of online and in-person hands-on material delivery. The material taught during this course will include neurologic exam of the lower and upper extremity, osteopathic considerations of the lower and upper extremities, osteopathic considerations of the cervical spine including the sub occipital region, and cranial osteopathy.

Credits 1.5

OMEDD 1670: Clinical Osteopathic Manipulative Medicine

This course will be a blended offering of online and in-person hands-on material delivery. The material taught during this course will include osteopathic considerations of the anterior and peripheral nervous system, osteopathic considerations of the lymphatic system, osteopathic considerations of the GI patient, osteopathic considerations of the cardiac patient, and Chapman's points.

Credits 2.0

OMEDD 1671: Clinical Osteopathic Medicine II

This course will be a blended offering of online and in-person hands-on material delivery. The material taught during this course will include osteopathic considerations of the rheumatology patient, osteopathic considerations of a patient with postural imbalance, and osteopathic considerations of the sacrum.

Credits 2.0

OMEDD 1672: Clinical Osteopathic Manipulative Medicine III

This course will be a blended offering of online and inperson hands-on material delivery. The material taught during this course will include osteopathic considerations of the obstetrical patient, osteopathic considerations of the genitourinary patient, and osteopathic considerations pelvic girdle and pectoral girdle.

Credits 1.0

OMEDD 1801: Osteopathic Manipulative Medicine Rotation

This is a core rotation required of all fourth year students. Each student will spend four weeks in the office of an osteopathic physician who uses an extensive amount of OMT in medical practice. The didactic component will consist of a one-day comprehensive review of osteopathic principles, diagnosis, and common manipulative techniques held on the first day of the rotation in the OMM skills lab on the Downers Grove Campus. At the conclusion of the rotation, a written examination and practical examination will be given. The student will gain practical experience in using osteopathic principles and practices in the clinical setting.

Credits 6.0

PATHD 1601: Pathology I

The first portion of this course focuses on the basic concepts and principles of pathology by analyzing the inherent mechanisms that underlie all disease processes. Students develop an understanding of the processes of cellular injury and adaptation, inflammation and repair, neoplasia, hematology, and laboratory testing. This portion of the course focuses on the pathophysiologic, molecular and genetic alterations that underlie all disease processes, and examines their associated cellular, tissue, and systemic manifestations. The osteopathic principles that emphasize the importance of homeostatic balance and sequelae of its disruption are stressed. The remaining portion of this course introduces students to the study of disease through an organ systems approach.

Credits 5.0

PATHD 1602: Pathology II

This course is a continuum of the organ system approach to the study of human disease introduced in [PATHD 1601](#). The causes and pathophysiologic mechanisms underlying diseases of specific organ systems are examined along with their cytological, histological, and somatic manifestations. The pathophysiologic derangements of these diseases and potential consequences for the patient are also examined. The relationships between organ system diseases and ultimate systemic manifestations/implications are analyzed. Osteopathic principles and theory are incorporated into these studies, along with clinical case-based exercises.

Credits 6.0

PATHD 1603: Pathology III

This course is the last in the continuum of the organ system approach to the study of human disease presented in [PATHD 1601](#) and [PATHD 1602](#). The causes and pathophysiologic mechanisms underlying diseases of specific organ systems are examined along with their cytological, histological, and somatic manifestations. The pathophysiologic derangements of these diseases and potential consequences for the patient are also examined. The relationships between organ system diseases and ultimate systemic manifestations/implications are analyzed. Osteopathic principles and theory are incorporated into these studies, along with clinical case-based exercises.

Credits 4.5

PEDID 1702: Pediatrics Rotation

This four-week rotation is intended to provide the medical student with a comprehensive exposure to a wide variety of pediatric problems under the guidance and facilitation of the pediatric faculty. The curriculum is based on the core objectives of the Council of Medical Student Education in Pediatrics. The rotation includes clinical experience with faculty, online interactive case-based learning, didactic sessions, and simulation experiences. Attendance at all clinical and educational opportunities is mandatory.

Credits 6.0

PHARD 1670: Pharmacology I

The Fall Quarter Pharmacology course includes a total of 50 lectures presented from August-November each year. The primary topics covered include General Principles of Pharmacokinetics and Pharmacodynamics, Pharmacogenomics, Drugs Acting on the Autonomic Nervous System, Endocrine Pharmacology, Hematologic Agents, Immunopharmacology, Gastrointestinal Agents, Anticonvulsants and Pain Management.

Credits 5.0

PHARD 1671: Pharmacology II

Pharmacology II represents a continuation of Pharmacology I and will consist of 30 lectures presented over the Winter quarter. Primary topics to be covered include Cardiovascular Agents (diuretics, antihypertensives, antianginals, antiarrhythmics and drugs for heart failure), Antidiabetic Agents, Drugs for Lipid Disorders and Antimicrobial Agents (antibiotics, antifungals, antivirals and antiprotozoal agents) and Psychotherapeutic Agents (sedatives, anxiolytics, antipsychotics, antidepressants, stimulants, marijuana, alcohol and drugs of abuse).

Credits 3.0

PHARD 1672: Pharmacology III

In Pharmacology III, the focus will shift from general pharmacology to applied clinical therapeutics. In these 20 lectures, the students will receive specific instruction on the uses of common drugs to manage common disease states. Emphasis will be placed on the management of patients' pharmaceutical care and clinical problem solving. Specific conditions to be discussed include hypertension, diabetes, angina, arrhythmias, hyperlipidemias, pain management, common infections and common psychiatric conditions.

Credits 2.0

PHYSD 1501: Physiology I

This course presents the biophysics, functional properties and regulation of excitable cells, skeletal muscle, autonomic nervous system and cardiovascular systems. A discussion of the electrical and mechanical activity of the heart, circulatory fluid dynamics, control of peripheral vascular tone, and neurohumoral control of blood pressure will be included in the cardiovascular section of the course. Small group case discussions facilitate the development of critical thinking and problem-solving skills as the students use basic physiologic concepts to understand the pathogenesis of signs and symptoms in clinical case studies.

Credits 4.0

PHYSD 1502: Physiology II

This course is a sequel to [PHYSD 1501](#) that builds on the physiological foundations developed during the preceding quarter. The initial section of the course presents the function, mechanism of action, regulation and integration of the respiratory, renal and gastrointestinal organ systems that maintain body homeostasis through fluid, electrolyte, acid-base and nutritional balance. The endocrine and reproductive physiology sections of the course present the function, mechanism of action and feedback regulation of hormonal systems. Small group discussions continue to refine critical thinking and problem-solving skills as the students identify the physiologic and pathophysiologic mechanisms underlying the signs and symptoms described in clinical case studies.

Credits 5.5

PSYCD 1702: Psychiatry Rotation

Working on hospital wards and outpatient clinics, the student experiences direct patient contact under the supervision of attending psychiatrists. This third-year experience integrates previous learning with clinical experiences. A series of didactics including lectures and demonstrations facilitate this process.

Credits 6.0

SURGD 1702: Surgery Rotations

The core clerkships in surgery are intended to expose students to a broad scope of surgical disease, allow them to develop the critical skills necessary to manage surgical patients, and to broaden their technical expertise with procedural tasks. General surgery remains the cornerstone of the core clerkship. It is supplemented by surgical subspecialty experiences. Subspecialty choices include: orthopedics, ENT, ophthalmology, neurosurgery, anesthesiology, trauma surgery, burn surgery, plastics and reconstructive surgery, cardiovascular and vascular surgery, and urological surgery. All core clerkships are at CCOM affiliated hospitals and clinical sites. Clerkships are designed around both ambulatory and in-patient settings. Students are expected to scrub and participate in operative procedures as well as in pre-operative and post-operative management. Additionally, students should become proficient in history and physical taking, sterile technique, insertion of foley catheters, suturing, IV access, evaluation of wounds, application of dressings, bandages and splints, and removal of sutures and staples. Throughout the core eight weeks during the third year, students attend a weekly didactic lecture and procedure lab series intended to supplement the clinical experience. Students are also expected to participate in conferences offered by the hospital such as morbidity and mortality, tumor conference, and grand rounds.

Credits 12.0

SURGD 1802: Surgery Rotations

The core clerkships in surgery are intended to expose students to a broad scope of surgical disease, allow them to develop the critical skills necessary to manage surgical patients, and to broaden their technical expertise with procedural tasks. General surgery remains the cornerstone of the core clerkship. It is supplemented by surgical subspecialty experiences. Subspecialty choices include: orthopedics, ENT, ophthalmology, neurosurgery, anesthesiology, trauma surgery, burn surgery, plastics and reconstructive surgery, cardiovascular and vascular surgery, and urological surgery. All core clerkships are at CCOM affiliated hospitals and clinical sites. Clerkships are designed around both ambulatory and in-patient settings. Students are expected to scrub and participate in operative procedures as well as in pre-operative and post-operative management. Additionally, students should become proficient in history and physical taking, sterile technique, insertion of foley catheters, suturing, IV access, evaluation of wounds, application of dressings, bandages and splints, and removal of sutures and staples. Throughout the core eight weeks during the third year, students attend a weekly didactic lecture and procedure lab series intended to supplement the clinical experience. Students are also expected to participate in conferences offered by the hospital such as morbidity and mortality, tumor conference, and grand rounds.

Credits 6.0

College of Pharmacy, Downers Grove Campus

Mission & Vision

Mission

The mission of Midwestern University College of Pharmacy is to advance the profession of pharmacy by educating future and current pharmacists, engaging in scholarship and research, and maximizing health outcomes through patient care and public service in a culturally diverse society.

Vision

The Midwestern University College of Pharmacy is dedicated to excellence and innovation in pharmacy education, scholarship, and service.

Core Values

Midwestern University College of Pharmacy embraces the following core values to guide all our endeavors:

Excellence

We strive to achieve and maintain the highest standards.

Professionalism

We demonstrate responsibility, respect for others, and accountability to uphold the trust of our stakeholders.

Integrity

We embody the principles of honesty, compassion, and ethics.

Inclusion

We celebrate diversity and cultivate a sense of belonging for all.

Collegiality

We commit to working with others to foster collaboration for the improvement of public health and society.

Accreditation

Midwestern University College of Pharmacy Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education (ACPE), 190 S. LaSalle Street, Suite 3000, Chicago, IL 60603; 312/664-3575, Fax 866/228-2631; website www.acpeaccredit.org.

Degree Description

The College's Pharm.D. Program provides students with enhanced experiences in the biomedical, pharmaceutical, and clinical sciences. Candidates seeking admissions into the College are expected to complete approximately two years of pre-pharmacy coursework at another college prior to matriculation. Students matriculating in Summer 2021 and after will be enrolled in the standard three-year professional program. The maximum allotted time for completion of the professional portion of the Pharm.D. program is five calendar years.

Curriculum Outcomes

Graduates of Midwestern University College of Pharmacy will be able to demonstrate competency in 26 curricular outcomes embedded within the following domains:

1. Knowledge and problem-solving skills
2. Patient and population care
3. Practice and systems management
4. Communications and interpersonal skills
5. Personal and professional development
6. One Health and interprofessionalism

Admissions

CPDG considers for admission applicants who possess the academic and professional promise necessary for development as outstanding members of the pharmacy profession. The CPDG admissions environment is highly selective.

Applications received on or before the application deadline are reviewed to determine applicant eligibility for an on-campus interview or virtual interview. Within its competitive admissions framework, CPDG uses multiple criteria to select the most qualified candidates. Cumulative grade point average (GPA), science GPA, letters of recommendation, written communication skills, verbal communication skills, health care experience, knowledge of the profession, and motivation for choosing pharmacy careers are considered when reviewing an applicant's file.

Admission Requirements

Students seeking admission to CPDG must submit the following documented evidence:

1. Completion of 62 semester hours or 90 quarter hours of nonremedial, prerequisite coursework from regionally accredited U.S. colleges or universities, or recognized postsecondary Canadian institutions that use English as its primary language of instruction and documentation.
 - Preferred minimum cumulative GPA and science GPA of 2.50 on a 4.00 scale
 - Grades of "C" or better for prerequisite courses (grades of C- are not accepted)
2. No Pharmacy College Admissions Test (PCAT) score is required for admission. However, if an applicant's cumulative and science GPAs are below 2.75, then the submission of PCAT scores is preferred to enhance the application.
 - Scores may be submitted to the Pharmacy College Application Service (PharmCAS) using PCAT code 104
 - PCAT exams are offered multiple times per year by Harcourt Assessment, Inc.,(also known as Pearson), 800/622-3231 or www.pcatweb.info
 - Applicants currently applying to another college within Midwestern University may have scores from the MCAT, DAT, OAT, or GRE transferred, if their cumulative and science GPAs are below 2.75
 - Current MWU students wishing to apply to the college of pharmacy may have scores from the MCAT, DAT, OAT, or GRE transferred, if their cumulative and science GPAs are below 2.75
 - Only scores earned from the test offered in 2019 or more recently are acceptable
3. Demonstration of a people or service orientation as evidenced by community service or extracurricular activities
4. Motivation for and commitment to the pharmacy profession or general health profession as demonstrated by previous work, volunteer work, or other life experiences

5. Oral and written communication skills necessary to interact with patients and colleagues
6. Completion of the CPDG on-campus interview process (by invitation only). If necessary, virtual interviews may take place
7. Satisfactory Midwestern University criminal background check
8. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy

The Pharm.D. Program at CPDG is rigorous and challenging. The CPDG Admissions Committee will therefore assess the quality and rigor of the prepharmacy academic records presented by applicants. When assessing the prepharmacy academic records of applicants, the Admissions Committee will:

1. View applicants with cumulative GPAs below 2.75 on a 4.00 scale with particular concern. Although 2.50 on a 4.00 scale is the preferred minimum cumulative GPA for admission consideration, higher cumulative GPAs are more competitive and recommended.
 - The average cumulative GPA of applicants admitted for Summer 2022 was 3.22 on a 4.00 scale
2. When submitted, view component and composite PCAT scores below average with particular concern, although there are no minimum PCAT scores, and a PCAT score is not required for admission.
3. View with concern applicants whose prepharmacy math and science coursework was completed longer than 10 years ago.
 - More recent (within four years) prepharmacy math and science coursework is preferred
4. Consider the reputation for quality and rigor of the institutions where applicants have taken previous coursework, the extent of completion of science prerequisites, the credit load carried per term, the difficulty level of previous coursework, and trends in applicant grades.

Prerequisite Courses

Courses	Semester Hours	Quarter Hours
Biology with labs	8	12
Human or Vertebrate Anatomy	3	4
General Chemistry with labs	8	12
Organic Chemistry with labs	8	12
Physics (mechanics, heat, force and motion must be included in the course)	3	4
Calculus (integral & differential)	3	4
English Composition	6	9
Speech/Public Speaking	3	4
Economics	3	4
Statistics (general statistics or biostatistics)	3	4
Social and Behavioral Science Electives (Any two courses within the areas of psychology, sociology, anthropology, or political science).	6	9
General Education Electives (Any three courses not related to science, math, physical education, or health care. Recommended courses include arts and humanities, foreign language, business, and computer courses).	8	12
Total	62	90

Application Process and Deadlines

1. PharmCAS Application:
Applicants are required to submit a completed Pharmacy College Application Service (PharmCAS) application and pay application fees to PharmCAS by May 1st each year. In addition to the online application and application fees, applicants must forward to PharmCAS official transcripts from all colleges and

universities attended by the May 1st date. PharmCAS will not consider an application complete and will not begin the verification process until all official transcripts are received. (Students who have taken coursework and/or earned a degree from a foreign institution must also submit an evaluation of their transcripts from an approved foreign transcript evaluation service).

Students must apply for admission via the Pharmacy College Application Service (PharmCAS) at www.PharmCAS.org. Please refer to the PharmCAS application instructions for specific details about completing the PharmCAS application, required documents, and processing time. PharmCAS applications are typically available beginning in June of the academic year preceding the year in which the applicant plans to matriculate. Students are strongly encouraged to complete their PharmCAS application early in the cycle. CPDG will consider completed applications on a first-come, first-served basis until all seats are filled.

2. Pharmacy College Admissions Test:

No Pharmacy College Admissions Test (PCAT) score is required for admission. However, it is preferred that applicants whose cumulative and science GPAs are below 2.75 arrange for scores from the PCAT to be sent directly to PharmCAS using PCAT code 104. Only test scores received directly from PharmCAS and scores earned from the test offered in 2019 or more recently will be accepted. This exam is offered by Harcourt Assessment, Inc., (also known as Pearson), 800-622-3231; www.pcatweb.info. The exam is typically offered multiple times per year. It is recommended that first-time PCAT test takers should take the exam no later than January 2024. Please check with Harcourt Assessment, Inc. for the exam dates.

Applicants currently applying to another college within Midwestern University may have scores from the MCAT, DAT, OAT, or GRE transferred, which is preferred if their cumulative and science GPAs are below 2.75. Current MWU students wishing to apply to the college of pharmacy may have scores from the MCAT, DAT, OAT, or GRE transferred, which is preferred if their cumulative and science GPAs are below 2.75.

3. Letters of Recommendation:

Applicants must submit two letters of recommendation from professionals to PharmCAS (www.PharmCAS.org). The Office of Admissions will only accept letters of recommendation received directly from PharmCAS. One letter should be written by a college professor who has actually taught the student or by a prehealth advisor. It is preferred that the second letter be written by a pharmacist. However, any one of the following recommenders is also acceptable: prehealth advisor, science professor, or another health care professional who knows the applicant well. Please refer to the PharmCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

4. Completed Applications:

All application materials, including the PharmCASs application, verification of transcripts by PharmCAS, and two letters of recommendation (submitted to PharmCAS), must be received by the Office of Admissions on or before May 1st each year to be reviewed for potential entrance into the College.

Please Note: Applicants are responsible for tracking the receipt of their application materials and verifying the status of their applications on the University website. The Office of Admissions will send instructions to qualified applicants for checking the status of their application materials online.

Applicants are also responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address.

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
630-515-7200; 800-458-6253
admissIL@midwestern.edu

Rolling Admissions

The College of Pharmacy, Downers Grove Campus uses a rolling admissions process in which applications are processed and reviewed during regular intervals in the admissions cycle until the class is filled.

Interview Process

Before invitations are issued to attend an interview, applicants must meet the admission requirements listed previously. After the Office of Admissions receives required application materials, applicant files are reviewed to determine whether applicants merit invitations to attend an interview. Applicants may also be placed on a waiting list pending possible openings toward the end of the admissions cycle.

Interviews are typically held between September and May. Invited applicants must participate in an interview to achieve further consideration in the admissions process. Interviews will be used to evaluate verbal communication skills, understanding of the pharmacy profession, commitment to patient care, and other elements as determined by faculty. Applicants will be required to participate in writing sample exercises on that same day. Interview Days also provide opportunities for candidates to learn more about the pharmacy program, financial aid, student services, as well as tour (or virtually tour) the Midwestern University campus and pharmacy school facilities.

Following applicant interviews, only completed files are forwarded to the Admissions Committee for review. The committee may recommend to accept, deny, or place students on the alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status shortly after their visit.

All requests for application withdrawals must be made in writing.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college. Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses. [The candidate must be able to accurately auscultate lung/breath, heart and bowel sounds to complete the curricular requirement to individually complete physical examination of a patient/client]
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs vertically and horizontally.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to

display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process. The candidate must agree to participate in touching/palpating on the skin and being touched/palpated on the skin by individuals regardless of gender in all academic settings. These activities will take place in large and small group settings as directed in the College's curricular requirements.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Dual Acceptance Programs

These offer applicants the opportunity to gain an early acceptance into Midwestern University's College of Pharmacy and complete prerequisite courses at an affiliated school. If all program requirements are fulfilled, then applicants earn a seat in the College of Pharmacy and may then begin the three-year Doctor of Pharmacy curriculum at either the Downers Grove, IL campus or Glendale, AZ campus. (Note: Although CPDG is frequently referenced in this Dual Acceptance Program section, the option to attend CPG on the Glendale, AZ campus remains.)

Affiliated Schools

There are affiliation agreements with the following schools for the completion of prerequisite courses:

Four-Year Institutions:

- Benedictine University - Lisle, IL
- Dominican University - River Forest, IL
- Elmhurst University - Elmhurst, IL
- Hebrew Theological College - Skokie, IL
- Illinois Institute of Technology - Chicago, IL
- Lewis University - Romeoville, IL
- Loyola University Chicago - Chicago, IL
- Rockford University - Rockford, IL
- University of Saint Francis - Fort Wayne, IN
- University of Wisconsin-Milwaukee -Milwaukee, WI

Community Colleges:

- College of DuPage - Glen Ellyn, IL
- Moraine Valley Community College - Palos Hills, IL
- Prairie State College - Chicago Heights, IL

Available Tracks

Track 1:

- Must be a senior in high school at the time of application.
- Apply to one or more of the affiliate schools and later gain acceptance (choose one school to attend).
- Must have a weighted cumulative high school GPA of at least 3.0 (on a 4.0 scale).
- Optional: If desired, applicants may submit scores on college entrance exams:
 - ACT of 24 or higher (submit scores directly using code 6400)
 - SAT of 1190 or higher (submit scores directly using code 3788)
- Completed application and official high school transcripts are due to Northwestern University on the following dates:
 - Early Decision: November 1st
 - Regular Decision: February 15th
- All pre-pharmacy coursework must be completed within two years at the chosen affiliate school.

Track 2:

- Must be a full-time first-year student (freshman) already attending one of the affiliate schools at the time of application.
- Must have a cumulative GPA of at least 3.0.
- Completed application and official affiliate school transcripts are due on June 6th. Transcripts must reflect two semesters of full-time coursework at the affiliate school.
- All pre-pharmacy coursework must be completed within two years at the affiliate school from the time of Dual Acceptance Program acceptance.

Applicants should additionally reflect a motivation for and commitment to the pharmacy profession. Upon review of completed applications and submitted transcripts, invitations for participation in Interview Day will be extended, after which conditional admission decisions are rendered.

Applications and Admissions Process

Eligible students may access the [free applications](#).

Track 1 Application - Deadline: November 1st (early decision) or February 15th (regular decision). To apply to affiliate schools for the pre-pharmacy coursework, please contact the institution(s) directly. If applying to more than one affiliate school, this can be designated in the application.

Track 2 Application - Deadline: June 6th

For both tracks, official transcripts should be forwarded to: Northwestern University, Office of Admissions, 555 31st Street, Downers Grove, IL 60515. (Transcripts for Track 2 applicants should reflect two semesters of full-time coursework at the affiliate school).

After the Northwestern University Office of Admissions receives all completed application materials, applicant files are reviewed to determine which applicants merit invitations to attend an on-campus or virtual Interview Day.

During the Interview Day, candidates will:

- Participate in personal interviews that evaluate verbal communication skills, understanding of the pharmacy profession, commitment to patient care, and other elements as determined by faculty.
- Participate in a writing sample exercise.
- Learn more about the pharmacy program, student services, as well as tour (or virtual tour) the Northwestern University campus and pharmacy school facilities.

Following applicant visits, applicant files are forwarded to the Admissions Committee for review. The committee may recommend to conditionally accept or to deny student admissions. These recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status within two weeks of their visits. Conditionally accepted applicants will be ensured a seat at CPDG upon successful completion of the program requirements.

Program Conditions

All five of the following academic conditions must be met to retain admission to CPDG for the respective summer quarter. If any conditions are not met, then the student will no longer be a participant in the Dual Acceptance Program and will be encouraged to apply to MWU CPDG via the traditional application process.

Condition #1

All pre-pharmacy prerequisite courses must be completed at the affiliated college or university within a two-year period for Track 1 students, and within two years upon acceptance into the Dual Acceptance Program for Track 2 students. (All courses must be completed by end of spring just before transition into CPDG.) Refer to the appropriate required coursework for a particular affiliated college or university.

- Students cannot take summer classes at another college or university, even if that school is a Dual Acceptance Program (DAP) affiliate school.
- Note that some affiliated colleges or universities require placement exams and have special requirements for students who earn advanced placement credit.
- Some exceptions to the "affiliate college or university only" rule may apply. For example: Recognized AP credit granted for work completed prior to beginning at the affiliated college or university. If the institution recognizes and grants a student credit and the credit appears on that student's transcript, then that credit will be accepted.

Condition #2

Student must achieve a 3.0 cumulative GPA at the conclusion of the summer term after the first full year in the program. Only courses taken at the affiliated college or university are to be used in the final cumulative GPA calculation.

Condition #3

A minimum pre-pharmacy science grade point average (GPA) of 2.50 must be also achieved and maintained.

Condition #4

Student must earn a grade of C or higher in all required prerequisite courses. Grades of C- (minus) are not accepted.

Condition #5

In the first year of the program, students may repeat one course for a higher grade one time. Both attempts will be included in the cumulative GPA calculation. In addition to meeting these academic conditions, Early Assurance Program students must:

- Upon acceptance, submit a signed Letter of Understanding to the Midwestern University Admissions Office.
- Complete and submit a modified PharmCAS application, which will include the submission of transcripts for coursework completed at the affiliate school.

- Sign and return a College of Pharmacy, Downers Grove Campus Matriculation Agreement and Technical Standards Certification Form. Both of these agreements will be sent to qualified students in the fall before their completion of their pre-pharmacy coursework in the following spring. The Matriculation Agreement will outline deposit requirements, final transcript submission, proof of immunizations, proof of insurance, and mandatory health testing requirements.
- Submit required matriculation deposit fee (amount and deadline date will be designated in Matriculation Agreement.)

In order to enhance their performance when later attending CPDG, students should consider these additional experiences:

- Involvement in extracurricular/leadership activities in the community or affiliated college or university.
- Volunteer or paid healthcare experiences (pharmacy, if possible)

Progress Checks

Program students should meet with their affiliated college or university's assigned academic advisor every semester. The advisor monitors the progress of students and will advise CPDG of any students failing to meet the requirements.

Any student who fails to meet the program requirements will be encouraged to apply to CPDG via the traditional route (submit PCAT scores, if the cumulative or science GPA is below 2.75). NOTE, the traditional application process is competitive, hence former Dual Acceptance Program students must compete for available seats and are not guaranteed admission via this route.

Additional Agreements

The following agreements are not associated with the Dual Acceptance Program (DAP). These are additional early assurance opportunities during the application process.

Benedictine University's MSIP Program Applicants

Students currently enrolled in Benedictine University's Master of Science in Integrative Physiology (MSIP) program may be eligible for a guaranteed interview as an applicant to Midwestern University's College of Pharmacy, Downers Grove Campus's Pharm.D. program. To qualify for a guaranteed interview as part of the application process, the following criteria must be met:

- Meet all traditional admission requirements of Midwestern University's pharmacy program.
- Apply for admission to Midwestern University using PharmCAS by the May 1st deadline for Summer enrollment at Midwestern University immediately following the completion of the MSIP at Benedictine.
- Have an MSIP program GPA of 3.5 or higher at the time of application to Midwestern University.
- No final course grade less than a "C" in Benedictine University's MSIP program.
- Have a Cumulative Overall GPA of 3.2 or higher, including courses taken in Benedictine University's MSIP program.
- Submit PCAT scores, if the student has a cumulative and science GPA below 2.75.
- Be recommended by the Director of the MSIP program with an additional letter from a professional or academic reference.
- Patient contact experience is highly recommended, particularly to demonstrate a discernment process to enter the pharmacy profession.
- All applicants must meet Midwestern University's technical standards, which is essential to delineate the psychomotor, cognitive, and affective skills needed for matriculation into, continuation in, and graduation from the educational program.

- If accepted into the program, must meet all other enrollment requirements including but not limited to medical, criminal background, and substance abuse clearance.

Arizona Christian University Applicants

Students currently enrolled in Arizona Christian University, may be eligible for a guaranteed interview as an applicant to Midwestern University College of Pharmacy, Downers Grove Campus's Pharm.D. program. To qualify for a guaranteed interview as part of the application process, students must meet the following criteria:

- Achieve a minimum of a 3.25 cumulative grade point average (on a 4.00 scale) in undergraduate coursework (with a 3.25 cumulative grade point average in sciences).
- Submit scores from the Pharmacy College Admissions Test (PCAT) during the previous five years of the current admission cycle if the student has a cumulative and science GPA below 2.75.
- Have completed the minimum number of the prerequisite courses (as stated in the Midwestern University Catalog) in the prescribed subject areas at a regionally accredited college or university with a grade of C or better before the program begins.
- Have the ability to successfully fulfill all technical standards for the respective College.
- Receive satisfactory scores at the interview with the MWU Admissions Committee members on the day of the admissions interview.
- Demonstrate a good understanding of and a sincere interest in pharmacy, including shadowing at least one pharmacy professional prior to admission.
- Personal integrity and sound moral character.
- Reflect a people/service orientation through community service or extracurricular activities.
- Abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
- Pass a criminal background check.
- Meet all other requirements set forth by MWU, including requirements documented in the catalog and student handbook.

Reapplication Process for the Pharm.D. Program

After receiving a denial letter, applicants may reapply for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of an admissions counselor. To initiate the reapplication process, students must submit their applications to PharmCAS. Applications are then processed by the standard application procedures.

Transfer Admission from Another Pharmacy School

CPDG may accept transfer students from other ACPE-accredited pharmacy schools who are currently enrolled, are in good academic standing, and provide legitimate reasons for seeking transfer.

Transfer applicants should not apply via PharmCAS.

All requests for transfer information should be referred to the CPDG Dean's Office, where potential transfer applicants can be counseled prior to receiving and submitting applications.

Students requesting transfers must meet the College's general requirements for admission. They must also submit the following documents by January 15th:

1. A letter to the Dean or Director of Admissions outlining their reasons for requesting transfer and explaining any difficulties encountered at their current institution.
2. A completed CPDG transfer application.
3. Official transcripts from all schools attended—undergraduate, graduate, and professional.
4. Catalogs and detailed pharmacy syllabi for any courses for which advanced standing consideration is requested.

5. A letter from the Dean of the college of pharmacy in which the student is enrolled that describes their current academic status and terms of withdrawal or dismissal.
6. One letter of recommendation from a faculty member at the current college of pharmacy.
7. Additional documents or letters of recommendation as determined by the Director of Admissions or Dean.

The Office of Admissions will collect and forward student portfolios to the Office of the Dean for review. When reviews are positive, candidates will be invited for interviews and their applications will be forwarded to the Admissions Committee which will provide a recommendation. When transferring students are admitted and request advanced standing, the Office of the Dean will forward these student requests to the appropriate faculty. No advanced standing credit will be awarded for professional pharmacy coursework completed at a foreign college of pharmacy.

Following the interview, files are forwarded to the Admissions Committee for review. The Committee may recommend to accept, deny, or place the student on the alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status within one to two weeks of the interview. When transferring students are admitted and request advanced standing, the CPDG Dean's Office will forward students' requests to the Student Promotion and Graduation Committee (see relevant section below). No advanced standing credit will be awarded for professional pharmacy coursework completed at foreign colleges of pharmacy.

PCAT scores are optional and may be provided by transfer student applicants.

Readmission After Dismissal for Poor Academic Performance

Students dismissed or who withdraw due to poor academic performance may reapply for admission to CPDG if they:

1. Seek academic counseling from the Office of the Dean prior to enrolling in the required advanced prepharmacy curriculum;
2. Complete at least two semesters or three quarters of full-time study (i.e., at least 15 credit hours per semester or quarter) of a curriculum at the advanced prepharmacy level or higher at a regionally accredited U.S. college or university;
3. Earn grades of at least C (not C-) in all courses taken;
4. Maintain a cumulative GPA of 2.50 or better.

Students fulfilling these requirements will be permitted to reapply to the University and CPDG. Students should obtain their applications from the Office of the Dean and not through PharmCAS. Completed readmission applications must be submitted by February 15th to the Office of the Dean. The completed application of reapplying PS-I students will be forwarded to the Admissions Committee for review and recommendation. The completed application of a reapplying PS-II or PS-III student will be forwarded by the Office of the Dean to the Student Promotion and Graduation Committee for review and recommendation. The respective committees will review applications for evidence of improved academic potential. Committee recommendations are forwarded to the Office of the Dean for final action.

No guarantee of readmission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Readmission will be granted only once.

Graduation Requirements for the Doctor of Pharmacy (Pharm.D.) Program

The degree Doctor of Pharmacy (Pharm.D.) is conferred upon candidates of good moral character who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements. All graduating students are required to attend the commencement for conferral of the degree, unless excused by the Dean.

Candidates for graduation must exhibit good moral behavior consistent with the requirements of the pharmacy profession and CPDG faculty. It is the position of the faculty that anyone who uses, possesses, distributes, sells, or is under the influence of narcotics, dangerous drugs, or controlled substances, or who abuses alcohol or is involved in any conduct involving moral turpitude, and fails to meet the ethical and moral requirements of the profession, may be dismissed from the program or denied the awarding of the Pharm.D. degree.

To qualify for graduation, a student must have satisfied the following requirements:

1. Successfully completed a minimum of 90 quarter credit hours or 62 semester credit hours of prerequisite coursework, as stipulated for admission to the program;
2. Successfully completed the 203 quarter credit hours of the professional and experiential program approved by the CPDG faculty and Dean;
3. Attained a cumulative grade point average of 2.000 for all requisite professional and experiential coursework at the College;
4. Achieved a cumulative Advanced Pharmacy Practice Experience grade point average of 2.000 or greater;
5. Repeated, upon approval, and earned a passing grade for any required courses in the professional program for which a grade of "F" has been issued;
6. Successfully completed, at a minimum, the last five didactic quarters and all Advanced Pharmacy Practice Experiences at CPDG;
7. Been recommended for the degree by a majority vote of the Student Promotion and Graduation Committee;
8. Settled all financial accounts with the University;
9. Completed all graduation clearance requirements as instructed by the Office of the Registrar.

Licensure Requirements

To practice in the United States, including Illinois, students must successfully complete an ACPE accredited Doctor of Pharmacy program. Students must also accrue a minimum number of practical training hours and pass two licensure examinations; the North American Pharmacy Licensure Examination (NAPLEX) and NABP Multistate Pharmacy Jurisprudence Examination (MPJE). More information about licensure examinations is available from the: National Association of Boards of Pharmacy, 1600 Feehanville Drive, Mount Prospect, IL 60056, 847/391-4406

Midwestern University College of Pharmacy's Doctor of Pharmacy program meets the educational requirements for licensure to practice as a pharmacist in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Guam, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Each student should check the additional licensure requirements for the state, district, or territory in which they intend to pursue employment.

Special Note: Licensure in the states of Arkansas and South Dakota requires an additional 240 hours of pharmacy practice experiences. Licensure in the state of Minnesota may require additional hours of traditional compounding and dispensing pharmacy practice experience.

Midwestern University College of Pharmacy, Downers Grove Campus has not made a determination that its Doctor of Pharmacy Program curriculum meets the territorial educational requirements for licensure or certification in the following territories: Puerto Rico and U.S. Virgin Islands. Students in this program receive a direct notification that Midwestern University has not made a determination if their program meets the requirements in the above listed territories.

Pharm D. Curriculum (Effective Summer 2021)

Degree Type

Doctor of Pharmacy (Pharm.D.)

The College reserves the right to alter the curriculum as it deems appropriate.

Total Quarter Credits in the Professional Program: 203

For students entering the Doctor of Pharmacy Program in or after Summer 2021.

First Professional Year

Summer Quarter

Course Code	Title	Credits
BIOCD 1556	Biochemistry I	2.5
PHYSD 1524	Human Physiology I	3.5
PPRAD 1560	Healthcare Systems	3.0
PPRAD 1551	Cultural Care and Public Health	1.0
PPRAD 1571	Clinical Skills Development I	3.5
PSCID 1520	Pharmaceutical Calculations	3.0

Fall Quarter

Course Code	Title	Credits
BIOCD 1557	Biochemistry II	3.5
CORED 1599B	Interprofessional Education I	1.0
PHYSD 1525	Human Physiology II	3.5
PPRAD 1572	Clinical Skills Development II	3.5
PSCID 1521	Physical Pharmacy and Dosage Forms	3.0
PHIDD 1500	Integrated Sequence Foundations	3.5

Winter Quarter

Course Code	Title	Credits
MICRD 1521	Introduction to Immunology and Biologies	2.0
PHIDD 1501	Integrated Sequence I	5.5
PHIDD 1502	Integrated Sequence II	4.5
PPRAD 1573	Clinical Skills Development III	2.0
PSCID 1522	Dosage Forms Lab	1.0
PSCID 1533	Introduction to Biopharmaceutics and Pharmacokinetics	3.5

Spring Quarter

Course Code	Title	Credits
PHIDD 1503	Integrated Sequence III	4.5
PHIDD 1504	Integrated Sequence IV	4.5
PPRAD 1544	Introduction to Health-Systems Pharmacy Practice	2.5
PPRAD 1552	Pharmacy-Based Immunization Delivery	1.0
PPRAD 1561	Pharmacy Practice Development and Evaluation I	2.5
PPRAD 1574	Clinical Skills Development IV	2.0
	Electives (0-3 credits)	0-3

Second Professional Year

Summer Quarter

Course Code	Title	Credits
PPRAD 1691	Introductory Pharmacy Practice Experience-Community	6.0
PPRAD 1692	Introductory Pharmacy Practice Experience-Health Systems/ Institutional	6.0

Fall Quarter

Course Code	Title	Credits
MICRD 1620	Infectious Diseases and Their Etiologic Agents	3.0
PHIDD 1605	Integrated Sequence V	5.0
PPRAD 1632	Pharmacy Practice Development and Evaluation II	3.0
PPRAD 1675	Clinical Skills Development V	2.0
	Electives (0-3 credits)	0-3

Winter Quarter

Course Code	Title	Credits
CORED 1699B	Interprofessional Education II	1.0
PHIDD 1606	Integrated Sequence VI	4.5
PHIDD 1607	Integrated Sequence VII	4.5
PPRAD 1633	Pharmacy Practice Development and Evaluation III	3.0
PPRAD 1676	Clinical Skills Development VI	2.0
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PHIDD 1608	Integrated Sequence VIII	5.0
PHIDD 1609	Integrated Sequence IX	5.0
PPRAD 1634	Pharmacy Practice Development and Evaluation IV	2.0
PPRAD 1677	Clinical Skills Development VII	2.0
	Electives (0-3 credits)	0-3

Third Professional Year

Summer Quarter

Course Code	Title	Credits
PHIDD 1710	Integrated Sequence X	5.0
PPRAD 1774	Pharmacy Law & Ethics	3.0
PPRAD 1775	Clinical Pharmacokinetics	3.0
PPRAD 1778	Clinical Skills Development VIII	2.0
	Electives (0-3 credits)	0-3

Clinical Block

Course Code	Title	Credits
PPRAD 1780	PharmD Seminar	4.0
PPRAD 1781	Advanced Pharmacy Practice Experience-Community	9.0
PPRAD 1782	Advanced Pharmacy Practice Experience-Health-Systems/ Institutional	9.0
PPRAD 1784	Advanced Pharmacy Practice Experience-Ambulatory Care	9.0
PPRAD 1785	Advanced Pharmacy Practice Experience-Patient Care	9.0
PPRAD 1786	Advanced Pharmacy Practice Experience-Elective	9.0
PPRAD 1787	Advanced Pharmacy Practice Experience-General Medicine/ Acute Care	9.0
	Total Credits	203

Pharm D. Curriculum (Entering Fall 2016 to Fall 2018)

Degree Type

Doctor of Pharmacy (Pharm.D.)

The College reserves the right to alter the curriculum as it deems appropriate.

For students entering the Doctor of Pharmacy Program in Fall 2016 and up through Fall 2018.

First Professional Year

Fall Quarter

Winter Quarter

Spring Quarter

Second Professional Year

Fall Quarter

Course Code	Title	Credits
PHARD 1651	Pharmacology I	2.5
PPRAD 1610	Professional Development II	1.0
PPRAD 1650	IPPE II Health Systems (1/3 of the class)	3.5
PPRAD 1651	IPPE Longitudinal I	2.0
PPRAD 1661	Pharmacotherapeutics II	4.5
PPRAD 1671	Evidence-Based Pharmacy Practice	3.0
PSCID 1621	Chemical Principles of Drug Action I	3.5
	Electives (0-2 credits)	0-2

Winter Quarter

Course Code	Title	Credits
CORED 1699B	Interprofessional Education II	1.0
MICRD 1622	Infectious Disease and Their Etiologic Agents	3.0
PHARD 1652	Pharmacology II	1.5
PPRAD 1650	IPPE II Health Systems (1/3 of the class)	3.5
PPRAD 1652	IPPE Longitudinal II	1.0
PPRAD 1662	Pharmacotherapeutics III	5.5
PSCID 1622	Chemical Principles of Drug Action II	2.5
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PHARD 1653	Pharmacology III	2.0
PPRAD 1650	IPPE II Health Systems (1/3 of the class)	3.5
PPRAD 1653	IPPE Longitudinal III	1.5
PPRAD 1655	*IPPE Advanced Community I (*Class of 2022 only)	1.5
PPRAD 1663	Pharmacotherapeutics IV	4.5
PPRAD 1670	IPPE Clinical Skills & Simulation I	3.0
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PSCID 1623	Chemical Principles of Drug Action III	2.0
	Electives (0-4 credits)	0-4

Third Professional Year

Students may be registered for one Advanced Pharmacy Practice Experience rotation block in Spring Quarter.

Fall Quarter

Course Code	Title	Credits
PHIDD 1710	Integrated Sequence X	5.0
PPRAD 1741	Pharmacy Practice Development & Evaluation II	3.0
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PPRAD 1761	Pharmacotherapeutics V	5.0
PPRAD 1771	IPPE Clinical Skills & Simulation II	2.0
PSCID 1761	Principles of Drug Action I	2.0
	Electives (1-3 credits)	1-3

Winter Quarter

Course Code	Title	Credits
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PPRAD 1762	Pharmacotherapeutics VI	4.0
PPRAD 1772	IPPE Clinical Skills & Simulation III	3.0
PSCID 1762	Principles of Drug Action II	3.5
PSCID 1772	Biotechnology	2.5
	Electives (0-4 credits)	0-4

Spring Quarter

Course Code	Title	Credits
PPRAD 1714	Professional Development IV	1.0
PPRAD 1754	*IPPE Advanced Community II (*Class of 2021 only)	2.0
PPRAD 1773	Pharmacy Law & Ethics	3.0
PPRAD 1793	Clinical Pharmacokinetics	3.0

Clinical Block Fourth Professional Year

Students will be registered for five of the six rotation blocks available.

Course Code	Title	Credits
PPRAD 1802	Community Advanced Pharmacy Practice Experience	9.0
PPRAD 1803	Hospital Advanced Pharmacy Practice Experience	9.0
PPRAD 1804	General Medicine Advanced Pharmacy Practice Experience	9.0
PPRAD 1805	Ambulatory Care Advanced Pharmacy Practice Experience	9.0
PPRAD 1806	Clinical Specialty Advanced Pharmacy Practice Experience	9.0
PPRAD 1807	Elective Advanced Pharmacy Practice Experience	9.0
PPRAD 1810	PharmD Seminar	4.0
	Total Credits	213.5-228.5

Pharm D. Curriculum (Effective Fall 2019)

Degree Type

Doctor of Pharmacy (Pharm.D.)

Standard Graduation Option

The College reserves the right to alter the curriculum as it deems appropriate.

For students who entered the Doctor of Pharmacy Program in Fall 2019 or Fall 2020.

First Professional Year

Fall Quarter

Course Code	Title	Credits
BIOCD 1554	Biochemistry I	2.5
CORED 1599B	Interprofessional Education I	1.0
PHYSD 1522	Human Physiology I	3.5
PPRAD 1510	Professional Development I	1.0
PPRAD 1521	Healthcare Systems	3.0
PSCID 1517	Physical Pharmacy and Dosage Form Design	3.0
PSCID 1518	Pharmaceutical Calculations	3.0

Winter Quarter

Course Code	Title	Credits
BIOCD 1555	Biochemistry II	3.5
CORED 1500B	Interprofessional Healthcare Communications	1.0
MICRD 1520	Introductory Immunology & Biologies	2.0
PHYSD 1523	Human Physiology II	3.5
PPRAD 1525	Fundamentals of Pharmacy Practice	3.0
PSCID 1519	Dosage Form Laboratory	1.0

Spring Quarter

Course Code	Title	Credits
PPRAD 1531	Introductory to Pharmacy Practice Experience (IPPE): Community	6.0
PPRAD 1532	Pharmacotherapeutics I	3.0
PPRAD 1533	Pharmacy Practice Development & Evaluation I	3.0
PPRAD 1543	Institutional Pharmacy Practice	2.5
PSCID 1531	Introduction to Biopharmaceutics and Pharmacokinetics	3.5
PSCID 1532	Introduction to Drug Structure Evaluation	2.0

Second Professional Year

Fall Quarter

Course Code	Title	Credits
PHARD 1651	Pharmacology I	2.5
PPRAD 1610	Professional Development II	1.0
PPRAD 1656	Introductory Pharmacy Practice Experience: Health Systems (1/2 of the class)	3.0
PPRAD 1661	Pharmacotherapeutics II	4.5
PPRAD 1671	Evidence-Based Pharmacy Practice	3.0
PPRAD 1681	Clinical Skills I	2.0
PSCID 1621	Chemical Principles of Drug Action I	3.5
	Electives (0-2 credits)	0-2

Winter Quarter

Course Code	Title	Credits
CORED 1699B	Interprofessional Education II	1.0
MICRD 1622	Infectious Disease and Their Etiologic Agents	3.0
PHARD 1652	Pharmacology II	1.5
PPRAD 1662	Pharmacotherapeutics III	5.5
PPRAD 1682	Clinical Skills II	2.5
PSCID 1622	Chemical Principles of Drug Action II	2.5
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PHARD 1653	Pharmacology III	2.0
PPRAD 1656	Introductory Pharmacy Practice Experience: Health Systems (1/2 of the class)	3.0
PPRAD 1663	Pharmacotherapeutics IV	4.5
PPRAD 1683	Clinical Skills III	2.5
PSCID 1623	Chemical Principles of Drug Action III	2.0
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
	Electives (1-4 credits)	1-4

Third Professional Year

Students may be registered for one Advanced Pharmacy Practice Experience rotation block in Spring Quarter.

Fall Quarter

Course Code	Title	Credits
PHIDD 1710	Integrated Sequence X	5.0
PPRAD 1741	Pharmacy Practice Development & Evaluation II	3.0
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PPRAD 1761	Pharmacotherapeutics V	5.0
PPRAD 1781	Advanced Pharmacy Practice Experience-Community	9.0
PSCID 1761	Principles of Drug Action I	2.0
	Electives (0-4 credits)	0-4

Winter Quarter

Course Code	Title	Credits
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PPRAD 1762	Pharmacotherapeutics VI	4.0
PPRAD 1773	Pharmacy Law & Ethics	3.0
PSCID 1762	Principles of Drug Action II	3.5
PSCID 1772	Biotechnology	2.5
	Electives (0-4 credits)	0-4

Spring Quarter

Course Code	Title	Credits
PPRAD 1714	Professional Development IV	1.0
PPRAD 1793	Clinical Pharmacokinetics	3.0

Clinical Block Fourth Professional Year

Students will be registered for five of the six rotation blocks available.

Course Code	Title	Credits
PPRAD 1802	Community Advanced Pharmacy Practice Experience	9.0
PPRAD 1803	Hospital Advanced Pharmacy Practice Experience	9.0
PPRAD 1804	General Medicine Advanced Pharmacy Practice Experience	9.0
PPRAD 1805	Ambulatory Care Advanced Pharmacy Practice Experience	9.0
PPRAD 1806	Clinical Specialty Advanced Pharmacy Practice Experience	9.0
PPRAD 1807	Elective Advanced Pharmacy Practice Experience	9.0
PPRAD 1810	PharmD Seminar	4.0
	Total Credits	211-227

Pharm D. Curriculum (Effective Fall 2019) Accelerated Graduation Option

Degree Type

Doctor of Pharmacy (Pharm.D.)

The College reserves the right to alter the curriculum as it deems appropriate.

For students who entered the Doctor of Pharmacy Program in Fall 2019 or Fall 2020.

First Professional Year

Fall Quarter

Course Code	Title	Credits
BIOCD 1554	Biochemistry I	2.5
CORED 1599B	Interprofessional Education I	1.0
PHYS 1522	Human Physiology I	3.5
PPRAD 1510	Professional Development I	1.0
PPRAD 1521	Healthcare Systems	3.0
PSCID 1517	Physical Pharmacy and Dosage Form Design	3.0
PSCID 1518	Pharmaceutical Calculations	3.0

Winter Quarter

Course Code	Title	Credits
BIOCD 1555	Biochemistry II	3.5
CORED 1500B	Interprofessional Healthcare Communications	1.0
MICRD 1520	Introductory Immunology & Biologies	2.0
PHYSD 1523	Human Physiology II	3.5
PPRAD 1525	Fundamentals of Pharmacy Practice	3.0
PSCID 1519	Dosage Form Laboratory	1.0

Spring Quarter

Course Code	Title	Credits
PPRAD 1532	Pharmacotherapeutics I	3.0
PPRAD 1533	Pharmacy Practice Development & Evaluation I	3.0
PPRAD 1543	Institutional Pharmacy Practice	2.5
PSCID 1531	Introduction to Biopharmaceutics and Pharmacokinetics	3.5
PSCID 1532	Introduction to Drug Structure Evaluation	2.0
	Electives (0-3 credits)	0-3

Summer Quarter

Course Code	Title	Credits
PPRAD 1531	Introductory to Pharmacy Practice Experience (IPPE): Community	6.0
PPRAD 1656	Introductory Pharmacy Practice Experience: Health Systems (1/2 of the class)	3.0
PPRAD 1773	Pharmacy Law & Ethics	3.0

Second Professional Year

Course Code	Title	Credits
PHARD 1651	Pharmacology I	2.5
PPRAD 1610	Professional Development II	1.0
PPRAD 1661	Pharmacotherapeutics II	4.5
PPRAD 1671	Evidence-Based Pharmacy Practice	3.0
PPRAD 1681	Clinical Skills I	2.0
PSCID 1621	Chemical Principles of Drug Action I	3.5
	Electives (0-4 credits)	0-4

Winter Quarter

Course Code	Title	Credits
CORED 1699B	Interprofessional Education II	1.0
MICRD 1622	Infectious Disease and Their Etiologic Agents	3.0
PHARD 1652	Pharmacology II	1.5
PPRAD 1662	Pharmacotherapeutics III	5.5
PPRAD 1682	Clinical Skills II	2.5
PSCID 1622	Chemical Principles of Drug Action II	2.5
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PHARD 1653	Pharmacology III	2.0
PPRAD 1663	Pharmacotherapeutics IV	4.5
PPRAD 1683	Clinical Skills III	2.5
PPRAD 1753	Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)	3.5
PSCID 1623	Chemical Principles of Drug Action III	2.0
	Electives (0-2 credits)	0-2

Summer Quarter

Course Code	Title	Credits
PPRAD 1762	Pharmacotherapeutics VI	4.0
PPRAD 1793	Clinical Pharmacokinetics	3.0
PSCID 1762	Principles of Drug Action II	3.5
PSCID 1772	Biotechnology	2.5

Third Professional Year

Course Code	Title	Credits
PHIDD 1710	Integrated Sequence X	5.0
PPRAD 1714	Professional Development IV	1.0
PPRAD 1741	Pharmacy Practice Development & Evaluation II	3.0
PPRAD 1761	Pharmacotherapeutics V	5.0
PPRAD 1781	Advanced Pharmacy Practice Experience-Community	9.0
PSCID 1761	Principles of Drug Action I	2.0
	Electives (0-4 credits)	0-4

Clinical Block

Course Code	Title	Credits
PPRAD 1802	Community Advanced Pharmacy Practice Experience	9.0
PPRAD 1803	Hospital Advanced Pharmacy Practice Experience	9.0
PPRAD 1804	General Medicine Advanced Pharmacy Practice Experience	9.0
PPRAD 1805	Ambulatory Care Advanced Pharmacy Practice Experience	9.0
PPRAD 1806	Clinical Specialty Advanced Pharmacy Practice Experience	9.0
PPRAD 1807	Elective Advanced Pharmacy Practice Experience	9.0
PPRAD 1810	PharmD Seminar	4.0
	Total Credits	200-216

Professional Electives

For students entering the Doctor of Pharmacy Program in 2016 through 2020, they must complete a minimum of 8 hours of elective credit in the CPDG program prior to their Advanced Pharmacy Practice Experiences (APPEs).

For students entering the Doctor of Pharmacy Program in or after 2021, they must complete a minimum of 9 hours of elective credit in the CPDG program prior to their APPEs.

Pharmacology

- [PHARD 1420](#)

Pharmacy Practice

- [PPRAD 1301](#)
- [PPRAD 1302](#)
- [PPRAD 1303](#)
- [PPRAD 1306](#)
- [PPRAD 1309](#)
- [PPRAD 1314](#)
- [PPRAD 1315](#)
- [PPRAD 1316](#)
- [PPRAD 1322](#)
- [PPRAD 1324](#)
- [PPRAD 1327](#)
- [PPRAD 1338](#)
- [PPRAD 1339](#)
- [PPRAD 1341](#)
- [PPRAD 1342](#)
- [PPRAD 1345](#)
- [PPRAD 1347](#)
- [PPRAD 1348](#)
- [PPRAD 1350](#)

Pharmaceutical Sciences

- [PSCID 1301](#)
- [PSCID 1302](#)
- [PSCID 1303](#)
- [PSCID 1305](#)
- [PSCID 1370](#)
- [PSCID 1375](#)
- [PSCID 1379](#)
- [PSCID 1380](#)
- [PSCID 1382](#)
- [PSCID 1383](#)
- [PSCID 1384](#)
- [PSCID 1385](#)

Pharmacy Practice Experiences in the Pharm.D. Program

All students are required to be registered pharmacy technicians with student designation in the state of Illinois by the end of the first quarter of enrollment. This registration must be maintained for the entire enrollment period.

Students must be in full compliance with University requirements regarding student health insurance, criminal background checks, drug-free and substance abuse policies and immunizations prior to beginning any experiential course.

For students entering the Doctor of Pharmacy Program in Fall 2019 or Fall 2020.

All students must successfully complete 12.5 credit hours of introductory pharmacy practice experiences (IPPEs) during the first, second or third professional years. These must be completed in community, health systems, and clinical.

Students must complete six full-time (40 hours/week) advanced pharmacy practice experiences (APPEs) during their third or fourth professional year. Each rotation is 6 weeks in length. APPEs include rotations in community advanced pharmacy, hospital advanced pharmacy, ambulatory care, general medicine, clinical specialty and one elective.

For students entering the Doctor of Pharmacy Program in Summer 2021.

All students must successfully complete 12 credit hours of introductory pharmacy practice experiences (IPPEs) during the second professional year. These must be completed in community and health-systems. Students must complete six full-time (40 hours/week) advanced pharmacy practice experiences (APPEs) during their third professional year. Each rotation is 6 weeks in length. APPEs include rotations in community advanced pharmacy, health system advanced pharmacy, ambulatory care, general medicine, patient care and one elective.

Distant Advanced Pharmacy Practice Experiences

Distant Advanced Pharmacy Practice Experiences (APPEs) are defined as 6-week APPEs that are at practice sites outside the greater Chicago area. The greater Chicago area is defined as sites within Chicago and the surrounding counties of Cook, Will, DuPage, Kane, Lake, McHenry, Kendall, and Grundy, as well as parts of DeKalb and Winnebago County, Northwestern Indiana and Southeastern Wisconsin. Students in good academic and disciplinary standing as determined by the College may participate in distant APPEs. Distant APPEs are subject to final approval on an individual basis by the Director of the Office of Experiential Education (OEE). During their PS-II year students may apply to be considered for placement on distant APPEs. Students must attend all mandatory distant APPE meetings and adhere to all assignment deadline dates. All requests will be considered, but placement priority will occur in the following order:

- Students requesting distant APPEs in the same city as their permanent (family) address within the United States.
- Students requesting distant APPEs administered by the United States Public Health Services (e.g. Indian Health Services, Bureau of Prisons).
- Students requesting distant APPEs in cities within the United States where relatives will provide housing for the student.
- Students requesting a distant APPE in a state they may be moving to after graduation.

All distant APPE sites and preceptors must be approved by OEE, and an affiliation agreement must be executed prior to the student beginning the rotation. There is no guarantee that requested distant APPEs will be approved and scheduled. Schedule changes resulting from changes in a preceptor's availability may result in a denied distant APPE request. Students doing distant APPEs are also responsible for contacting the Board of Pharmacy in the state where they are placed to determine the licensure requirement(s) for students on rotations in that state. The student must comply with the requirements for that state and provide proof of compliance to OEE. All travel and living expenses are the student's responsibility.

Departments

Department of Pharmaceutical Sciences

The mission of the Department of Pharmaceutical Sciences is to educate students in the foundational scientific principles essential to the provision of exemplary patient-centered care. The Department is committed to life-

long learning and the professional growth of students, faculty, and staff through engagement in innovative educational strategies, scholarly activities, and service to the academic and scientific communities, the profession of pharmacy, and society.

The Department of Pharmaceutical Sciences subsumes three specialty areas: pharmaceuticals, medicinal chemistry, and natural products/pharmacognosy.

Pharmaceutics is that area of pharmacy associated with the following: designing various dosage forms for delivery of drugs; determining drug storage and stability; and evaluating the effects of administration and formulation factors on the absorption, distribution, metabolism, and excretion of drugs in humans.

Medicinal chemistry is a science that is unique to pharmacy because it is a hybrid of the physical, chemical, biochemical, analytical, and pharmacologic principles employed in explaining the mechanisms of drug action and drug design. The application of principles associated with medicinal chemistry provides the professional student with a firm basis for their career in pharmacy.

Pharmacognosy is that pharmaceutical science concerned with the biological, chemical, and therapeutic uses of drugs obtained from plants, microbes, and animals.

Department of Pharmacy Practice

The mission of the Department of Pharmacy Practice is to develop excellence in the profession through integration of didactic, experiential and postgraduate education. The Department seeks to inspire students, residents and faculty to be responsible patient advocates by promoting and engaging in patient-centered care, community service, scholarship and professional involvement.

The Department of Pharmacy Practice is composed of faculty who provide education in the administrative and clinical sciences, as well as direct practice experience. Required courses in the administrative science area include a survey of the health care system, professional practice management, quality assurance of pharmacy practice, and pharmacy law and ethics. Required courses in the clinical science area include drug literature evaluation, pharmacotherapeutics, clinical pharmacokinetics, and professional practice classes and laboratories that emphasize communication skills, prescription processing, and patient-centered care. Supervised introductory and advanced pharmacy practice experiences required during the program provide opportunities for students to apply knowledge acquired in didactic courses to life situations. The experiences are designed to promote the development of technical, cognitive, and decision-making skills that are necessary for the contemporary practice of pharmacy in a variety of practice environments. Various states apply these experiences to their state board of pharmacy internship requirements.

Office of Experiential Education

The mission of the Office of Experiential Education is to cultivate dedicated and proficient student pharmacists by providing high quality pharmacy practice experiences through the ongoing development of students, sites, and preceptors. The rotation experiences will prepare them to deliver collaborative and exceptional patient care and contribute meaningfully to the profession.

Postgraduate Education

The College offers a number of postgraduate training opportunities: Postgraduate Year Two (PGY-2) ambulatory care pharmacy residency program; PGY-2 infectious diseases pharmacy residency program; and an infectious diseases pharmacotherapy fellowship. In addition, the college is affiliated with one PGY-1 community pharmacy residency program. All College residency programs are fully accredited by the American Society of Health-System Pharmacists.

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the college. In the event that these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Northwestern University.

Early Monitoring of Students in Academic Difficulty

Faculty contact students who have earned a failing grade in required courses after approximately the third or fourth week of the quarter, based on course assessments to date, and offer to meet with them to discuss strategies for success. The Dean's Office also contacts those students, meets with them, and reviews strategies for success and available resources.

The Office of the Dean will notify students who are earning a failing grade in a required course and outline additional learning/studying resources, and/or suggested or required meetings with relevant faculty, Dean's Office personnel, and/or Student Services personnel with the intent to optimize the student's future academic success.

Student Promotion and Graduation Committee

The Student Promotion and Graduation Committee (SPGC) is composed of members of the College faculty and a representative from the Office of the Dean. The Committee is responsible for enforcing the published academic and professional standards established by the faculty and for assuring that the standards are met by all students enrolled in the College. As such, the Committee recommends the criteria, policies and procedures for student advancement and graduation, as well as academic probation, dismissal, and readmission to the College faculty for adoption. The Committee meets, at a minimum, at the end of each academic quarter to review the academic progress and performance of students enrolled in the program in relation to institutional academic policies. At the end of the academic year, the Committee assesses the academic and professional progress and performance of each student. If the student's progress is satisfactory, the student is promoted to the next academic year, provided all tuition and fees have been paid. Finally, the Committee also identifies and recommends candidates for graduation to the MWU Faculty Senate.

If a student fails to make satisfactory progress in completing the prescribed course of study, the Committee shall recommend to the Dean or the Dean's designee appropriate action to correct the deficiency(ies). In instances involving more than one failure of a student to maintain satisfactory academic/professional progress, the Committee may recommend dismissal.

Among the options available to the Committee in regard to unsatisfactory student performance are that the student:

- be placed on academic probation for a specified period of time
- take an alternate approved course offered at another college or university
- repeat the course(s) in which there is a failure according to the College's alternate course retake policy
- repeat the course(s) in which there is a failure when the course is offered again in the curriculum
- be placed in an extended track program
- be dismissed from the College

Academic Standards for the Pharm.D. Program

An annual didactic grade point average will be used as the primary measure of academic performance. It is calculated from all didactic courses for a particular professional year. Grades earned in courses taken prior to matriculation in the professional program, grades earned for courses taken at another institution while enrolled in the professional program are not included in the calculation of this annual grade point average.

Students must maintain an annual grade point average of at least 2.000 in their professional program to remain in good academic standing. If a student earns a grade of "F" in one or more courses or pharmacy practice experiences, the student is notified in writing that they are being placed on academic probation. Academic probation represents notice that continued inadequate academic performance may result in dismissal from the College. The student must repeat all courses or pharmacy practice experiences in which a grade of "F" was received. The recommendation of how a student will remediate a failed course(s) is made by the Student Promotion and Graduation Committee to the Dean or the Dean's designee. The recommendation may include, but not be limited to, an alternate course retake, an extended program of study or dismissal from the program. Placement of a student in an alternate course retake(s) or on an extended program does not modify or limit the Committee's actions for dismissal.

Repeated pharmacy practice experiences are subject to availability of sites as determined by the Office of Experiential Education.

When a student fails to make satisfactory progress in completing the prescribed course of study, the Office of the Dean will notify the student, in writing (i.e., via email) at least two working days in advance of the Committee meeting when the student's academic performance will be reviewed. The student will be offered an opportunity to submit a written reflection letter outlining the circumstances that have led to the course failure(s) and also an opportunity to appear before the Committee (in person, virtually or via telephone) in order to present their case. In such instances, the student shall inform the Office of the Dean, in writing at least 24 hours in advance of the meeting, of their desire to submit a reflection letter and/or appear before the Committee or their intent to waive this right. If the student chooses to appear before the Committee, this prerogative extends to the involved student only and not to any other individuals. The SPGC will make a recommendation on a course of action to the Dean or the Dean's designee. Within two working days following the Committee meeting, the Office of the Dean will provide notification in writing (i.e., via email) to the involved student, informing the student of the recommendation of the Committee and the decision by the Dean or the Dean's designee.

To be returned to good academic standing after completion of an alternate course retake(s) or an extended track year, a student must have an annual grade point average of 2.000 or above and have successfully repeated all courses or pharmacy practice experiences in which a grade of "F" was received. Failure of the same course when it is repeated may result in dismissal from the College. If the student does not meet the criteria for satisfactory academic performance at the end of the alternate course retake(s) or extended program, the student may be dismissed.

The following policies also guide recommendations made by the Student Promotion and Graduation Committee:

1. Students must successfully resolve all "I" (incomplete) and "IP" (in-process) grades before beginning pharmacy practice experiences.
2. To proceed to pharmacy practice experiences, a student must have earned a passing grade in all coursework with an annual grade point average of 2.000 or above. Eligibility to start Introductory Pharmacy Practice Experiences (IPPEs) is determined by the cumulative annual grade point average calculated from all courses in the First Professional (PS-I) Year. Eligibility to start Advanced Pharmacy Practice Experiences (APPEs) is determined by the cumulative grade point average calculated from all coursework over both the Second Professional (PS-II) Year and the Third Professional (PS-III) Year summer quarter.

Student Graduation and Promotion Committee Guidelines

This table summarizes the usual SPGC recommendation. The SPGC recommendation may vary based on specific student circumstances.

Circumstance	Usual Recommendation	Academic Status	Retake Course	Action Following Retake
PS-1, PS-2,3 Didactic Quarters				
All courses passed	Promote	Good Standing	No	No retake
Annual GPA < 2.00	Academic Probation until GPA > 2.00	Probation	No	No retake
No Previous Course Failure				
1 didactic course failure* within a quarter	ACRT	Probation	PS-1: IPPE Summer Block #1 PS-2,3: APPE Block #1	Pass: Promote Fail: Dismissal
2 didactic course failures* within a quarter	ACRTs	Probation	PS-1: IPPE Summer Block #1 PS-2,3: APPE Blocks #1 and #2	Pass: Promote Fail one or both: Dismissal
3 or more didactic course failures* within a quarter	Dismissal	Dismissed	No	N/A
Previous Course Failure(s) Not Yet Remediated				
One ACRT scheduled but not yet taken, and one additional course failure occurs in a future quarter in the same academic year	An additional ACRT (maximum 2 in any academic year) or (at student's option) ETDG	Probation; Student advised another course failure likely means dismissal	PS-1: IPPE Summer block #1 PS-2,3: APPE Block #1	ACRTs: Pass: Promote Fail one or both: Dismissal
One ACRT scheduled but not yet taken, and more than one didactic course failure occurs in future quarter(s) in the same academic year	Dismissal	Dismissed	No	N/A
Two ACRTs scheduled but not yet taken, and one or more additional didactic course failures occur in future quarter(s) in the same academic year	Dismissal	Dismissed	No	N/A
Previous Course Failure(s) Already Remediated Through ACRT				
Student has successfully remediated the failed course(s), and one additional didactic course failure occurs in a quarter in any academic year	ACRT	Probation	PS-2,3: APPE Block #1	Pass: Promote Fail: Dismissal
Student has successfully remediated the failed course(s), one ACRT is scheduled but not yet taken and an additional didactic course failure occurs in any academic year	Dismissal	Dismissed	No	N/A
Students on Extended Track with Delayed Graduation				
Student has not yet successfully remediated the failed course(s), and one or more additional didactic course failure(s) occur in the same quarter in the same academic year	ETDG	Probation	PS-1: Repeat failed courses next academic year	Pass: Promote Fail: Dismissal

Circumstance	Usual Recommendation	Academic Status	Retake Course	Action Following Retake
			PS-2,3: Repeat failed courses next academic year	
Student has not yet successfully remediated the failed course(s), and one or more additional didactic course failure(s) occur in a subsequent quarter in the same academic year	Dismissal	Dismissed	No	N/A
Student has successfully remediated the failed course(s), and one additional didactic course failure occurs in a quarter in any academic year	ACRT	Probation	PS-1: IPPE Summer Block #1 PS-2,3: APPE Block #1	Pass: Promote Fail: Dismissal
Student has successfully remediated the failed course(s), one ACRT is scheduled but not yet taken and an additional didactic course failure occurs in any academic year	Dismissal	Dismissed	No	N/A
Experiential Rotations				
All experiential rotations passed	Promote	Good Standing	No	No retake
Annual GPA < 2.00	Academic Probation until GPA > 2.00	Probation	No	No retake
1 IPPE experiential rotation failure (with no or one previous didactic course failure)	IPPE vacation block or APPE block #1	Probation	Repeat in same Summer if possible; if not, repeat as APPE block #1	Pass: Promote Fail: Dismissal
1 IPPE experiential rotation failure (with two or more previous didactic course failure)	Dismissal	Dismissed	No	N/A
2 IPPE experiential rotation failures	Dismissal	Dismissed	No	N/A
1 APPE experiential rotation failure	APPE Block #7	Probation	Retake failed APPE at another site	Pass: Promote Fail: Dismissal
2 APPE experiential rotation failures	Dismissal	Dismissed	No	N/A

*Course failure = Final grade "F" for a course; WF (Withdrawal Failure) is not considered

ACRT = Alternate Course Re-Take. The academic policy allows a student to take a maximum of two ACRTs in any academic year.

ETDG = Extended track program with delayed graduation. Student repeats the course(s) in the next academic year. From the MWU Catalog: "In general, a student is allowed to go through an extended program only once.

Appeal Process

Following notification of a decision for dismissal or extended track program, a student may appeal, in writing, the decision to the Dean. Such appeals must be received by the Dean within three working days after the student is officially notified of the dismissal or extended track program decision. A narrative explaining the basis for the appeal must accompany the request. An appeal must be based on one or more of the following premises:

1. Bias of one or more members of the Student Promotion and Graduation Committee
2. Material, documentable information not available to the Committee at the time of its initial decision

3. Procedural error

The Dean will review the appeal request and decide if there is sufficient information to convene a meeting of the Student Promotion and Graduation Committee, which would be asked to provide a recommendation to the Dean on the appeal request. Once a decision is made to convene a Committee meeting, the student requesting the appeal shall be notified in writing (i.e., by email) by the Office of the Dean at least two working days in advance of the scheduled Committee meeting in which the student's appeal will be heard. The student will be offered an opportunity to appear before the Committee (in person, virtually or by telephone) in order to present their case. In such instances, the student shall inform the Office of the Dean, in writing at least 24 hours prior to the meeting, of their desire to appear before the Committee or their intent to waive this right. If the student chooses to appear before the Committee, this prerogative extends to the involved student only and not to any other individuals.

Following the meeting, the Committee submits their recommendation to the Dean. Upon receipt of the Committee's recommendation, the Dean makes the final decision on all appeals.

The student must attend all didactic classes in which they are registered until the appeal process is complete. Students registered in an experiential rotation course may be placed on a mandatory leave of absence until the appeal process is finalized.

Dismissal

A student may be dismissed from the College for academic reasons upon the recommendation of the Student Promotion and Graduation Committee to the Dean or the Dean's designee. The decision to dismiss a student is based on the determination by the Committee that the student has not satisfactorily demonstrated the aptitude to successfully achieve the standards and requirements set forth in the academic policies and professional expectations for the program.

Introductory and Advanced Pharmacy Practice Experience Failures in the Pharm.D. Program

A withdrawal failure (WF) may only be granted to a student with the approval of the Director of Experiential Education if the student is receiving a failing grade at the time of withdrawal and if the withdrawal is due to extenuating health or personal issues. A student who is requested by the preceptor or site administration to permanently leave the IPPE/APPE site for unprofessional behavior or patient safety issues may be issued a grade of "F".

When a student either fails or receives a "WF" in an APPE, the student must petition the Student Promotion and Graduation Committee within 3 calendar days after the last day of the APPE to retake the same type of APPE. If granted, the timing of the retake will be subject to availability of sites as determined by the Office of Experiential Education.

Extended Program in the Pharm.D. Program Problems may arise that may necessitate the restructuring of a student's academic course load. Accordingly, an individual's academic course load may be reduced so that the student enters what is termed an extended track repeat year program. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by one additional year. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met:

1. *Personal hardship.* If a student is experiencing unusual stresses in life and a decreased academic load could alleviate added stress, the student may petition the Student Promotion and Graduation Committee through the Dean or the Dean's designee for an extended program. This petition is not automatically granted and is approved only in exceptional circumstances. The Committee is responsible for evaluating the petition and

submitting a recommendation concerning a student's request for an extended program to the Dean or the Dean's designee. The Dean or the Dean's designee is responsible for reviewing and assessing the Committee's recommendation, and then notifying the student of a decision.

2. *Academic.* As described above, a student ending an academic year with an annual GPA of less than 2.000 will be required to repeat courses or pharmacy practice experiences from that year in which "F" grades were received. A student may be placed in an extended track program for academic reasons through a decision by the Dean or the Dean's designee upon recommendation of the Student Promotion and Graduation Committee. A student placed on an extended track program for academic reasons is automatically placed on academic probation and may not be returned to good academic standing until the student successfully completes all course that were unsatisfactory and are required for graduation.

If a student is placed on an extended program, such action does not modify or limit the Committee's actions for dismissal. In general, a student is allowed to go through an extended program only once. Thus, the student may be dismissed for academic reasons while on an extended program.

A student who completes the extended program is defined as a reentering student as the student reenters the next professional year curriculum and resumes a normal course load. A reentering student must achieve a cumulative grade point average of 2.000 at the end of each quarter to continue at the College. A reentering student who earns a grade of "F" in one course or pharmacy practice experience may be dismissed from the College.

Pharmacy Curriculum Outcomes Assessment

Each student is required to complete the Pharmacy Curriculum Outcomes Assessment (PCOA) examination during their PS-2 year or PS-3 summer quarter as scheduled by the College and prior to starting their Advanced Pharmacy Practice Experiences (APPEs).

Technology

Students must have a laptop computer to use in various learning activities. Specific specifications of the required computer will be available to students at the time of the admissions interview.

Time Limit for Completion of Coursework

The maximum allotted time for completion of the professional portion of the Pharm.D. program is five calendar years.

Student Administrative Policies

Absence Reporting Procedure

In the event of illness, personal emergency, personal incapacitation, or other exceptional problem of a serious nature that causes a student to be absent from a session requiring mandatory attendance, a student must notify one of the following: CPDG Dean's Office, CPDG department head, or course director. To be excused from an APPE, the student must notify their preceptor, in addition to the OEE. Assuming that there is a legitimate reason for a student's absence, the CPDG Dean's Office will contact by telephone or email the course directors of the courses in which the student will miss an examination, quiz, or graded assignment, or will send an e-mail to all appropriate course directors that confirms in writing that the student will be absent, the reason for the absence, the courses from which the student will be absent, and the date(s) of the student's absence. This will be done as soon as possible (within 24 hours) after the student has notified CPDG. If a student fails to follow this procedure, the student is held responsible for satisfying the official University procedure for obtaining an excused absence. The latter procedure is more stringent than the College policy. Unexcused absences may result in course failure.

Requesting an Excused Absence for Personal/Professional Reasons

The College recognizes that a student may desire to be excused from class or rotation for non-illness, non-emergency-related reasons. An Absence Request Form must be completed at least two weeks prior to the day that the student wishes to be excused. Forms are available from the CPDG Dean's Office and [online](#). Completion of the form by the student does not imply the student is excused from classes until the course director of the affected courses approve the request.

Advanced Standing in the Pharm.D. Program

All requests for advanced standing by newly admitted, transfer, or enrolled students are processed on a course-by-course basis by the Student Promotion and Graduation Committee. The Dean's Office provides staff support for such evaluations. To request such consideration, a student should submit a letter of request to the Dean in which the student lists a course(s) previously taken at an accredited college or university which might be similar in content to a professional course(s) that the student is scheduled to take. The student must also provide an official course description(s) and a syllabus(syllabi) of the course(s) previously taken. For some courses, a student may be required to take a comprehensive challenge exam. All requests must be submitted at least three weeks prior to the start of the course being considered. For APPEs, all requests must be submitted at least six months prior to the first day of the specific APPE that the student is seeking to be excused from. The decision of the Committee is forwarded to the Dean as a recommendation to either grant or deny advanced standing. Advanced standing will be considered for coursework taken in which a letter grade of "C" or better has been earned. A "C-" letter grade is not acceptable for advanced standing consideration.

No advanced standing will be awarded for professional pharmacy coursework completed at a foreign college of pharmacy.

Attendance

Upon acceptance to the Midwestern University College of Pharmacy, students are expected to devote their entire efforts to the academic curriculum. The College actively discourages employment that will conflict with a student's ability to perform while didactic and experiential courses are in session and will not take outside employment or activities into consideration when scheduling classes, examinations, reviews, field trips, or individual didactic or experiential course functions. Class attendance is mandatory for all students during experiential courses (IPPEs and APPEs). Refer to the student IPPE or APPE manual for specific details regarding this policy. Class Standing (For students entering the Doctor of Pharmacy Program in or after Summer 2021:) To achieve the status of a second-year student in the professional program (PS-II), students must have successfully completed all requisite PS-I courses and earned an annual didactic GPA of 2.00. To achieve the status of a third-year student in the professional program (PS-III), students must have successfully completed all requisite PS-II courses, the two introductory rotations, and earned an annual didactic GPA of 2.00.

For students who entered the Doctor of Pharmacy Program through Fall 2020:

To achieve the status of a second-year student in the professional program (PS-II), students must have successfully completed all requisite first-year courses and earned an annual GPA of 2.000. To achieve the status of a third-year student in the professional program (PS-III), students must have successfully completed all requisite second-year courses and earned an annual GPA of 2.000

College Resolution on Comprehensive Assessment in Coursework

Whereas, comprehensive assessment in coursework promotes learning retention and accountability, and whereas, these qualities prepare students for practical experience, be it resolved that the CPDG faculty encourage the use of comprehensive assessment tools throughout its curriculum.

Dean's List

Following each quarter, the Midwestern University College of Pharmacy recognizes students who have distinguished themselves by achieving a GPA of 3.500 or better for the quarter. This applies for full-time didactic coursework only. Students who are currently undergoing an extended program are not eligible for the Dean's List.

Disciplinary Probation

Disciplinary probation may be designated for student acts of professional misconduct as defined in Appendices 2 and 4 of the Midwestern University Student Handbook. Disciplinary probation is not noted on the transcript but is kept in a secure file in the Office of Student Services.

Faculty Mentorship

The Midwestern University College of Pharmacy assigns a faculty mentor to students in each entering class whose role is to assist with academic and nonacademic advising, counseling, and enrichment. In addition to these faculty mentors, the CPDG Dean, Associate Deans, and the Dean of Students, as well as other faculty members and professional staff, are also available to assist students.

During orientation, mentors meet their new students who will mentor them throughout the program. Faculty mentors act as liaisons between the faculty and students. Their responsibilities include:

1. Serving as the student's mentor and academic/professional counselor;
2. Monitoring the academic progress and professional growth of the student;
3. Assisting the student in seeking academic and personal counseling services provided by the institution;
4. Serving as an advocate for the student;
5. Counseling the student during their selection of a career within the pharmacy profession;
6. Providing feedback on select assignments in certain courses or co-curricular experiences.

Grades

Letter grades corresponding to the level of achievement in each course are assigned based on the results of examinations, required coursework, and, as applicable, other criteria established for each course. Individual faculty have the prerogative to use a plus/minus letter grading system or a whole letter grading system. Elective courses may be offered as pass/fail upon the direction of the faculty. The following letter grades are not used for any courses: "C-", "D+", "D", or "D-".

Courses are recorded in terms of quarter hour(s) of credit. Multiplication of the credits for a course by the numeric value for the grade awarded gives the number of quality points earned for a course. Dividing the total number of quality points earned in courses by the total number of credits in those courses gives the grade point average.

Grades reported as "W", "WF", and "P" are recorded on a student's permanent record but are not used in the calculation of a student's grade point average. Similarly, a grade of "I" or "IP" may be assigned and is used only when special/extenuating circumstances exist (e.g., prolonged illness, family crisis, etc.), which prevent a student from completing the necessary course requirements on time in order to receive a grade.

Any request for an extension to complete course or APPE requirements must be approved first by the course director responsible for the course or APPE.

Following successful repetition of the course, the permanent record of the student will be updated to indicate that the failing grade has been successfully corrected.

If a student repeats a course, the course is entered twice in the permanent record of the student. The grade earned each time in the course is recorded, but only the most recent grade is used in the computation of the

student's cumulative grade point average. When a course is repeated, the student can earn any grade that is within the grading scale of the course. If a student receives an "F" grade in a course, that grade will be recorded on their transcript. This deficiency may be corrected as recommended by the Student Promotion and Graduation Committee. The decision to permit a student to repeat the course rests with the department offering the course and the Committee.

Grade and Quality Point Scale for Students Admitted in Fall 2008 or Thereafter

Grade	Quality Points (per credit)	Comments
A	4.000	-
A-	3.670	-
B+	3.330	-
B	3.00	-
B-	2.670	-
C+	2.330	-
C	2.000	-
F	0.000	-
I	0.000	An Incomplete (I) grade may be assigned by an instructor when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 calendar days starting from the last day of final examinations for the quarter. In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with notice to the Registrar.
IP	0.000	An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.
P	0.000	Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of "P" is counted toward credit hour accruals for graduation but does not affect GPA calculations.
F	0.000	Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of "F" is counted toward credit hour accruals as attempted but not completed. Grade of "F" is calculated into the GPA (quality points are lowered due to unsuccessful course completion).
W	0.000	Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
WF	0.000	Withdrawal/Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the Program/School. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
AU	0.000	This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.
AP		This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement (AP) is applied toward credit hour accruals, but is not counted in the GPA calculation.

Graduation Honors in the Pharm.D. Program

Graduation honors are awarded to candidates for the full-time Pharm.D. degree who have distinguished themselves by virtue of high academic achievement while enrolled in the professional program at Midwestern University. Only grades from academic courses taken at the University will be included in determining graduation

honors. Only didactic courses are included in the calculation of cumulative grade point for graduation honors. Students who receive a failing grade in any course (including APPEs) will not be eligible for graduation honors regardless of their GPA.

Didactic Course

Grade Point Average	Graduation Honor
> 3.900	Summa cum laude
3.750 - 3.899	Magna cum laude
3.500 - 3.749	Cum laude

Last Day to Add/Drop Module Classes or IPPE and APPE Courses

A pharmacy student will be able to add a module prior to the start of the first meeting of a module. After that, a student may add a module only with the consent of the course director.

A pharmacy student will be able to drop a module prior to the start of the second meeting of a module. In this case, when a student drops a module, the student's transcripts will not reflect registration in the module at all.

After the start of the second class meeting of a module, a student may withdraw from a module only with the approval of the course director and the Dean's Office. In this case, when a student receives approval to withdraw, a "W" grade will be entered onto the student's transcript after the course number and name of the course.

IPPE and APPE courses may be added or dropped only with the approval of the Office of Experiential Education and the CPDG Dean's Office.

Leave of Absence from APPEs in the Pharm.D. Program Refer to the University policy. Requests for leaves from the Pharm.D. Program must be in writing and forwarded to the Dean by:

For students who entered the Doctor of Pharmacy Program through Fall 2020: September 1 of the PS-III year.

For students entering the Doctor of Pharmacy Program in or after Summer 2021: June 1 of the PS-III year.

No requests for leaves of absence will be permitted after this time except for extraordinary circumstances. Once APPEs have started, the minimum approved length of time for a leave of absence is six months.

Liaison Committees

Student-Faculty Liaison Committees meet as needed during the academic year and serve as a forum for the interchange of ideas, suggestions, and discussion of academic problems of interest to students enrolled in the various years of the College program. The chair of each committee is appointed by the Dean.

It is the responsibility of newly elected student liaisons to meet with the chair of the Student Faculty Liaison Committee at the start of the academic year prior to the first meeting of the committee. The faculty chair will review the role of the committee and the responsibilities of the student liaisons to their class. A committee is formed for each professional class at the College and is composed of the following members:

1. Student-Faculty Liaison Committee, First Year: Course directors for each of the courses for any given quarter, the Chairs of the Departments of Pharmaceutical Sciences and Pharmacy Practice, and two students elected by the first-year class. Two PS-I student volunteers will be appointed during the first week of classes to serve as interim liaisons until official elections are held.
2. Student-Faculty Liaison Committee, Second Year: Course directors for each of the courses for any given quarter, the Chairs of the Departments of Pharmaceutical Sciences and Pharmacy Practice, and two students elected by the second-year class.

3. Student-Faculty Liaison Committee, Third Year: Course directors for each of the courses for any given quarter, the Chairs of the Departments of Pharmaceutical Sciences and Pharmacy Practice, the Director of Experiential Education, and two students elected by the third-year class.

Awards and Scholarships

American Institute of the History of Pharmacy Award

An award is presented to a student who has best carried out some type of pharmaco-historical activity (e.g. historical essay, collecting books or artifacts, historical photography, historical hobbies, etc).

Bernard B. Brody-Rho Pi Phi Jurisprudence Scholarship

This award is given to a graduating student with outstanding performance in the CPDG Pharmacy Law and Ethics course.

Beverly Talluto Memorial Scholarship

This award is presented to a second-year student who possesses solid leadership, interpersonal and academic skills and a demonstrated commitment to community service.

Chicago Pharmacy Association Foundation (CPhA) Award

This award is presented to a second-year student in good academic standing who is a member of CPhA and/or SNPhA and an underrepresented minority student. May consider a student who belongs to a different pharmacy association.

College of Pharmacy, Downers Grove 20th Anniversary Award

This award is presented to a second-year student in good academic standing who demonstrates financial need and commitment to the College as demonstrated by service to the College or University, their fellow students, and the profession.

College of Pharmacy, Downers Grove Legacy Admission Scholarships

Scholarships are awarded to newly admitted pharmacy students with exemplary pre-pharmacy coursework performance. Student recipients are selected by the Admissions Committee.

College of Pharmacy, Downers Grove Alumni Council Award

This award and honorary membership in the CPDG Alumni Council is presented to a third-year student in good academic standing who exemplifies collaboration within the University community and has a demonstrated record of volunteering to serve others in need.

College of Pharmacy, Downers Grove Departmental Awards

Four awards are presented each year to graduating students who are deemed outstanding in medicinal chemistry, pharmaceuticals, pharmacy administration, and pharmacotherapeutics.

College of Pharmacy, Downers Grove Scholars in Leadership and Diversity Scholarship

A scholarship is presented to an underrepresented minority second-year or third-year student who has demonstrated leadership capabilities and a commitment to enhancing diversity in the pharmacy field.

College of Pharmacy, Downers Grove Student Professionalism Scholarship

A scholarship is presented to either a first, second, third or graduating student who has been nominated by the faculty for exemplary professional behavior in all interactions with faculty, staff and colleagues and has a commitment to the profession through leadership activities in pharmacy organizations.

CVS Foundation Pharmacy Student Scholarships

Scholarships are awarded each year to students who are in good academic standing and have demonstrated interest in community pharmacy practice. Special consideration is given to bilingual students.

CVS Foundation Spanish Pharmacy Student Scholarship

Scholarships are awarded each year to an underrepresented minority student who has a demonstrated interest in community pharmacy practice. Special consideration is given to students proficient in Spanish and are bilingual.

Dhingra Family Award

This award is presented to a second-year student who exemplifies professionalism and leadership. The recipient of this award is selected by the Dean of the College of Pharmacy.

George Lee Prize

This scholarship is granted to a graduating student who has demonstrated academic excellence, leadership and sustained participation in community service or societal improvement programs.

IACP Scholarship

This scholarship is presented to a graduating student who has volunteered or works in community or pharmacy setting, demonstrates counseling & communication skills, and is interested in pursuing a career in independent community pharmacy.

Illinois Council of Health-System Pharmacists Student Award

This award is presented to a third-year student with a past history of employment in a hospital or hospital-affiliated facility. The nominee must be an Illinois resident or Illinois high school graduate and an active ICHP member.

Illinois Pharmacists Association Leadership Award

This award is presented to a third-year student who has done the most to promote the profession of pharmacy through leadership and involvement in professional associations. Student must be an active IPhA member.

Iqbal Atcha Scholarship

This award is presented to a second or third-year student who is a hardworking parent that is raising a family and has demonstrated financial need. The recipient of this award must also be in good academic standing.

John and Angie Dik Scholarship

This scholarship is awarded to a student who has entrepreneurial spirit and leadership qualities. The recipient of this scholarship must be in good academic standing and in financial need.

Kroger Company Scholarship

This scholarship will be presented to a pharmacy student belonging to an underserved minority group as defined by the Health Resources and Services Administration (HRSA), including American Indian and Alaska Native communities, Black/African American, Hispanic/Latino, and Native Hawaiian/Pacific Islander. This scholarship will be awarded on a competitive basis taking into account past academic performance; commitment to diversity, leadership and community service; and demonstrated financial need, with consideration to applicants who are first-generation college students.

Leadership Admission Scholarships

These awards are given to newly admitted pharmacy students with a cumulative GPA of 3.25 or higher and demonstrated leadership as described in their admissions application. The recipients of these awards are selected by the Admissions Committee.

Manek Award

This award is presented to a hardworking second-year student who demonstrates extreme financial need. The award shall be used for tuition, books or defrayment of costs associated with school.

Mary Anne Clinton Memorial Scholarship for Community Service

This award is given each year to a third-year or a graduating student who has demonstrated concern for social consciousness or global well being. This caring philosophy can be demonstrated through active participation in alcohol and drug awareness, animal rights, educational advancement of inner city or otherwise under-served populations, and environmental awareness.

Mary Beth Stanaszek Memorial Scholarship

This scholarship is awarded to an outstanding second or third-year pharmacy student who has assumed leadership in pharmacy student organizations or student government, has demonstrated a commitment to patient care and patient education, and has financial need.

Mayur Vipin Smita Shah Family Scholarship for Entrepreneurs in Pharmacy

A monetary award is presented to a College of Pharmacy, Downers Grove student who has an interest in entrepreneurship and innovation in pharmacy.

Meijer Drug Company Scholarship

This award is given each year to a student interested in entering chain community pharmacy.

Meijer Drug Company Diversity Scholarship

This scholarship will be presented to a pharmacy student belonging to an underserved minority group as defined by the Health Resources and Services Administration (HRSA), including American Indian and Alaska Native communities, Black/African American, Hispanic/Latino, and Native Hawaiian/Pacific Islander. This scholarship will be awarded on a competitive basis taking into account past academic performance; commitment to diversity, leadership and community service; and demonstrated financial need, with consideration to applicants who are first-generation college students.

Milo Gibaldi Award for Research and Scholarship

A monetary award is presented to a graduating student with an outstanding record of achievement in research and/or scholarly activity.

National Association of Chain Drug Stores (NACDS) Foundation Scholarship

A scholarship is awarded to a student who is in good academic standing with demonstrated interest in pursuing a career in community pharmacy.

Optio Rx

An award will be given to students who currently have an interest in innovation and incubation of ideas that advance the practice of pharmacy and patient engagement, as described in a one to two-page essay. Recipients must have cum GPA of 3.25 or higher and have completed their second year.

Osmond Lewis Memorial Award

This memorial scholarship is presented to a second or third-year underrepresented minority student who is in good academic standing and demonstrates, by their involvement in activities since beginning at College of Pharmacy, Downers Grove, that they have a strong commitment to community outreach.

Paula Giometti Memorial Scholarship

This scholarship is awarded to a graduating student in good academic standing with demonstrated financial need. The award winner should have a history of helping others and be known as an especially congenial spirit to all peers, faculty and others.

Professor Anil Gulati Award

This award will be given to a graduating student and must have conducted research at Midwestern University that has led to at least two research presentations at the annual "Ken Suarez Research Day" during their academic tenure at College of Pharmacy, Downers Grove.

Rachel M. and Willard C. Schmidt Scholarship

The scholarship will be given to a deserving Downers Grove-based second-year student with demonstrated financial need, who has an interest in geriatrics, is a Chicago Cubs fan and who has demonstrated a commitment to community service.

Viatrix Excellence in Pharmacy Award

This award is given to a graduating student who has performed well professionally and academically, with special emphasis on the provision of drug information services.

Walgreens Diversity and Inclusion Excellence Award

This scholarship is awarded to a student who embraces diversity and is engaged in efforts to promote diversity and inclusion initiatives on campus.

Walgreen Multilingual Scholarship

This scholarship is awarded to a student who is fluent speaking in one or more languages in addition to English with an interest in community pharmacy.

Wolters Kluwer Award of Excellence in Clinical Communication

This award is given to an outstanding student who has demonstrated superior verbal and written clinical communication skills.

Faculty

Pharmaceutical Sciences Faculty

Shridhar V. Andurkar, Ph.D.

Auburn University
School of Pharmacy
Department Chair and Professor

Shaifali Bhalla, Ph.D.

University of Illinois at Chicago
College of Pharmacy
Associate Dean and Associate Professor

Seema Briyal, Ph.D.

All India Institute of Medical Sciences
Research Assistant Professor

Robert L. Chapman, Ph.D.

The Ohio State University
College of Pharmacy
Associate Professor

Mitchell R. Emerson, Ph.D.

University of Kansas Medical Center
School of Medicine
Dean and Professor

Elizabeth M. Langan, M.D.

Case Western Reserve University
School of Medicine
Adjunct Instructor

Karen M. Nagel-Edwards, Ph.D., FAPhA

Purdue University
School of Pharmacy and Pharmaceutical Sciences
Associate Professor

Robin M. Zavod, Ph.D., FAPhA

University of Kansas
College of Pharmacy
Professor

Pharmacy Practice Faculty

Regina C. Arellano, Pharm.D., BCPS

University of Illinois at Chicago
College of Pharmacy
Associate Professor

Sally A. Arif, Pharm.D., BCPS, BCCP

University of Kansas
College of Pharmacy
Professor

Jill S. Borchert, Pharm.D., BCPS, BCACP, FCCP

University of Michigan
College of Pharmacy
Vice Chair and Professor

Susan Cornell, Pharm.D., B.S., CDCES, FAPhA, FADCES

Midwestern University
College of Pharmacy
Associate Director of Experiential Education and
Adjunct Professor

Brian T. Cryder, Pharm.D., BCACP, CACP

Ohio Northern University
College of Pharmacy
Professor

Lea E. dela Peña, Pharm.D., BCPS

University of Illinois at Chicago
College of Pharmacy
Associate Professor

Jennifer J. D'Souza, Pharm.D., BC-ADM, CDCES

Midwestern University
College of Pharmacy
Professor

Margaret A. Felczak, Pharm.D., BCPS

University of Illinois at Chicago
College of Pharmacy
Assistant Professor

Brooke L. Griffin, Pharm.D., BCACP

Massachusetts College of Pharmacy & Health Sciences
Vice Chair and Professor

Spencer E. Harpe, Pharm.D., Ph.D., MPH, FAPhA

The Ohio State University
College of Pharmacy
Professor

Linda Haase, R.Ph.

University of Illinois at Chicago College of Pharmacy
Experiential Site Specialist
Adjunct Assistant Professor

Anna Kabakov, Pharm.D., MBA, BCPS

Midwestern University
College of Pharmacy
Associate Professor

Denise M. Kolanczyk, Pharm.D., BCPS

Butler University
College of Pharmacy and Health Sciences
Associate Professor

Kathy E. Komperda, Pharm.D., BCPS

University of Illinois at Chicago
College of Pharmacy
Professor

Mary W. Lee, Pharm.D., BCPS, FCCP

University of the Sciences in Philadelphia
Philadelphia College of Pharmacy and Science
Vice President and Professor

Kelly A. Lempicki, Pharm.D., BCPS

Butler University
College of Pharmacy and Health Sciences
Associate Professor

Amy A. Lullo, B.S.

University of Illinois at Chicago
College of Pharmacy
Director of Experiential Education and Adjunct
Associate Professor

Jennifer L. Mazan, Pharm.D.

University of Illinois at Chicago
College of Pharmacy
Professor

Andrew Merker, Pharm.D., BCPS, BCIDP, AAHIVP

Midwestern University
College of Pharmacy
Associate Professor

Milena M. Murray, Pharm.D., M.Sc., BCIDP, AAHIVP, FCCP

University of Science in Philadelphia
Philadelphia College of Pharmacy
Associate Professor

Klodiana Myftari, Pharm.D., BCACP

University of Illinois at Chicago
College of Pharmacy
Assistant Professor

Paul O'Donnell, Pharm.D, BCPS, BCCCP, FCCM

University of Colorado Health Sciences Center
School of Pharmacy
Associate Professor

Gwen Pais, Ph.D.

University of Illinois at Chicago
College of Pharmacy
Research Assistant Professor

Lisa Palmisano, Pharm.D., BCACP

University of Illinois at Chicago
College of Pharmacy
Associate Professor

Jaini Patel, Pharm.D., BCACP

University of Illinois at Chicago
College of Pharmacy
Associate Professor

Jennifer Phillips, Pharm.D., BCPS, FCCP, FASHP

University of Illinois at Chicago
College of Pharmacy
Professor

Radhika S. Polisetty, Pharm.D., BCIDP, BCPS AQ-ID, AAHIVP, FIDSA

University of Kentucky
College of Pharmacy
Associate Professor

Ana C. Quinones-Boex, Ph.D., M.S., FAPhA

Purdue University
School of Pharmacy and Pharmaceutical Sciences
Professor

Julio A. Rebolledo, Pharm.D., BCPS, AE-C, BC-ADM

University of Illinois at Chicago
College of Pharmacy
Assistant Professor

Nathaniel J. Rhodes, Pharm.D., M.Sc., BCPS, AQ-ID

University of Florida
College of Pharmacy
Associate Professor

Marc H. Scheetz, Pharm.D., M.Sc., BCPS, AQ-ID, FCCP, FCP

Butler University
College of Pharmacy and Health Sciences

Infectious Disease Fellowship Director,
Pharmacometrics Center of Excellence Director and
Professor

**Christine Schumacher, Pharm.D., BCPS, BCACP,
BCCP, BC-ADM, CDCES, FCCP**

University of Michigan
College of Pharmacy
Postgraduate Year Two Ambulatory Care Residency
Program Director and Professor

Amanda N. Seddon, Pharm.D., BCOP, BCPS

University of Illinois at Chicago
College of Pharmacy
Associate Professor

Carrie A. Sincak, Pharm.D., BCPS, FASHP

University of Illinois at Chicago
College of Pharmacy
Associate Dean for Clinical Affairs and Professor

Damienne Souter, M.S. Ed., MBA

Northern Illinois University
Assistant to the Dean
Adjunct Instructor

Timothy J. Todd, Pharm.D., FPPAG

Midwestern University
College of Pharmacy
Professor

Tran H. Tran, Pharm.D., BCPS

University of North Carolina
Eshelman School of Pharmacy
Associate Professor

Kathleen M. Vest, Pharm.D., BCACP, CDCES, FCCP

Albany College of Pharmacy
Professor

Sheila K. Wang, Pharm.D., BCPS, BCIDP

The Ohio State University
College of Pharmacy
Postgraduate Year Two Infectious Disease Residency
Program Director and Associate Professor

Jeffrey T. Wieczorkiewicz, Pharm.D., BCPS

Midwestern University
College of Pharmacy
Associate Professor

Susan R. Winkler, Pharm.D., BCPS, FCCP

University of Illinois at Chicago
College of Pharmacy
Department Chair, Postgraduate Year One Community
Pharmacy
Residency Program Coordinator and Professor

Courses

BIOCD 1554: Biochemistry I

This course emphasizes principles and concepts of structure-function relationships in major biomolecules and human metabolism. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy.

Credits 2.5

BIOCD 1555: Biochemistry II

This course emphasizes human nutrition along with cell and molecular biology. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy.

Credits 3.5

BIOCD 1556: Biochemistry I

This course emphasizes principles and concepts of structure-function relationships in major biomolecules and human metabolism. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy.

Credits 2.5

BIOCD 1557: Biochemistry II

This course emphasizes human nutrition along with cell and molecular biology. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy.

Credits 3.5

CORED 1500B: Interprofessional Healthcare Communications

This course will introduce first year pharmacy, medical, dental medicine and optometry students to the fundamental principles of effective communication in the healthcare setting. The course introduces the principles of interpersonal, nonverbal, motivational communication, cultural awareness, and selected barriers to effective communication.

Credits 1.0

CORED 1599B: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

CORED 1599B: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines and introduce the One Health concept. It will also provide students from different health professions the opportunity to interact with one another and with simulated patients. This collaboration will promote communication using a team-based approach to care for humans, animals, and the environment.

Credits 1.0

CORED 1699B: Interprofessional Education II

This course will provide students, working in interprofessional teams, opportunities to learn and provide integrated, patient-centered care in the development of therapeutic care plans using a team-based approach. Active learning techniques and interprofessional learning will be used to enhance the education of learners to effectively engage in problem solving and communication activities that address current health related issues in the care of humans, animals, and the environment.

Credits 1.0

Prerequisites

CORED 1599B Interprofessional Education I

CORED 1699B: Interprofessional Education II

This course provides students, working in interprofessional teams, opportunities to learn and provide integrated, patient-centered care in the development of therapeutic care plans using a team-based approach. Active learning techniques, interprofessional learning, and clinical simulation will be used to enhance the education of learners to effectively engage in problem solving and communication activities that address current health related issues in the care of humans, animals, and the environment.

Credits 1.0

Prerequisites

CORED 1599B Interprofessional Education

MICRD 1520: Introductory Immunology & Biologies

This course presents basic aspects of the body's defense mechanisms. Current advances in immunotherapy and immunoprophylaxis are emphasized. The role the immune system plays in rejection of organ transplants, autoimmunity, and hypersensitivity are also discussed.

Credits 2.0

MICRD 1521: Introduction to Immunology and Biologies

This course presents basic aspects of the body's defense mechanisms. Current advances in immunotherapy and immunoprophylaxis are emphasized. The role the immune system plays in rejection of organ transplants, autoimmunity, and hypersensitivity are also discussed.

Credits 2.0

MICRD 1620: Infectious Diseases and Their Etiologic Agents

This is an integrated course that consists of didactic lectures, "bug quizzes," and homework based on online self-study assignments. A basic knowledge of infectious agents and clinical microbiology is provided so that students can understand etiological agents, relevant diseases, and the clinical signs and symptoms of those diseases based on the organ system. Emphasis is placed on understanding the interaction between the host and pathogenic microorganisms including epidemiology.

Credits 3.0

MICRD 1622: Infectious Disease and Their Etiologic Agents

This course is an integrated course that consists of didactic lectures, "bug quizzes", and homework based on on-line "self-study" assignments. A basic knowledge of the infectious agent and clinical microbiology is provided so that students can understand the infectious agents, relevant diseases, and the clinical signs and symptoms of those diseases based on the organ-system. Emphasis is placed on understanding the interaction between the host and pathogenic microorganisms.

Credits 3.0

PHARD 1420: Medical Spanish

This elective will provide the student with the vocabulary necessary to understand and converse in the fields of medicine and health care in Spanish. It will focus on communication with a Spanish-speaking patient, as well as understanding cultural attitudes that may impact medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations. Students will develop cooperative learning and effective group dynamic skills necessary to accomplish course goals.

Credits 2.0

Prerequisites

Students must pass a prerequisite oral and written basic Spanish language evaluation prior to course registration. Two years of high school or college Spanish.

PHARD 1651: Pharmacology I

This three-course sequence explores the pharmacologic actions of the major classes of drugs acting on the autonomic, cardiovascular, gastrointestinal, immune, endocrine, and central nervous systems. The major classes of drugs associated with the chemotherapy of microbial (bacteria, viral, fungal) and parasitic diseases are also described. Other topics discussed include, principles of antimicrobial therapy, drugs acting on blood and blood-forming organs, vitamins, as well as principles of toxicology, receptor theory, and dose response.

Credits 2.5

Prerequisites

[BIOCD 1554](#) Biochemistry I, [BIOCD 1555](#) Biochemistry II, and concurrent enrollment in [PSCID 1621](#) Chemical Principles of Drug Action I

PHARD 1652: Pharmacology II

This three-course sequence explores the pharmacologic actions of the major classes of drugs acting on the autonomic, cardiovascular, gastrointestinal, immune, endocrine, and central nervous systems. The major classes of drugs associated with the chemotherapy of microbial (bacteria, viral, fungal) and parasitic diseases are also described. Other topics discussed include, principles of antimicrobial therapy, drugs acting on blood and blood-forming organs, vitamins, as well as principles of toxicology, receptor theory, and dose response.

Credits 1.5

Prerequisites

[PHARD 1651](#) Pharmacology I and concurrent enrollment in [PSCID 1622](#) Chemical Principles of Drug Action II

PHARD 1653: Pharmacology III

This three-course sequence explores the pharmacologic actions of the major classes of drugs acting on the autonomic, cardiovascular, gastrointestinal, immune, endocrine, and central nervous systems. The major classes of drugs associated with the chemotherapy of microbial (bacteria, viral, fungal) and parasitic diseases are also described. Other topics discussed include, principles of antimicrobial therapy, drugs acting on blood and blood-forming organs, vitamins, as well as principles of toxicology, receptor theory, and dose response.

Credits 2.0

Prerequisites

[PHARD 1651](#) Pharmacology I and concurrent enrollment in [PSCID 1623](#) Chemical Principles of Drug Action III

PHIDD 1501: Integrated Sequence I

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 5.5

Prerequisites

[PHYSD 1524](#) Human Physiology I, [PHYSD 1525](#) Human Physiology II, [BIOCD 1556](#) Biochemistry I, [BIOCD 1557](#) Biochemistry II

PHIDD 1502: Integrated Sequence II

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 4.5

Prerequisites

[PHIDD 1501](#) Integrated Sequence I

PHIDD 1503: Integrated Sequence III

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 4.5

Prerequisites

[PHIDD 1502](#) Integrated Sequence II

PHIDD 1504: Integrated Sequence IV

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 4.5

PHIDD 1605: Integrated Sequence V

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 5.0

PHIDD 1606: Integrated Sequence VI

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 4.5

Prerequisites

[PHIDD 1605](#) Integrated Sequence V

PHIDD 1607: Integrated Sequence VII

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 4.5

Prerequisites

[MICRD 1620](#) Infectious Diseases and Their Etiologic Agents

PHIDD 1608: Integrated Sequence VIII

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 5.0

Prerequisites

[PHIDD 1607](#) Integrated Sequence VII

PHIDD 1609: Integrated Sequence IX

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 5.0

Prerequisites

[PHIDD 1608](#) Integrated Sequence VIII

PHIDD 1710: Integrated Sequence I X

The Integrated Sequence is a series of 10 modular 5-10 week courses that utilizes an organ-systems approach. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics to teach the safe, effective, and evidence-based use of drugs.

Credits 5.0

Prerequisites

[PHIDD 1609](#) Integrated Sequence IX

PHIDD 1710 : Integrated Sequence X

This course sequence develops students' knowledge, skills, abilities, behaviors and attitudes necessary to demonstrate self-awareness, leadership, innovation and entrepreneurship, and professionalism through their life-long career. Continuing professional development model (CPD) will be the framework for the course. Required and elective activities may be offered and students will record and reflect on these activities in their electronic portfolio.

Credits 5.0

PHYSD 1522: Human Physiology I

This course provides core knowledge of physiology in order to understand normal body function and to acquire the ability to analyze and interpret the immediate and long term compensatory responses to common disease states of excitable cells, cardiovascular, and nervous systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.5

PHYSD 1523: Human Physiology II

This course provides core knowledge of physiology required by students of pharmacy in order to understand normal function and to acquire the ability to analyze and interpret the immediate and long-term compensatory responses to common disease states of the respiratory, renal, acid-base, endocrine, and gastrointestinal systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.5

PHYSD 1524: Human Physiology I

This course provides core knowledge of physiology in order to understand normal body function and to acquire the ability to analyze and interpret immediate and long-term compensatory responses to common disease states of excitable cells, cardiovascular, and nervous systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.5

PHYSD 1525: Human Physiology II

This course provides core knowledge of physiology in order to understand normal body function and to acquire the ability to analyze and interpret immediate and long-term compensatory responses to common disease states of respiratory, renal, acid-base, endocrine, reproductive and gastrointestinal systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.5

PPRAD 1301: Special Project or Research

This course provides an opportunity for PS-I, PS-II, and PS-III students to work with individual faculty mentors on projects of variable scope. Included activities could be library, laboratory, and/or survey-type research; assistance with syllabus development of future elective courses; or other activities agreed on between the student and mentor and approved by the appropriate department chair. A maximum of 4 credits of PPRAD or PSCID 1301 may be applied toward elective requirements for the Pharm.D. degree.

Credits 1.0-3

PPRAD 1302: Community Service

Through hands-on involvement in a community service project and discussions with community leaders, the student will be better prepared to provide pharmaceutical care to a wider segment of the population. The issues addressed may include understanding the role of physical or mental disabilities, cultural sensitivity, language barriers, and alternative medicines in providing quality pharmaceutical care. This course includes development and implementation of a service project or participation in a project currently sponsored by the University. Permission of the instructor is required.

Credits 1.0

PPRAD 1303: Principles of Acute Care

The course emphasizes the skills and knowledge necessary to perform well in an acute care general medicine setting. The student will practice problem based learning in a team learning environment to devise appropriate therapeutic plans for disease states and clinical controversies commonly encountered in acute care practice. Instructors will utilize patient cases and interactive teaching methods.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1761](#) Pharmacotherapeutics V For those entering the Doctor of Pharmacy Program in or after Summer 2021: Concurrent enrollment in [PHIDD 1607](#) Integrated Sequence VII

PPRAD 1306: Introduction to Veterinary Pharmacy

This course introduces students to issues associated with the provision of veterinary-focused pharmacy services. It provides a foundation for pharmacists interested in providing care for species other than humans. Pharmacology, unique physiologic and pharmacokinetic differences will be emphasized. Management and prevention of common diseases will be discussed.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1663](#) Pharmacotherapeutics IV, [PPRAD 1681](#) Clinical Skills I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1607](#) Integrated Sequence VII, [PPRAD 1572](#) Clinical Skills Development II

PPRAD 1309: Pediatric Pharmacotherapy

This course focuses on issues related to the treatment and care of pediatric patients. By following mock patients from birth through their adolescence, the elective is designed to introduce the students to common illnesses, drug delivery systems used for pediatric patients, and current controversies in pediatric care. Students have the opportunity to select topics of interest that will be covered in a portion of the course.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1532](#) Pharmacotherapeutics I, [PPRAD 1661](#) Pharmacotherapeutics II, [PPRAD 1662](#) Pharmacotherapeutics III, [PPRAD 1663](#) Pharmacotherapeutics IV For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1502](#) Integrated Sequence II, [PHIDD 1504](#) Integrated Sequence IV, Concurrent enrollment in [PHIDD 1608](#) Integrated Sequence VIII

PPRAD 1314: Women's Health

This elective concentrates on specific issues related to the optimal delivery of women's health care. Topics covered include sex related differences in treating women, wellness and prevention over the female life span, diseases uniquely affecting women, and pharmacotherapy and psychosocial aspects of women's health. Interactive lectures, group projects, and workshops will educate students about practical considerations in the health care of women. Community service will be encouraged.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1661](#) Pharmacotherapeutics II For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1504](#) Integrated Sequence IV, Concurrent enrollment in PHIDD 1506 Integrated Sequence VI

PPRAD 1315: Advanced Clinical Diabetes Management

This course will focus on advanced topics in the management of diabetes. Students will have the opportunity to practice application of the material through patient cases and hands-on experiences. Topics discussed will include a review of the classifications and diagnosis of diabetes, non-insulin and insulin therapies, cardiovascular outcomes trials and updates in primary literature, complications of diabetes, and a review of the devices available in the management of diabetes.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III, [PPRAD 1681](#) Clinical Skills For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1504](#) Integrated Sequence IV, [PPRAD 1574](#) Clinical Skills Development IV

PPRAD 1316: Advanced Infectious Diseases

This course expands students' knowledge and skills in area of infectious diseases and antimicrobial pharmacotherapy. A case-based approach will be utilized to foster an interactive learning experience. Students will build upon their current knowledge of infectious diseases and antimicrobials through case-related discussions and debates utilizing current guidelines, evidence-based primary literature, institutional policies and procedures, and expert opinions from guest facilitators.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1663](#) Pharmacotherapeutics IV For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1607](#) Integrated

PPRAD 1322: Tobacco Cessation

This course will enable students to gain the knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco. Topics of emphasis include epidemiology of tobacco use, principles of addiction, methods of assisting patients with quitting, and available tobacco cessation products.

Credits 1.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1532](#) Pharmacotherapeutics I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PPRAD 1573](#) Clinical Skills Development III

PPRAD 1324: Spirituality and Health

Students enhance their patient care skills by examining the relationship between spirituality and health, learn the role of spirituality and religion in health care, and examine issues related to the interaction between spiritual outlook and compliance with medical treatment. Faculty and expert guest presenters lead discussions on how belief systems affect patients' perception of health, necessary spiritual considerations in patient care, therapeutic dilemmas produced by spiritual beliefs, and resources available to the health care team.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1504](#) Integrated Sequence IV

PPRAD 1327: Therapeutic Issues in Critical Care

In the critical care setting, pharmacists have a unique role on multidisciplinary medical teams through their expertise in pharmacotherapeutics, pharmacokinetics, and drug information. This course introduces students to select disease states encountered in the intensive care unit setting as well as current controversies regarding the clinical management of these patients. The therapeutic management of critically ill patients will be discussed using case study, interactive methods and lecture formats.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: For those entering the Doctor of Pharmacy Program in or after Summer 2021: Concurrent enrollment in [PHIDD 1609](#) Integrated Sequence IX

PPRAD 1338: Epidemiologic Investigation of Medication Use

Epidemiologic methods are increasingly used for questions not easily found answered through traditional clinical research pathways (e.g., randomized trials). Given health care's emphasis on evidence-based practice and population-based care, a firm understanding of epidemiologic principles is necessary for health care professionals. This course will introduce students to the population-oriented approach of epidemiology and its application to examining the use and effects of medications, as well as practice evaluation.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1671](#) Evidence-Based Pharmacy Practice For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PPRAD 1561](#) Pharmacy Practice Development and Evaluation I

PPRAD 1339: Anticoagulation in Clinical Practice

This course will explore anticoagulation in both the inpatient and outpatient settings through lecture, patient cases, and hands-on experiences. Students will develop a working knowledge and skill set required to provide pharmacy-managed anticoagulation services. Topics will include a review of currently available oral and parenteral anticoagulants as well as those in the pipeline, consideration in anticoagulation for special populations, and advanced therapeutic issues.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1503](#) Integrated Sequence III

PPRAD 1341: Advanced Cardiology

This course reviews cardiovascular diseases for those students interested in cardiology. New topics (e.g. valvular disease) will be introduced, and previous topics discussed in required courses will be further augmented. Topics will focus on diagnostics and procedures, cardiovascular pharmacotherapy, and the role of the cardiology pharmacist. Active learning strategies and high-fidelity simulations are highly employed.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III, [PPRAD 1681](#) Clinical Skills I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1502](#) Integrated Sequence II, [PHIDD 1503](#) Integrated Sequence III, [PPRAD 1676](#) Clinical Skills Development VI

PPRAD 1342: Postgraduate Training Opportunities for Pharmacists

The course reviews pharmacists' postgraduate training and educational opportunities with a focus on pharmacy residencies. Topics include, but are not limited to, the residency application process, types of available residencies and fellowships, and careers available after postgraduate training. Students will also be expected to create a high-quality curriculum vitae (CV) and letter of intent, which are standard components of most residency and fellowship application packages.

Credits 1.0

PPRAD 1345: Statistical Applications in Pharmacy Research

This course will help students develop the skills necessary to analyze data, interpret the results of those analyses, and produce meaningful reports based on those analyses. Statistical techniques related to describing and visualizing data, comparing means, nonparametric tests, categorical data analysis, and regression modeling procedures will be presented in the course. Students will also be introduced to basic principles of data management, such as data file preparation, data manipulation, and recoding.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1671](#) Evidence-Based Pharmacy Practice For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PPRAD 1561](#) Pharmacy Practice Development and Evaluation I

PPRAD 1347: Clinical Trials in Ambulatory Care

This course focuses on reviewing the clinical trial data that support therapeutic recommendations in ambulatory care. Students in this course critically evaluate clinical trials to reinforce skills in interpreting clinical trial data, practice applying the data to patient cases to support therapeutic recommendations, and identifying the rationale for current therapeutic guidelines.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1502](#) Integrated Sequence II, [PHIDD 1503](#) Integrated Sequence III, [PHIDD 1504](#) Integrated Sequence IV, [PPRAD 1561](#) Pharmacy Practice Development and Evaluation I

PPRAD 1348: Health Promotion and Disease Prevention Across Cultures

This course is focused on health promotion and disease prevention in ethnic minority groups. The goal of the course is to augment concepts taught in the curriculum with an emphasis on developing critical thinking skills in the setting of a health screening event in the community. Active learning techniques will be used during class time to improve students' knowledge, skills, and self-confidence when: (1) performing cardiometabolic screenings (e.g. cholesterol, blood glucose, and blood pressure) and (2) providing cross-cultural communication with patients' from different backgrounds.

Credits 1.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1662](#) Pharmacotherapeutics III, [PPRAD 1681](#) Clinical Skills I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1504](#) Integrated Sequence IV, PHIDD 1551 Cultural Care and Public Health, [PPRAD 1574](#) Clinical Skills Development IV

PPRAD 1350: Pharmacy and Therapeutics Competition

This course is offered in conjunction with the annual AMCP Foundation Pharmacy and Therapeutics Competition. Using the AMCP formulary dossier format and a drug selected annually by AMCP, students prepare a drug monograph, develop an economic model and make a formulary recommendation for this designated drug for a simulated health plan. Students work in teams of four and present their recommendations to a judging panel. The top scoring team progress to the national competition.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PPRAD 1671](#) Evidence-Based Pharmacy Practice For those entering the Doctor of Pharmacy Program in or after 2021: [PPRAD 1561](#) Pharmacy Practice Development and Evaluation I

PPRAD 1510: Professional Development I

This course sequence develops students' knowledge, skills, abilities, behaviors and attitudes necessary to demonstrate self-awareness, leadership, innovation and entrepreneurship, and professionalism through their life-long career. Continuing professional development model (CPD) will be the framework for the course. Required and elective activities may be offered and students will record and reflect on these activities in their electronic portfolio.

Credits 1.0

PPRAD 1521: Healthcare Systems

This course describes elements and forces affecting the organization, delivery, and financing of healthcare services in the United States. It explores major historical, social, economic, and political aspects of our health care system. Strengths and weaknesses of the system, including possible options for mitigating the latter, are identified.

Credits 3.0

PPRAD 1525: Fundamentals of Pharmacy Practice

This course introduces the student to the practice of pharmacy through lectures and workshops and provides them with skills needed to participate in future Introductory Pharmacy Practice Experiences. Students learn basic principles of pharmacy practice necessary for any practice setting, including pharmacy law, informatic, prescription process, and the pharmacists' patient care process. Students will be expected to demonstrate patient interviewing and drug information skills.

Credits 3.0

PPRAD 1531: Introductory to Pharmacy Practice Experience (IPPE): Community

This experience provides an opportunity for students to participate in basic patient care and distribution services in a community practice setting. Students gain experience in community pharmacy practice including the areas of professional communication, drug information, patient counseling for prescription and OTC medications, medication distribution, extemporaneous products, and application of federal and state pharmacy laws.

Credits 6.0

Prerequisites

[PPRAD 1525](#) Fundamentals of Pharmacy Practice, [PSCID 1518](#) Pharmaceutical Calculations, concurrent enrollment or previous completion of [PPRAD 1532](#) Pharmacotherapeutics I

PPRAD 1532: Pharmacotherapeutics I

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 3.0

Prerequisites

None

PPRAD 1533: Pharmacy Practice Development & Evaluation I

This is the first course in a two-course series introducing students to concepts important for the development and evaluation of pharmacy practice activities. Students will be exposed to basic management principles relevant to pharmacy practice and will learn about the role of quality improvement in both health care and pharmacy practice. In addition to traditional lectures, students will participate in hands-on activities and group projects related to management and quality topics.

Credits 3.0

Prerequisites

[PPRAD 1521](#) Healthcare Systems and [PPRAD 1525](#) Fundamentals of Pharmacy Practice

PPRAD 1543: Institutional Pharmacy Practice

This course will introduce students to the practice of pharmacy in institutional settings, focusing on hospitals and other acute care settings. The use, preparation, and regulations of parenteral medications will be described. In addition, students will learn about other issues surrounding the safe and effective use of medications in the institutional setting, including medication safety, accreditation and computerized physician order entry systems.

Credits 2.5

PPRAD 1544: Introduction to Health-Systems Pharmacy Practice

This course will introduce students to the practice of pharmacy in health-systems. The use, preparation, distribution and regulation of medications will be described. An emphasis will be placed on sterile compounding and hazardous parenteral medications. Students will be introduced to health-system pharmacy operations, the medication use system, technology (including electronic health records) and principles of safety and quality.

Credits 2.5

PPRAD 1551: Cultural Care and Public Health

In this course students will understand concepts related to cultural care through self-awareness, cultural sensitivity, cultural adaptability, and respect for others. This course will also focus on key public health concepts related to the role of pharmacists in disease prevention, health promotion, and health equity. Concepts of health disparities, social determinants of health, health belief models, health literacy, and constructs of culturally competent care will be introduced to promote equitable healthcare delivery for all.

Credits 1.0

PPRAD 1552: Pharmacy-Based Immunization Delivery

In this course, students will develop the knowledge and skills necessary to provide immunization services to patients through self-study, lectures, workshop and simulation. The course incorporates APhA's Pharmacy-Based Immunization Delivery certificate training program to prepare students to provide care that promotes disease prevention and public health.

Credits 1.0

PPRAD 1560: Healthcare Systems

This course describes elements and forces affecting the organization, delivery, and financing of health care services in the United States. It explores major historical, social, economic, and political aspects of our health care system. Strengths and weaknesses of the system, including possible options for mitigating the latter, are identified.

Credits 3.0

PPRAD 1561: Pharmacy Practice Development and Evaluation I

This four-course sequence is designed to help students develop the knowledge and skills necessary to maximize patient and population health outcomes through the management of pharmacy services and promotion of optimal medication use. Students will participate in hands-on activities and complete projects related to literature evaluation, pharmacy service development, practice evaluation, and quality improvement.

Credits 2.5

PPRAD 1571: Clinical Skills Development I

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 3.5

PPRAD 1572: Clinical Skills Development II

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 3.5

Prerequisites

[PPRAD 1571](#) Clinical Skills Development I

PPRAD 1573: Clinical Skills Development III

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PPRAD 1572](#) Clinical Skills Development II and concurrent enrollment in [PHIDD 1501](#) Integrated Sequence I

PPRAD 1574: Clinical Skills Development IV

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PHIDD 1502](#) Integrated Sequence II, [PPRAD 1573](#) Clinical Skills Development III, and concurrent enrollment in [PHIDD 1504](#) Integrated Sequence IV

PPRAD 1610: Professional Development II

This course sequence develops students' knowledge, skills, abilities, behaviors and attitudes necessary to demonstrate self-awareness, leadership, innovation and entrepreneurship, and professionalism through their life-long career. Continuing professional development model (CPD) will be the framework for the course. Required and elective activities may be offered and students will record and reflect on these activities in their electronic portfolio.

Credits 1.0

PPRAD 1632: Pharmacy Practice Development and Evaluation II

This four-course sequence is designed to help students develop the knowledge and skills necessary to maximize patient and population health outcomes through the management of pharmacy services and promotion of optimal medication use. Students will participate in hands-on activities and complete projects related to literature evaluation, pharmacy service development, practice evaluation, and quality improvement.

Credits 3.0

Prerequisites

[PPRAD 1561](#) Pharmacy Practice Development and Evaluation I

PPRAD 1633: Pharmacy Practice Development and Evaluation III

This four-course sequence is designed to help students develop the knowledge and skills necessary to maximize patient and population health outcomes through the management of pharmacy services and promotion of optimal medication use. Students will participate in hands-on activities and complete projects related to literature evaluation, pharmacy service development, practice evaluation, and quality improvement.

Credits 3.0

Prerequisites

[PPRAD 1632](#) Pharmacy Practice Development and Evaluation II

PPRAD 1634: Pharmacy Practice Development and Evaluation IV

This four-course sequence is designed to help students develop the knowledge and skills necessary to maximize patient and population health outcomes through the management of pharmacy services and promotion of optimal medication use. Students will participate in hands-on activities and complete projects related to literature evaluation, pharmacy service development, practice evaluation, and quality improvement.

Credits 2.0

Prerequisites

[PPRAD 1633](#) Pharmacy Practice Development and Evaluation III

PPRAD 1651: IPPE Longitudinal I

A three course sequence designed to provide students opportunities to communicate, deliver patient care, and develop drug information skills. Emphasis will be placed on the changing needs of patients and ensuring continuity of care. These courses will not only provide students opportunities to apply didactic knowledge to patients, but will also cultivate their affective attributes necessary to becoming a caring pharmacist.

Credits 2.0

Prerequisites

[PPRAD 1525](#) Fundamentals of Pharmacy Practice and concurrent enrollment in or previous completion of [PPRAD 1671](#) Evidence-Based Pharmacy Practice

PPRAD 1652: IPPE Longitudinal II

A three course sequence designed to provide students opportunities to communicate, deliver patient care, and develop drug information skills. Emphasis will be placed on the changing needs of patients and ensuring continuity of care. These courses will not only provide students opportunities to apply didactic knowledge to patients, but will also cultivate their affective attributes necessary to becoming a caring pharmacist.

Credits 1.0

Prerequisites

[PPRAD 1651](#) IPPE Longitudinal I, [PPRAD 1671](#) Evidence-Based Pharmacy Practice

PPRAD 1653: IPPE Longitudinal III

A three course sequence designed to provide students opportunities to communicate, deliver patient care, and develop drug information skills. Emphasis will be placed on the changing needs of patients and ensuring continuity of care. These courses will not only provide students opportunities to apply didactic knowledge to patients, but will also cultivate their affective attributes necessary to becoming a caring pharmacist.

Credits 1.5

Prerequisites

[PPRAD 1652](#) IPPE Longitudinal II, [PPRAD 1661](#) Pharmacotherapeutics II, and [PPRAD 1662](#) Pharmacotherapeutics III

PPRAD 1656: Introductory Pharmacy Practice Experience: Health Systems (1/2 of the class)

This course will provide students an opportunity to participate in basic patient care and distribution services in a health system setting. Students will gain practical experience in health systems including the areas of professional and patient communication, drug information, medication distribution systems, sterile product preparation, interprofessional activities, and application of federal and state pharmacy laws.

Credits 3.0

Prerequisites

[PPRAD 1543](#) Institutional Pharmacy Practice and [PSCID 1518](#) Pharmaceutical Calculations

PPRAD 1661: Pharmacotherapeutics II

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 4.5

Prerequisites

Concurrent enrollment in [PHARD 1651](#) Pharmacology I and [PSCID 1621](#) Chemical Principles of Drug Action I

PPRAD 1662: Pharmacotherapeutics III

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 5.5

Prerequisites

Concurrent enrollment in [PHARD 1652](#) Pharmacology II and [PSCID 1622](#) Chemical Principles of Drug Action II

PPRAD 1663: Pharmacotherapeutics IV

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 4.5

Prerequisites

[MICRD 1622](#) Infectious Diseases and their Etiologic Agents; concurrent enrollment in [PHARD 1653](#) Pharmacology III and [PSCID 1623](#) Chemical Principles of Drug Action III

PPRAD 1670: IPPE Clinical Skills & Simulation I

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 3.0

Prerequisites

[PPRAD 1532](#) Pharmacotherapeutics I, [PPRAD 1661](#) Pharmacotherapeutics II, and concurrent enrollment in [PPRAD 1662](#) Pharmacotherapeutics III

PPRAD 1671: Evidence-Based Pharmacy Practice

This course introduces students to the knowledge and skills necessary to construct sound pharmacotherapeutic recommendations via thorough retrieval and evaluation of best available clinical evidence. The course will focus on developing primary literature evaluation and critical thinking skills, so that students can use evidence to formulate drug information responses and patient care recommendations. Individual and group activities will include literature searching, literature evaluation, problem solving skills, and practice of verbal and written communication skills.

Credits 3.0

PPRAD 1675: Clinical Skills Development V

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PPRAD 1574](#) Clinical Skills Development IV and concurrent enrollment in [PHIDD 1605](#) Integrated Sequence V

PPRAD 1676: Clinical Skills Development VI

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PPRAD 1675](#) Clinical Skills Development V and concurrent enrollment in [PHIDD 1606](#) Integrated Sequence VI

PPRAD 1677: Clinical Skills Development VII

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PHIDD 1607](#) Integrated Sequence VII, [PPRAD 1676](#) Clinical Skills Development VI, concurrent enrollment in [PHIDD 1608](#) Integrated Sequence VIII and [PHIDD 1609](#) Integrated Sequence IX

PPRAD 1681: Clinical Skills I

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 2.0

Prerequisites

None

PPRAD 1682: Clinical Skills II

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 2.5

Prerequisites

None

PPRAD 1683: Clinical Skills III

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 2.5

Prerequisites

None

PPRAD 1691: Introductory Pharmacy Practice Experience-Community

This experience provides an opportunity for students to participate in basic patient care and distribution services in a community practice setting. Students gain experience in community pharmacy practice including the areas of professional communication, drug information, patient counseling for prescription and OTC medications, medication distribution, extemporaneous products, and application of federal and state pharmacy laws.

Credits 6.0

PPRAD 1692: Introductory Pharmacy Practice Experience-Health Systems/Institutional

This experience provides students an opportunity to participate in basic patient care and distribution services in a health system setting. Students will gain practical experience in health systems including the areas of professional and patient communication, medication order processing and verification, medication reconciliation, medication error prevention, medication distribution systems, sterile product preparation, hospital formulary management, interprofessional activities, and application of federal and state pharmacy laws.

Credits 6.0

PPRAD 1714: Professional Development IV

This course sequence develops students' knowledge, skills, abilities, behaviors and attitudes necessary to demonstrate self-awareness, leadership, innovation and entrepreneurship, and professionalism through their life-long career. Continuing professional development model (CPD) will be the framework for the course. Required and elective activities may be offered and students will record and reflect on these activities in their electronic portfolio.

Credits 1.0

PPRAD 1741: Pharmacy Practice Development & Evaluation II

This second course of a two-course series continues the introduction of students to concepts important for the development and evaluation of pharmacy practice activities. Students will learn basic skills necessary to evaluate programs and services. These skills will build on earlier principles related to evaluation of drug therapy outcomes at the patient level by translating that thinking to economic, clinical, and humanistic outcomes at the population level. Various evaluation and outcome frameworks will be introduced.

Credits 3.0

Prerequisites

[PPRAD 1533](#) Pharmacy Practice Development and Evaluation I

PPRAD 1753: Introductory Pharmacy Practice Experience: Clinical (1/3 of the class)

This course allows students to practice clinical skills in pharmacy through practical experiences, practice simulations, and workshops. Site visits to various clinical environments allow the student to experience and apply lessons learned from didactic courses in patient care settings.

Credits 3.5

Prerequisites

[PPRAD 1656](#) Introductory Pharmacy Practice Experience: Health Systems, [PPRAD 1671](#) Evidence-Based Pharmacy Practice

PPRAD 1761: Pharmacotherapeutics V

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 5.0

Prerequisites

Concurrent enrollment in [PSCID 1761](#) Principles of Drug Action I

PPRAD 1762: Pharmacotherapeutics VI

Pharmacotherapeutics is a sequence of six courses emphasizing the safe, effective, and evidence-based use of drugs. The course sequence focuses on the pharmacists' patient care process through lectures with embedded individual and group learning activities.

Credits 4.0

Prerequisites

Concurrent enrollment in [PSCID 1762](#) Principles of Drug Action II

PPRAD 1771: IPPE Clinical Skills & Simulation II

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PPRAD 1670](#) IPPE Clinical Skills & Simulation I, [PPRAD 1662](#) Pharmacotherapeutics III, and concurrent enrollment in [PPRAD 1663](#) Pharmacotherapeutics IV

PPRAD 1772: IPPE Clinical Skills & Simulation III

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 3.0

Prerequisites

[PPRAD 1662](#) Pharmacotherapeutics III, [PPRAD 1663](#) Pharmacotherapeutics IV, and concurrent enrollment in [PPRAD 1761](#) Pharmacotherapeutic V

PPRAD 1773: Pharmacy Law & Ethics

This course examines laws and ethical concepts controlling and guiding the practice of pharmacy in Illinois and the United States. Detailed analyses will be made of the following regulations and associated rules: Illinois Pharmacy Practice Act; Illinois Controlled Substances Act; Federal Controlled Substances Act; and Federal Food, Drug and Cosmetic Act. Additional state and federal laws affecting pharmacy practice will be considered as appropriate. Case law and scenarios will be used to facilitate student learning.

Credits 3.0

Prerequisites

[PPRAD 1525](#) Fundamentals of Pharmacy Practice

PPRAD 1774: Pharmacy Law & Ethics

This course provides an examination of the laws and ethical concepts guiding pharmacy practice. Relevant federal, state, and local laws, as well as their associated rules and regulations, affecting pharmacy practice will be reviewed in detail. Case law and scenarios will be discussed in class to assist students in applying the law to practice.

Credits 3.0

PPRAD 1775: Clinical Pharmacokinetics

This course focuses on the application of pharmacokinetic principles for the purpose of optimizing drug therapy. Lectures and workshops are used to teach the following principles: effects of disease and drug-drug interactions on pharmacokinetic parameters, initial loading and maintenance dosage regimen calculations, dosage adjustment for linear and nonlinear drugs, interplay between pharmacokinetics and pharmacodynamics, effects of extracorporeal elimination, and interpretation of serum drug concentrations. This is an integrated course that consists of didactic lectures, "bug quizzes," and homework based on online self-study assignments. A basic knowledge of infectious agents and clinical microbiology is provided so that students can understand etiological agents, relevant diseases, and the clinical signs and symptoms of those diseases based on the organ system. Emphasis is placed on understanding the interaction between the host and pathogenic microorganisms including epidemiology.

Credits 3.0

Prerequisites

[PSCID 1520](#) Pharmaceutical Calculations, [PSCID 1533](#) Introduction to Biopharmaceutics and Pharmacokinetics

PPRAD 1778: Clinical Skills Development VIII

In this course sequence, students will develop knowledge and skills necessary for the practice of pharmacy through lectures, workshop, simulation, self-assessment, and self-study. Using principles of patient assessment, physical assessment, medication administration, and knowledge of drug therapy and devices, these courses develop skills in communication and optimization of drug therapy through the steps of the pharmacists' patient care process.

Credits 2.0

Prerequisites

[PPRAD 1677](#) Clinical Skills Development VII

PPRAD 1780: PharmD Seminar

This course reviews pharmacy-related concepts and clinical reasoning skills to prepare them to be successful, competent pharmacists that are able to contribute meaningfully to the profession. Topics covered will systematically address the NAPLEX® Competency Statements: Obtain, Interpret, or Assess Data, Medical, or Patient Information; Identify Drug Characteristics; Develop or Manage Treatment Plans; Perform Calculations; Compound, Dispense, or Administer Drugs, or Manage Delivery Systems; Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality. This four-course sequence is designed to help students develop the knowledge and skills necessary to maximize patient and population health outcomes through the management of pharmacy services and promotion of optimal medication use. Students will participate in hands-on activities and complete projects related to literature evaluation, pharmacy service development, practice evaluation, and quality improvement.

Credits 4.0

Prerequisites

Concurrent enrollment in APPE coursework

PPRAD 1781: Advanced Pharmacy Practice Experience-Community

This experience will enable students to develop their skills and gain experience in a variety of patient-oriented services in community practice. In addition to medication dispensing, students will focus on drug therapy assessment and intervention, identification, resolution, and prevention of drug related problems, education, and communication with patients and other healthcare professionals. Students may participate in additional services such as extemporaneous compounding, administration of immunizations, health screenings, and medication therapy and disease state management.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1781: Clinical Skills IV

In this course sequence, students will integrate and apply knowledge and skills obtained throughout the curriculum to the practice of pharmacy. These courses develop skills in communication and in identifying and assessing drug therapy problems using principles of patient assessment, physical assessment, and knowledge of drug therapy and devices. Students will demonstrate these skills and apply drug therapy problem-solving strategies to the pharmacists' patient care process.

Credits 2.5

Prerequisites

Concurrent enrollment in [PPRAD 1761](#) Pharmacotherapeutics V

PPRAD 1782: Advanced Pharmacy Practice Experience-Health-Systems/Institutional

This practice experience will enable students to develop their skills and gain experience in institutional practice or other system of integrated pharmacy services. Emphasis is placed on systems to promote safe and effective medication use to optimize patient outcomes. In addition to medication order processing, preparation, and distribution, students will focus on drug-use decision-making processes, individual patient drug therapy monitoring, formulary management, and communication with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1784: Advanced Pharmacy Practice Experience-Ambulatory Care

This practice experience will enable students to develop their skills and gain experience related to practice in a specific clinical specialty. Emphasis will be placed on participating in an interprofessional healthcare team, drug therapy assessment and intervention, patient care activities, and monitoring of outcomes in various patient populations. In addition, students will participate in drug therapy interventions, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1785: Advanced Pharmacy Practice Experience-Patient Care

This practice experience will enable students to develop their skills and gain experience related to practice in a specific clinical specialty. Emphasis will be placed on participating in an interprofessional healthcare team, drug therapy assessment and intervention, patient care activities, and monitoring of outcomes in various patient populations. In addition, students will participate in drug therapy interventions, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1786: Advanced Pharmacy Practice Experience-Elective

This is an experience where students will gain an adequate breadth of knowledge, skills, and experiences specific to their chosen elective area. Pharmacy students may select from a list of electives with a variety of experiences such as an additional patient care elective (when available), industry, managed care pharmacy, academia, or pharmacy administration.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1787: Advanced Pharmacy Practice Experience-General Medicine/Acute Care

This practice experience will enable students to develop their skills and gain experience related to general medicine in an acute care setting. Emphasis is placed on participating in an interprofessional healthcare team, drug therapy assessment, patient care activities, and monitoring of outcomes in various patient populations. In addition, students will participate in drug therapy interventions, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required didactic coursework and 9 hours of electives

PPRAD 1793: Clinical Pharmacokinetics

This course focuses on the application of pharmacokinetic principles for the purpose of optimizing drug therapy. Lectures and workshops are used to learn the following principles: effects of disease and drug-drug interactions on pharmacokinetic parameters, initial loading and maintenance dosage regimen calculations, dosage adjustment for linear and nonlinear drugs, interplay between pharmacokinetics and pharmacodynamics, effects of extracorporeal elimination, and interpretation of serum drug concentrations.

Credits 3.0

Prerequisites

[PSCID 1531](#) Introduction to Biopharmaceutics and Pharmacokinetics, [PSCID 1518](#) Pharmaceutical Calculations

PPRAD 1802: Community Advanced Pharmacy Practice Experience

This practice experience will enable students to develop their skills and gain experience in a variety of patient-oriented services in community practice. In addition to medication dispensing, students will focus on drug therapy assessment and intervention, identification, resolution, and prevention of drug-related problems, education, and communication with patients and other healthcare professionals. Students may participate in additional services such as administration of immunizations, blood pressure screenings, and medication therapy and disease state management.

Credits 9.0

Prerequisites

Completion of all required courses and 8 credit hours of electives

PPRAD 1803: Hospital Advanced Pharmacy Practice Experience

This practice experience will enable students to develop their skills and gain experience in hospital practice or other system of integrated pharmacy services. Emphasis is placed on systems to promote safe and effective medication use to optimize patient outcomes. In addition to medication order processing, preparation, and distribution, students will focus on drug-use decision-making processes, individual patient drug therapy monitoring, formulary management, and communication with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required course and 8 credit hours of electives

PPRAD 1804: General Medicine Advanced Pharmacy Practice Experience

This practice experience will enable students to develop their skills and gain experience related to general medicine in an acute care setting. Emphasis is placed on participating in an interprofessional healthcare team, drug therapy assessment, patient care activities, and monitoring of outcomes in various patient populations. In addition, students will participate in drug therapy interventions, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required courses and 8 credit hours of electives

PPRAD 1805: Ambulatory Care Advanced Pharmacy Practice Experience

This practice experience will enable students to develop their skills and gain experience related to ambulatory care practice. Emphasis will be placed on participating in an interprofessional healthcare team, and sharing responsibility with patients, caregivers, and other healthcare professionals to achieve optimal drug therapy outcomes. In addition, students will participate in drug therapy assessment and intervention, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required courses and 8 credit hours of electives

PPRAD 1806: Clinical Specialty Advanced Pharmacy Practice Experience

This practice experience will enable students to develop their skills and gain experience related to practice in a specific clinical specialty. Emphasis will be placed on participating in an interprofessional healthcare team, drug therapy assessment and intervention, patient care activities, and monitoring of outcomes in various patient populations. In addition, students will participate in drug therapy interventions, identify drug related problems, develop therapeutic care plans, and effectively communicate with patients and other healthcare professionals.

Credits 9.0

Prerequisites

Completion of all required courses and 8 credit hours of electives

PPRAD 1807: Elective Advanced Pharmacy Practice Experience

This is an experience where students will gain an adequate breadth of knowledge, skills, and experiences specific to their chosen elective area. Pharmacy students may select from a list of electives with a variety of patient-care or non-patient care experiences such as an additional clinical specialty (when available), managed care pharmacy, academia, or pharmacy administration.

Credits 9.0

Prerequisites

Completion of all required courses and 8 credit hours of electives

PPRAD 1810: PharmD Seminar

This course provides the student an opportunity to review pharmacy-related concepts and clinical reasoning skills to prepare them to be successful, competent pharmacists that are able to contribute meaningfully to the profession. Topics covered will systematically address the NAPLEX® Competency Statements: Ensure Safe and Effective Pharmacotherapy and Health Outcomes; Safe and Accurate Preparation, Compounding, Dispensing, and Administration of Medications and Provision of Health Care Products.

Credits 4.0

Prerequisites

Concurrently enrolled in APPE coursework

PSCID 1301: Special Projects or Research

This course provides an opportunity for PS-I, PS-II, and PS-III students to work with individual faculty mentors on projects of variable scope. Included activities could be library, laboratory, and/or survey-type research; assistance with syllabus development of future elective courses; or other activities agreed on between the student and mentor and approved by the appropriate department chair. A maximum of 4 credits of PPRAD or PSCID 1301 may be applied toward elective requirements for the Pharm.D. degree.

Credits 1.0-3

PSCID 1302: Community Service

Through hands-on involvement in a community service project and discussions with community leaders, the student will be better prepared to provide pharmaceutical care to a wider segment of the population. The issues addressed may include understanding the role of physical or mental disabilities, cultural sensitivity, language barriers, and alternative medicines in providing quality pharmaceutical care. This course includes development and implementation of a service project or participation in a project currently sponsored by the University. Permission of the instructor is required.

Credits 1.0

PSCID 1305: Pharmacy: Its History and Heroes

This course begins with a general overview of pharmacy throughout history, with special emphasis placed on Illinois pharmacy and pharmacy associations. The course will end with student-led presentations on individuals who can be considered heroes in the profession and who have been instrumental in the adaptation of our health care system to provide access to quality health care.

Credits 2.0

PSCID 1370: Pharmaceuticals and Personal Care Products in the Environment

This course provides an understanding as to what can happen to the environment (personal and wildlife) in the presence of chemicals associated with pharmaceuticals and personal care products (PPCPs). This course focuses on identification of PPCP sources and entry points, removal strategies, as well as documented and potential cause/effect relationships between specific chemical products/byproducts and wildlife species. When relevant, potential cause/effect relationships between these chemical entities and human systems (e.g. reproductive system) will be explored.

Credits 1.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PSCID 1621](#) Chemical Principles of Drug Action I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PSCID 1523](#) Principles of Pharmaceutical Sciences

PSCID 1375: Vitamins, Minerals, and Nutritional Support

This course provides an overview of the mechanisms and therapeutic uses of fat- and water-soluble vitamins, antioxidants, macro- and micro-minerals, and enteral nutritional support products. Topics include the use of antioxidants, multi-vitamin choices, potential toxicity and drug interactions, as well as nutritional support/supplement selection for infants and adults. The mechanism-based approach used in this module allows the student pharmacist to more easily identify, organize, and recommend various therapeutic agents for a wide variety of patients.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PSCID 1622](#) Chemical Principles of Drug Action II For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PHIDD 1502](#) Integrated Sequence II, Concurrent enrollment in [PHIDD 1503](#) Integrated Sequence III

PSCID 1379: LGBTQI Considerations in the Provision of Healthcare

This course develops knowledge and skills to facilitate the provision of inclusive, compassionate and holistic patient centered care to members of the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI) community. Lecture topics include an introduction to LGBTQI terminology, culture and history, mental health and social service needs, and communication strategies. An emphasis on personal acknowledgement of knowledge/skills deficits may help to prevent health inequities for these populations in the future.

Credits 2.0

PSCID 1380: Cannabis for Healthcare Professionals

This course will provide future healthcare professionals a basic understanding of the endocannabinoid system and the related pharmacokinetics/pharmacodynamics of medicinal cannabis. The use of medicinal cannabis in the management of pain, anxiety, insomnia, epilepsy, PTSD, and chemotherapy induced nausea and vomiting will be discussed. Historical, legal, and ethical issues will also be discussed. Patient education points associated with adverse effects, as well as potential drug-cannabis and nutrient-cannabis interactions will be emphasized.

Credits 1.0

Prerequisites

[BIOCD 1556](#) Biochemistry I, [BIOCD 1557](#) Biochemistry II, [PHYSD 1524](#) Human Physiology I, [PHYSD 1525](#) Human Physiology II

PSCID 1382: Advanced Compounding

This laboratory-based course will expose students to more advanced compounding techniques, formulation/dosage forms, and equipment. Lecture topics will include compounding safety, legislation, accreditation, marketing, and sources of compounding information and supplies

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [PSCID 1519](#) Dosage Form Laboratory For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PSCID 1522](#) Dosage Forms Lab

PSCID 1383: Natural Products and Complementary & Integrative Health

Botanical dietary supplements are used by at least 1/3 of the population as a component of complementary and integrative health with mainstream medical practice. Health care professionals should develop knowledge and skills necessary to aid patients in making rational decisions about their use. This elective focuses on the utility of drugs from natural sources in practice today, and surveys the products of plants and animals, and various complementary modalities of medicine that impact health.

Credits 3.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: Concurrent enrollment or successful completion of [PHARD 1651](#) Pharmacology I For those entering the Doctor of Pharmacy Program in or after Summer 2021: [BIOCD 1556](#) Biochemistry I, [BIOCD 1557](#) Biochemistry II, Concurrent enrollment in [PHIDD 1501](#) Integrated Sequence I and [PHIDD 1502](#) Integrated Sequence II

PSCID 1384: Advanced Topics in Pharmacogenomics

This advanced topics course will provide an in-depth knowledge on the clinical application of pharmacogenomics. Students will deepen their understanding of how genetic differences impact drug therapy and be able to interpret pharmacogenomic data and testing results. Students are expected to read assigned papers before class and participate in class activities and group discussions. Assessment will be based on student presentations, in class activities, case studies, short papers, and take home worksheets.

Credits 2.0

Prerequisites

For those who entered the Doctor of Pharmacy Program in Fall 2016 through Fall 2020: [BIOCD 1554](#) Biochemistry I, [BIOCD 1555](#) Biochemistry II For those entering the Doctor of Pharmacy Program in or after Summer 2021: [PSCID 1523](#) Principles of Pharmaceutical Sciences

PSCID 1385: Self-Management in the Face of Different

The elective focuses on self-management during communication with patients diagnosed with disease states that limit their physical or mental abilities (e.g., stroke, paraplegia, quadriplegia, autism, physical deformity, learning disabilities). Implicit bias evaluation, as well as skill set development to facilitate self-management (compassion and empathy) will be emphasized. Expert panel presentations, mini-lectures and in-class activities. Student acknowledgement of personal deficits and bias may help to prevent healthcare inequities for these populations in the future.

Credits 1.0

PSCID 1517: Physical Pharmacy and Dosage Form Design

This course is designed to impart an understanding of the types and characteristics of pharmaceutical dosage forms, and the physico-chemical principles involved in design, development, formulation, preparation, and dispensing of dosage forms.

Credits 3.0

PSCID 1518: Pharmaceutical Calculations

This course provides an introduction to the practice of pharmacy with an emphasis on commonly encountered mathematical calculations that are essential to compounding and dispensing medications in subsequent pharmacy courses and a variety of pharmacy practice settings.

Credits 3.0

PSCID 1519: Dosage Form Laboratory

This course is focused on discussing and learning to prepare various extemporaneously compounded dosage forms, while understanding and fulfilling all legal requirements.

Credits 1.0

Prerequisites

[PSCID 1517](#) Physical Pharmacy and Dosage Form Design, [PSCID 1518](#) Pharmaceutical Calculations

PSCID 1520: Pharmaceutical Calculations

This course focuses on the pharmaceutical and clinical calculations that are critical to the safe and effective delivery of medications. The course prepares students to use calculations in pharmacy practice. The course covers calculations involving applications of concepts from arithmetic and algebra performed by pharmacists for compounding and dispensing of medications in a variety of practice settings.

Credits 3.0

PSCID 1521: Physical Pharmacy and Dosage Forms

This course is designed to impart an understanding of the types and characteristics of pharmaceutical dosage forms, and the physico-chemical principles involved in design, development, formulation, preparation, and dispensing of dosage forms.

Credits 3.0

PSCID 1522: Dosage Forms Lab

This course is focused on discussing and learning to prepare various extemporaneously compounded dosage forms, while understanding and fulfilling all legal requirements.

Credits 1.0

Prerequisites

[PSCID 1521](#) Physical Pharmacy and Dosage Forms, [PSCID 1520](#) Pharmaceutical Calculations

PSCID 1523: Principles of Pharmaceutical Sciences

This course showcases the foundational principles and roles of both biotechnology and pharmacogenomics as it relates to drug therapy selection for disease state management. An overview of the physicochemical properties of functional groups found in drug molecules is presented, including a drug structure evaluation process to predict the acid/base character, solubility contribution, biological target interactions, and metabolic transformations for each functional group.

Credits 2.5

Prerequisites

[BIOCD 1556](#) Biochemistry I and concurrent enrollment in [BIOCD 1557](#) Biochemistry II

PSCID 1531: Introduction to Biopharmaceutics and Pharmacokinetics

This course will discuss biopharmaceutics and pharmacokinetic parameters. Topics covered include but are not limited to: mathematical descriptions of time course of drug absorption, distribution, and elimination; physicochemical properties of drugs and relevant physiologic factors that affect drug absorption, distribution, metabolism, and excretion; relationship between drug concentration and clinical responses; pharmacokinetic variability caused by differences in body weight, age, sex, genetic factors, diseases, and drug interactions; and applications of pharmacokinetics and pharmaceutics to clinical situations.

Credits 3.5

Prerequisites

[PSCID 1517](#) Physical Pharmacy and Dosage Form Design, [PSCID 1518](#) Pharmaceutical Calculations

PSCID 1532: Introduction to Drug Structure Evaluation

This course provides a review of organic functional groups found in drug molecules and their properties. Heterocycles and amino acids are introduced as structural components of endogenous biomolecules and/or biological targets for drug action. As part of the drug structure evaluation process the acid/base properties, binding interactions possible with a biological target, and metabolic transformations for each functional group are presented. Significant emphasis will be placed on functional group interaction with amino acid side chains.

Credits 2.0

PSCID 1533: Introduction to Biopharmaceutics and Pharmacokinetics

This course will discuss biopharmaceutics and pharmacokinetic parameters. Topics covered include but are not limited to: mathematical descriptions of time course of drug absorption, distribution, and elimination; physicochemical properties of drugs and relevant physiologic factors that affect drug absorption, distribution, metabolism, and excretion; relationship between drug concentration and clinical responses; pharmacokinetic variability caused by differences in body weight, age, sex, genetic factors, diseases, and drug interactions; and applications of pharmacokinetics and pharmaceutics to clinical situations.

Credits 3.5

Prerequisites

[PSCID 1521](#) Physical Pharmacy and Dosage Forms

PSCID 1621: Chemical Principles of Drug Action I

Concepts of drug-target interactions and structure-activity relationships are discussed for major drug classes. Classification is based on a drug's mechanism of action at its biological target. Routes of drug metabolism, drug transport and the predication of drug-drug, drug-disease and drug-food interactions based on chemical properties are presented. Examples of drug action in the cardiovascular, endocrine, central nervous, and immune systems and anti-infective agents will be discussed, as well as the impact of pharmacogenomics.

Credits 3.5

Prerequisites

[PSCID 1532](#) Introduction to Drug Structure Evaluation and concurrent enrollment in [PHARD 1651](#) Pharmacology I

PSCID 1622: Chemical Principles of Drug Action II

Concepts of drug-target interactions and structure-activity relationships are discussed for major drug classes. Classification is based on a drug's mechanism of action at its biological target. Routes of drug metabolism, drug transport and the predication of drug-drug, drug-disease and drug-food interactions based on chemical properties are presented. Examples of drug action in the cardiovascular, endocrine, central nervous, and immune systems and anti-infective agents will be discussed, as well as the impact of pharmacogenomics.

Credits 2.5

Prerequisites

[PSCID 1621](#) Chemical Principles of Drug Action I and concurrent enrollment in [PHARD 1652](#) Pharmacology II

PSCID 1623: Chemical Principles of Drug Action III

Concepts of drug-target interactions and structure-activity relationships are discussed for major drug classes. Classification is based on a drug's mechanism of action at its biological target. Routes of drug metabolism, drug transport and the predication of drug-drug, drug-disease and drug-food interactions based on chemical properties are presented. Examples of drug action in the cardiovascular, endocrine, central nervous, and immune systems and anti-infective agents will be discussed, as well as the impact of pharmacogenomics.

Credits 2.0

Prerequisites

[PSCID 1621](#) Chemical Principles of Drug Action I and concurrent enrollment in [PHARD 1653](#) Pharmacology III

PSCID 1761: Principles of Drug Action I

The pharmacology and medicinal chemistry of major drug classes used in the treatment of various disorders are explored. Mechanisms by which drugs mediate their pharmacological effects are discussed with consideration of drug-target interactions, structure-activity relationships, side effects and related toxicities. Drug metabolism, transport, drug resistance and the prediction of drug-drug, drug-disease and drug-food interactions based on chemical properties, and the impact of pharmacogenomics are presented.

Credits 2.0

Prerequisites

[PSCID 1621](#) Chemical Principles of Drug Action I

PSCID 1762: Principles of Drug Action II

The pharmacology and medicinal chemistry of major drug classes used in the treatment of various disorders are explored. Mechanisms by which drugs mediate their pharmacological effects are discussed with consideration of drug-target interactions, structure-activity relationships, side effects and related toxicities. Drug metabolism, transport, drug resistance and the prediction of drug-drug, drug-disease and drug-food interactions based on chemical properties, and the impact of pharmacogenomics are presented.

Credits 3.5

Prerequisites

[PSCID 1621](#) Chemical Principles of Drug Action I

PSCID 1772: Biotechnology

Biotechnology-derived products are increasingly being used to treat a variety of medical conditions. This course is an introduction to biotech products, and will cover general principles, production methods, regulatory issues, stem cell and nucleic acid therapeutics, pharmacogenomics and gene testing. Delivery, storage and handling, and therapeutic use, monitoring and adverse effects of biologics (including hormones, enzymes, growth factors and monoclonal antibodies) will be addressed.

Credits 2.5

Prerequisites

[PSCID 1517](#) Physical Pharmacy and Dosage Form Design

College of Health Sciences

Mission

The College of Health Sciences (CHS) is dedicated to excellence in the education of professionals who will meet the healthcare and service needs of the community. This mission is expressed in the education, scholarship, and service objectives of the programs of the College of Health Sciences.

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the college. In the event that these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Northwestern University.

Academic Monitoring

All students enrolled in CHS are expected to:

1. Maintain satisfactory academic progress in their course of study;
2. Understand and meet all established program/College academic and professional requirements and standards as described in the course syllabi, program-related manuals, University Catalog, and Student Handbook;
3. Self-monitor their academic performance in all required courses;
4. Complete all course-related requirements in a timely and satisfactory manner;
5. Seek assistance if encountering academic difficulty;
6. Contact the appropriate Program Director and/or course coordinator when performance has been unsatisfactory; and
7. Regularly check mailbox at least twice a week and university e-mail account daily for information concerning educational programs. This is particularly important at the end of the quarter and during quarter breaks when information concerning academic performance may be distributed.

Academic Review and Progression

The academic progress of enrolled students is regularly monitored to determine whether they are making satisfactory academic progress in their program of study based on stated criteria established by the program/College. The academic review process occurs at three levels: the program-based Student Academic Review Committee, the College-based Student Promotion and Graduation Committee, and the CHS Dean.

Student Academic Review Committees

The Student Academic Review Committee of each program is appointed annually by the University Faculty Senate with the recommendation of the Program Director. Membership consists of three or more program faculty members and the Program Director (or designee). The Dean of Students and the CHS Dean or designee are ex-officio members without vote.

At the end of each quarter and more often if necessary, this committee reviews and acts upon the academic progress of each student enrolled in the program. If satisfactory, the committee recommends progression of the student to the next quarter. If unsatisfactory, the committee recommends whether a student is placed on academic warning, academic probation, extended program, academic leave of absence, or is dismissed. These recommendations are forwarded to the student, the chair of the CHS Student Promotion and Graduation Committee, and the CHS Dean. Following notification, a student may appeal the recommendation to the CHS Student Promotion and Graduation Committee. The CHS Student Promotion and Graduation Committee will review the student's appeal and make a recommendation to the CHS Dean. The CHS Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices. The Dean makes the final decision on the action to be taken.

The Student Academic Review Committee also recommends for graduation students who have satisfactorily completed all degree requirements specified by their respective program. These recommendations are forwarded to the CHS Student Promotion and Graduation Committee for review. Minutes of each meeting must be filed with the appropriate Program Director and the CHS Dean.

CHS Student Promotion and Graduation Committee

This committee is appointed annually by the University Faculty Senate. Members include the CHS Program Directors, two faculty members from each program within CHS and two faculty members from the Graduate Studies departments. The Registrar, Dean of Students, and the CHS Dean or designee are ex-officio members without vote.

At the end of each academic year, the committee reviews the recommendations from the individual Student Academic Review Committees and assesses the academic and professional progress and performance of each student. If satisfactory, the committee recommends promotion of the student. In addition, the committee meets each spring, or as needed, to recommend for graduation all students who have satisfactorily completed all degree requirements specified by their program. The committee's recommendations are forwarded to the CHS Dean and the University Faculty Senate for approval. The committee also reviews student appeals of Student Academic Review Committee recommendations. The chairperson of the committee is responsible for submitting minutes of each meeting to the CHS Dean.

Satisfactory Academic Progress

To achieve satisfactory academic progress, a student enrolled in a degree program in CHS must pass all required courses and maintain a minimum cumulative grade point average. For most programs in CHS, students are required to maintain a cumulative grade point average of 2.750 or higher. The following programs have exceptions to the minimum 2.750 GPA requirement and/or additional criteria for satisfactory academic progress.

Clinical Psychology (CP) Program - Downers Grove Campus: A student enrolled in the Clinical Psychology Program must pass all courses and maintain a cumulative grade point average of 3.000 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a minimum grade of "B-" or "P" in all required courses, seminars, and practica. To progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

Clinical Psychology (CP) Program - Glendale Campus: A student enrolled in the Clinical Psychology Program must pass all courses and maintain a cumulative grade point average of 3.000 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a minimum grade of "B-" or "P" in all required courses, seminars, and practica.

Graduate Nursing Programs (GNP): A student enrolled in one of the Graduate Nursing Programs must pass all courses and maintain a cumulative grade point average of 3.000 or higher to have achieved satisfactory academic

progress. In addition, a student must achieve a "B-" or higher in all GNP courses. Graduate Nursing Programs include Master of Science in Nursing (Adult-Gerontology Primary Care Nurse Practitioner), Master of Science in Nursing (Leadership and Global Health), Doctor of Nursing Practice, and the Post-Master's Certificate in Adult-Gerontology Primary Care Nurse Practitioner.

Nurse Anesthesia (NA) Program: A student enrolled in the Master of Science in Nurse Anesthesia Program must pass all courses and maintain a cumulative grade point average of 2.750 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a "B-" or higher in all NAAPG curriculum courses, as well as in all clinical rotation and clinical didactic component courses. A student enrolled in the Doctor of Nurse Anesthesia Practice (D.N.A.P.) entry-level or completion degree program must pass all courses, maintain a cumulative grade point average of 2.75 or higher, and achieve a "B-" or higher in all DNAPG courses.

Occupational Therapy (OT) Program: A student enrolled in the Doctor of Occupational Therapy (OTD) Program must pass all courses and maintain a cumulative grade point average of 3.000 or higher to have achieved satisfactory academic progress.

Physician Assistant (PA) Program - Downers Grove Campus: A student enrolled in the Physician Assistant Program must pass all courses and maintain a cumulative grade point average of 2.750 or higher to have achieved satisfactory academic progress. In addition, to progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

Physician Assistant (PA) Program - Glendale Campus: A student enrolled in the Physician Assistant Program must pass all courses and maintain a cumulative grade point average of 3.000 or higher to have achieved satisfactory academic progress. In addition, to progress to the next quarter, a student must satisfactorily complete all academic and professionalism requirements for the preceding quarter. A student is not able to progress to clinical rotations until or unless their cumulative GPA is greater than or equal to 3.000.

Speech-Language Pathology (SLP) Program: A student enrolled in the Speech-Language Pathology Program must pass all didactic courses with a grade of C or higher, pass all clinical courses, and maintain a minimum cumulative grade point average of 3.000 to have achieved satisfactory academic progress.

Academic Progress

Outcome	Usual Action ¹	Transcript Notation
No course failures; cumulative GPA \geq 3.000 (CP, GNP, OT-IL, PA-AZ, SLP) or \geq 2.750 (CVS, NA, OR, OT-AZ, PA-IL, PT)	Allowed to progress to the next quarter	---
No course failures; one quarter of cumulative GPA $<$ 3.000 (CP, GNP, OT-IL, PA-AZ, SLP) or $<$ 2.750 (CVS, NA, OR, OT-AZ, PA-IL, PT)	Allowed to progress and academic warning for the subsequent quarter	Academic warning is not noted on transcript.
One course failure; and/or two quarters of cumulative GPA $<$ 3.000 (CP, GNP, OT-IL, PA-AZ, SLP) or $<$ 2.750 (CVS, NA, OR, OT-AZ, PA-IL, PT)	<p>a) Allowed to progress and academic probation until all academic requirements are met, or</p> <p>b) Academic probation until all academic requirements are met and academic leave of absence³ for up to one year with retake of eligible course(s) on extended program and/or completion of any re-entry requirements</p>	<p>"F" grade is listed on transcript and is counted toward GPA calculation and total number of accumulated failures. Following successful retake of the course, the original "F" grade remains on transcript as an "F" but is no longer factored into the GPA calculation. The new grade will be factored into the GPA.</p> <p>Academic probation and extended program are not noted on transcript. Academic leave of absence is noted on transcript.</p>

Outcome	Usual Action ¹	Transcript Notation
	<p>Note: Students on an extended program may be subject to academic leave of absence or dismissal after additional course failures or failure to maintain the required cumulative GPA.</p>	
<p>Three or more quarters of cumulative GPA < 3.000 (CP, GNP, OT-IL, PA-AZ, SLP) or <2.750 (CVS, NA, OR, OT-AZ, PA-IL, PT)</p>	<p>a) Allowed to progress and academic probation until all academic requirements are met, or</p> <p>b) Academic probation until all academic requirements are met and academic leave of absence³ for up to one year with retake of eligible course(s) on extended program and/or completion of any re-entry requirements, or</p> <p>c) Dismissal</p>	<p>Academic probation and extended program are not noted on transcript. Academic leave of absence and dismissal are noted on transcript.</p>
<p>Two or more required course failures²</p>	<p>Dismissal</p> <p>Note: Two or more required course failures will typically result in dismissal. Any other decision is at the discretion of the Dean.</p>	<p>Dismissal is noted on transcript.</p>

¹ The Student Academic Review Committee or the CHS Student Promotion and Graduation Committee may recommend any of the options listed among the usual actions described for each academic situation under review. All recommended actions will be dependent on, and may be limited by, the curriculum and accreditation requirements of the individual programs.

² May or may not be preceded by academic warning/probation.

Unsatisfactory Academic Progress Students who fail to make satisfactory progress in completing their prescribed course of study are placed on academic warning, academic probation, extended program, academic leave of absence, or may be dismissed. The Student Academic Review Committee or the CHS Promotion and Graduation Committee may recommend any of the options listed among the usual actions described for each academic situation under review. All recommended academic actions will be dependent on, any may be limited by, the curriculum and accreditation requirements of the individual programs.

Students will be notified by the CHS Dean when they are placed on academic warning as a result of their failure to achieve the required minimum cumulative GPA established by their program. Students with academic deficiencies to be addressed by the Student Academic Review Committee shall be notified in writing with a delivery confirmation (i.e., next-day express mail, e-mail or hand-delivery) by the chair of the Student Academic Review Committee at least two business days in advance of the scheduled meeting in which the student's case will be heard. Students shall be permitted to appear before the Student Academic Review Committee (in person or via telephone or virtual meeting) to present their case. In such instances, students shall inform the chair of the Student Academic Review Committee, in writing, of their desire to appear before the committee or their intent to waive this right. If a student chooses to appear before the committee, this prerogative extends to only the involved student and not to any other individuals. A student whose academic progress will be subject to review by their Student Academic Review Committee and who wishes to appeal a course grade must do so in an expedited manner prior to the scheduled meeting of the Committee. An appeal of a didactic course grade must be submitted within one business day following posting of the grade and within two business days for a failing clinical course grade. The appeal must be based on one of the following premises: factual errors in course assessment tools; mathematical error in calculating the final grade; or bias. Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Grade Appeals Policy.

Within two business days following the committee meeting, the chair of the Student Academic Review Committee is responsible for providing notification in writing with a delivery confirmation (i.e., next-day express mail, e-mail, or hand-delivery) to the involved student, informing the student of the committee's recommendation. In all instances, the chair of the Student Academic Review Committee shall be responsible for informing the CHS Dean and chair of the CHS Student Promotion and Graduation Committee of each recommendation made by the committee. Following notification of a recommendation by the Student Academic Review Committee, a student may appeal the recommendation to the CHS Student Promotion and Graduation Committee (see Appeal Process description). The CHS Student Promotion and Graduation Committee will review the student's appeal and make a recommendation to the CHS Dean. The Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices. The Dean is responsible for providing written notification of the final decision to the student and to all appropriate academic support offices (i.e., Registrar, Student Financial Services, etc).

Academic Warning

Academic warning is a formal notification of substandard academic performance and cautions the student that continued performance at this level might result in academic probation. An academic warning is issued by the Dean's Office when a student earns a cumulative GPA below the minimum GPA required by their respective program for one quarter. An academic warning can be issued by the Program Student Academic Review Committee when the student fails to meet any other established program academic requirements. An academic warning is in effect for one quarter. Academic warning is not noted on the student's transcript but is noted in the student's academic file that is kept in the program office. If the student achieves the minimum standard of academic performance required by the program during the quarter of academic warning, the student is returned to good academic standing. This is also noted in the student's file.

Academic Probation

Academic probation represents notice of unsatisfactory academic progress. Academic probation typically occurs when the student fails a class during their academic program and/or earns a cumulative GPA below the minimum required by their respective program for two quarters (which do not have to be consecutive) and/or when the student fails to meet any other established program academic requirements. Academic probation is not noted on the student's transcript but is noted in the student's academic file in the program office. The student remains on academic probation until the failure is successfully repeated and/or the cumulative GPA is at or above the program's required minimum and all deficiencies have been corrected. Subsequently, when the student is returned to good academic standing, this is also noted in the student's file.

Extended Program

When a student is not allowed to progress in the standard program curriculum due to course failure, failure to maintain the required cumulative GPA for two or more quarters, and/or failure to meet any other established program academic requirement, the Student Academic Review Committee may place the student on an extended program. While on an extended program, students will be permitted to take elective courses or to retake courses in which they have received a grade of "C" or less. Students will be able to resume the standard program curriculum upon successful completion of all programmatic requirements.

Extended program is not noted on the student's transcript. Leave of absence will be noted on the transcript for periods of non-enrollment during the extended program period.

Academic Leave of Absence

Academic leave of absence may occur when a student has failed one or more courses, has accumulated two or more quarters when the cumulative GPA is less than required by their program, or has not met programmatic

criteria required to proceed in the curriculum. Academic leave of absence may or may not be preceded by academic probation. This action results in the suspension of the student from all academic courses for a period of up to one year, or until all program requirements for re-entry have been fully met. A mandatory academic leave of absence is noted on the student's transcript.

The student who has been placed on a mandatory academic leave of absence does not have to re-apply for admission and is guaranteed reentry into their academic program upon successful completion of all failed courses and/or when all programmatic requirements are met. Upon reentry to the academic program, the student is routinely placed on academic probation for the following quarter.

Academic Dismissal

Students may be dismissed from the College for academic reasons upon the recommendation of their program's Student Academic Review Committee. Dismissal is based on the determination that the students have not satisfactorily demonstrated that they can successfully achieve the standards and requirements set forth in the academic policies and professional expectations for their program. Students who accumulate two or more failures or three quarters below the minimum required grade point average may receive a recommendation for dismissal. The course failures and/or the three-quarters with less than the required minimum cumulative GPA do not have to be consecutive.

Retake of a Failed Course

If a student passes a previously failed course, the original failure remains on the transcript as an "F" grade and is included in the total number of accumulated failures in the student's academic record. The grade from the original failed course is no longer used in the computation of the GPA following repeat of the course. The grade from the repeated course will be factored into the overall GPA.

Under exceptional circumstances, such as academic probation or extended program, students may retake a Midwestern University course in which they have earned a "C." The Program Director and the CHS Dean must approve this retake option. Typically, a maximum of three courses with "C" grades can be retaken, and a course may only be retaken once. The original "C" grade will remain on the transcript but will not be used in the computation of the GPA following the completion of the repeated course. The new grade will be factored into the overall GPA.

All repeated courses are subject to additional tuition. Students should consult with their financial aid advisor regarding the financial implications of repeated coursework.

Readmission After Dismissal for Poor Academic Performance

It is at the discretion of each CHS academic program to readmit a student who has been dismissed for poor academic performance. To initiate the reapplication process, candidates must complete and submit a new application and proceed through the standard application process established by the program. Before reapplying, however, individuals should seek the advice of an admissions counselor. It is expected that these individuals would have addressed documented deficiencies before reapplication and be able to demonstrate that they meet all admission requirements and technical standards of the program.

The program's Admissions Committee will review completed applications of candidates and submit recommendations to the Program Director for action. The CHS Dean, via the Office of Admissions, then notifies applicants in writing of admission decisions.

No guarantee of readmission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Reapplications are allowed only within the first two years following dismissal and readmission will be granted only once.

Appeal Process

Following notification of a recommendation from the Student Academic Review Committee, a student may appeal the recommendation. The student has three business days to submit a formal written appeal of the recommendation to the CHS Student Promotion and Graduation Committee. The appeal must be submitted in writing and delivered to the chair of the CHS Student Promotion and Graduation Committee and the Office of the Dean within this three-day period. A narrative explaining the basis for the appeal should accompany the request. An appeal must be based on one of the following documented premises:

1. Bias of one or more members of the Student Academic Review Committee.
Note: The student must present specific evidence that the committee member(s) demonstrated bias against the student in conducting the academic review process.
2. Material, documentable information not available to the committee at the time of its initial decision.
Note: The student must provide a detailed explanation of why the new information is relevant and why it was not made available to the committee members during the academic review process. The student should be prepared to produce pertinent documentation at the appeal meeting.
3. Procedural error.
Note: The student must provide evidence that the committee did not correctly follow the procedures related to the conduct of the academic review process; for example, the student was not given notice of the meeting or committee recommendation in accordance with stated policies.

The CHS Student Promotion and Graduation Committee will review student appeals. A majority of faculty members on the committee must be from outside the program from which the student is appealing. One member of the appeal committee must be from the student's program but all committee members from the student's program will be non-voting members. The committee will review and assess the student's appeal. Any student requesting an appeal shall be notified in writing with a delivery confirmation (i.e., next-day express mail, e-mail or hand-delivery) by the chair of the committee at least two working days in advance of the scheduled meeting in which the student's case will be heard. Students may request and shall be permitted to appear before the committee (in person or via telephone or virtual meeting) to present their case. In such instances, the student shall inform the chair of the committee, in writing (i.e., e-mail or hand-delivery), of their desire to appear before the committee or their intent to waive this right. If a student chooses to appear before the committee, this prerogative extends to the involved student only and not to any other individuals. The committee may request that a course director and/or faculty advisor attend the meeting to provide additional information about the student's case. After review of the appeal, the committee chair submits the committee's recommendation to the Dean and notifies the chair of the Student Academic Review Committee. Upon receipt of the Student Promotion and Graduation Committee's recommendation, the Dean will make a decision, typically within ten business days, and then notify the student, the chairs of the Student Academic Review Committee and the CHS Student Promotion and Graduation Committee, and all appropriate support offices. The decision of the Dean is final.

Students must attend all didactic courses in which they are registered until the appeal process is complete. Students who fail a core or prerequisite course should consult with the Program Director regarding attendance in courses in the subsequent quarter. Students registered in a clinical course (rotation, practicum, etc.) may be placed on a mandatory academic leave of absence until the appeal process is finalized.

Advanced Placement/Exemption from Coursework

Some programs in CHS may allow for the transfer of credits from graduate-level coursework completed at other institutions prior to matriculation at Midwestern University. All requests for advanced placement by newly

admitted or transfer students are processed on a course-by-course basis by the program's Admissions or Education Committee. To request such consideration, a student must submit a letter of request to the Program Director in which the student lists a course(s) previously taken which might be similar in content to a professional course(s) that the student is scheduled to take. The student must also provide an official course description(s) and a syllabus (syllabi) of the course(s) previously taken. The program's Committee will share the submitted course materials with the appropriate course director to determine if the course(s) is an appropriate substitute. All requests must be submitted prior to matriculation. Each program determines the minimum letter grade of coursework for advanced placement. Typically, advanced placement will only be considered for coursework in which a minimum letter grade of "B-" or "C" has been earned. A "C-" letter grade is not acceptable for advanced placement consideration. Some programs may have additional requirements. If the Admissions or Education Committee denies the request for advanced placement, the student may appeal this decision to the CHS Dean.

If a course is accepted for credit, the equivalent Midwestern University course and the Advanced Placement (AP) notation will be recorded on the transcript along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on the transcript or used in the GPA calculation.

Class Standing

To progress to the next year in a professional program of the College, students must have satisfactorily completed all academic requirements for the preceding year of the professional program curriculum. Exceptions to this requirement must be approved by the CHS Dean.

Faculty Mentor Program

Most CHS academic programs assign a faculty mentor to students in each entering class. The faculty mentor assists with academic concerns. In addition to these faculty mentors, students may seek assistance from the CHS Office of the Dean and the Office of Student Services. The student determines the amount of interaction with the faculty mentor. It is the student's responsibility to initiate contact with the faculty mentor for assistance.

CHS faculty mentors act as liaisons between the faculty and students. Their responsibilities include:

1. Serving as the student's advisor and academic/professional counselor;
2. Overseeing and monitoring the academic progress and professional growth of the student;
3. Assisting the student in seeking academic and personal counseling services provided by the institution;
4. Serving as an advocate for the student;
5. Counseling the student during their selection of a career within the profession.

Grades

Grading System

Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows:

Grade	Percent (%)	Quality Points (per credit)	Comments
A	93-100	4.000	-
A-	90-92	3.670	-
B+	87-89	3.330	-

Grade	Percent (%)	Quality Points (per credit)	Comments
B	83-86	3.000	-
B-	80-82	2.670	-
C+	77-79	2.330	Does not apply to the Clinical Psychology, Graduate Nursing, or Nurse Anesthesia Programs (NAAPG or DNAPG courses)
C	70-76	2.000	Does not apply to the Clinical Psychology, Graduate Nursing, or Nurse Anesthesia Programs (NAAPG or DNAPG courses)
F	< 70	0.000	-
F	< 80	0.000	For the Clinical Psychology, Graduate Nursing, and Nurse Anesthesia Programs (NAAPG or DNAPG courses)
I	-	0.000	An Incomplete grade may be assigned by an instructor when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades will be resolved within 10 calendar days from the end of final examinations for the quarter or they will automatically be converted to a grade of "F." In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with notice to the Registrar.
IP	-	0.000	An In-Progress grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.
P	-	0.000	Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of 'P' is counted toward credit hour accruals for graduation but does not affect GPA calculations.
F	-	0.000	Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of "F" is counted toward credit hour accruals as attempted but not completed. Grade of "F" is calculated into the GPA (quality points are lowered due to unsuccessful course completion).
W	-	0.000	Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
WF	-	0.000	Withdrawal Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the program. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
AU	-	0.000	This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter.
AP			This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement is applied toward credit hour accruals, but is not counted in the GPA calculation.

Grade Point Average

The grade point average (GPA) is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course. The student's cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated initially at the end of the first quarter of enrollment and does not include any grades or credits for courses audited or accepted for advanced placement or for courses with a grade of withdrawal (W), withdrawal failing (WF), or pass (P). Additionally, failing (F) grades for courses that are successfully repeated are not included in the GPA. Under exceptional circumstances and with the approval of the Program Director and Dean, students may retake a course in which they received a grade of "C." In such cases, the original grades remain on the transcript but only the new grades are used in the computation of the GPA.

Graduation

The following degrees will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements: Master of Science in Cardiovascular Science, Master of Arts in Clinical Psychology, Doctor of Psychology in Clinical Psychology, Master of Science in Nurse Anesthesia, Doctor of Nurse Anesthesia Practice, Master of Science in Nursing (Adult-Gerontology Primary Care Nurse Practitioner), Master of Science in Nursing (Leadership and Global Health), Doctor of Nursing Practice, Master of Occupational Therapy, Doctor of Occupational Therapy, Doctor of Physical Therapy, Master of Medical Science in Physician Assistant Studies, or Master of Science in Speech-Language Pathology. A Post-Master's Certificate in Adult-Gerontology Primary Care Nurse Practitioner is also offered.

Immunization Policy

Full-time students enrolled in a program with a clinical component are required to have all immunizations and titers as outlined in the general policy section of the Student Handbook.

Leave of Absence

Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Leave of Absence Policy. A student may be placed on a mandatory leave of absence for academic, medical, or administrative reasons that prevent the student from progressing in their program of study. Before voluntarily requesting a leave for personal reasons or after being placed on a mandatory leave, a student must make an appointment with the appropriate Program Director and representative from the Dean's Office to discuss the implications of the leave of absence and a revised program of study, if applicable. Typically, a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. Periods of non-enrollment do not count towards the maximum allotted time for completion of academic programs.

Professional Conduct

Students are expected to emulate the legal, moral, and ethical standards expected of professionals and display behavior that is consistent with these qualities. A Code of Responsibilities and Rights of the Students of Midwestern University is included in Appendix 1 of the MWU Student Handbook. This code clearly states the mode of behavior that is expected of students and covers both on-campus and off-campus activities. Students are expected to read and follow this code.

Unsatisfactory professional behavior, as defined in Appendices 2 and 4 of the MWU Student Handbook, is subject to disciplinary sanctions that may preclude academic progress in a student's program of study. The Dean of Students investigates formal complaints concerning student misconduct and recommends disciplinary action to the CHS Dean. A student who is found to have engaged in improper conduct is subject to disciplinary action which includes, but is not limited to, disciplinary warning/probation, temporary suspension, or dismissal. Disciplinary warning and probation are not noted on the transcript but are kept in the student's disciplinary file. Suspension and dismissal as a result of disciplinary action are noted on the student's transcript. Disciplinary information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Transfer Policy (Intercampus)

Students are expected to complete their degree requirements at the campus to which they originally matriculated. Transfer between campuses is permitted only under extenuating and specific circumstances for enrolled students that are in good academic standing. Students should consult first with the Program Director and then with the Office of the Dean to discuss the process.

Physician Assistant Program

Mission

The mission of the Midwestern University Physician Assistant (PA) Program is to develop competent and compassionate physician assistants who will make meaningful contributions to their patients, community, and profession.

Diversity & Inclusion

Midwestern University is committed to establishing a culture of inclusivity that celebrates diversity. As part of its vision, Midwestern University embraces cultural and social diversity in the academic community and the community-at-large.

The Midwestern University-Downers Grove PA Program also celebrates diversity, inclusion, and many perspectives in medical education. We value diversity among students, faculty, and staff throughout the educational experience. We seek to prepare future clinicians to serve diverse populations and address the healthcare needs of all patients.

These values and aims align with Midwestern University's commitment to diversity and inclusion and express commitment to meeting the diversity and inclusion standards set forth by the Accreditation Review Commission on Education for the Physician Assistant, Inc.

Goals

The goals of the Midwestern University PA Program are to: 1) provide a rigorous academic and clinical curriculum and achieve first-time PANCE percentage pass rates above the national average, 2) cultivate an environment of professionalism to encourage the development of competent and compassionate providers, 3) prepare students to serve diverse populations in both primary care and specialty settings, 4) demonstrate the application of evidence-based medicine and foster a continuous commitment to lifelong learning and community involvement as a health care provider, and 5) develop and implement student recruitment and holistic admissions processes to enhance the number of our matriculants from groups who are underrepresented in medicine and/or from disadvantaged backgrounds.

Competencies

To ensure students who graduate from the Midwestern University-Downers Grove PA Program are prepared for entry-level PA practice, they receive a didactic and clinical curriculum that facilitates their achievement of specific core competencies. The Midwestern University-Downers Grove PA Program Competency Framework includes 19 separate core competencies across the following six competency domains: Knowledge for Practice, Patient-Centered Practice, Interpersonal and Communication Skills, Professionalism, and Self-Improvement and Personal Wellness. A list of the [core competencies](#) adopted by the Midwestern University-Downers Grove PA Program is published.

Accreditation

The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) has granted Accreditation-Continued to the Midwestern University-Downers Grove Physician Assistant Program sponsored by Midwestern University. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards.

Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards. The approximate date for the next validation review of the program by the ARC-PA will be March 2023. The program's accreditation history can be viewed on the ARC-PA website at: <http://www.arc-pa.org/accreditation-history-midwestern-university-dg/>

Degree Description

The professional curriculum leads to a Master of Medical Science in Physician Assistant Studies. This full-time 27-month professional program offers students the opportunity to earn a graduate degree and satisfy the eligibility requirements for the PA national certifying examination. The maximum allotted time for completion of this program is 40.5 months.

The roles and specific clinical duties and responsibilities that graduates can expect to experience will likely vary depending on their chosen career path. PA Program graduates are expected to have the ability to competently perform patient histories and physicals, gather pertinent patient data, order and interpret diagnostic studies, recognize common diseases and disorders, choose appropriate therapeutic modalities, perform surgical procedures, manage emergency life-threatening conditions, promote health through counseling, education, and disease prevention, and demonstrate interpersonal skills consistent with the physician assistant role.

The didactic coursework includes 12 months of basic science coursework in anatomy, biochemistry, neuroscience, physiology, pharmacology, immunology, genetics, and microbiology. It also includes clinical coursework in clinical medicine, behavioral medicine, professional issues, and interpretation of the medical literature. During the remaining 15 months, students are required to rotate through eight core clinical rotations and two elective clinical rotations, in addition to completing advanced clinical medicine courses and a capstone project.

The second-year clinical program is primarily delivered at affiliated clinical sites and facilities within the Chicago metropolitan area. These sites are geographically and demographically diverse, reflecting the broad scope of practice opportunities that exist for PAs in the healthcare delivery system of this country. Sites include ambulatory practice settings, small and large office-based group practices, community health centers, in-patient settings involving large and small hospitals as well as federal and state facilities. These sites are in urban, suburban, and rural communities. In addition, the program has established formal affiliations with clinical facilities and practitioners in a number of other states. As part of the clinical education phase of the program, students enrolled in the PA Program will likely be assigned to clinical rotations that reflect the geographic and demographic diversity described above, including out-of-state rotations. Subsidized housing may be provided for out-of-state and distant core clinical rotations. Students are expected to secure their own housing for local and elective rotations, and must provide their own transportation to all core and elective clinical rotations regardless of location.

The PA Program does not offer an extended course of study beyond the usual length of the program.

The PA Program does not grant advanced placement credit for any previously completed coursework.

The Program does not accept students who transfer from another Physician Assistant Program.

Admissions

The Midwestern University PA Program considers applicants who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. The admissions environment is highly selective with approximately 1,400 applications received each year for 86 seats. The application deadline is October 1, however, the PA Program uses a rolling admissions process in which applicants are continuously accepted until all seats are filled, so applicants are encouraged to apply early.

Completed applications received on or before the application deadline are reviewed to determine applicant eligibility for interviews. The following criteria are used to select the most qualified candidates: science and cumulative grade point averages (GPA), rigor of undergraduate and prerequisite courses, letters of recommendation, healthcare experience, knowledge of the profession, and motivation for a career as a PA. Additionally, in all aspects of the Program, the Program is committed to achieving and fostering diversity, inclusion, and equality to enrich the educational experience and realize the University's and Program's missions and goals. Competitive candidates are typically invited to campus for interviews during the months of August through January.

Admission Requirements

Students seeking admission to the PA Program must submit the following documented evidence:

1. Minimum cumulative science and overall GPAs of 3.00 on a 4.00 scale. Competitive applicants typically have science and overall GPAs of 3.3 or higher.
2. Completion of prerequisite courses as listed below from regionally accredited colleges or universities.
 - All prerequisite courses must be completed with a grade of a C or better.
 - Grades of C- are NOT acceptable for any prerequisite courses.
 - If advanced placement (AP) credit has been granted by an outside institution, this credit will automatically be considered for the following prerequisite courses: Math, Statistics, English Composition, and Social and Behavioral Science courses.
 - For AP credit earned in Biology and Chemistry, MWU may request the submission of appropriate documentation (as determined by MWU) to verify the AP credit earned meets the program's admission standards.
 - Life experience credits do not count toward fulfillment of any prerequisite courses
 - Courses in which grades of "pass" are earned will be counted only when applicants can provide verification that the earned grades are equivalent to grades of C or better (grades of C- are not acceptable).
3. Completion of prerequisite courses by December 31st of the year which precedes the year of anticipated matriculation.
 - No exceptions will be made.
 - Applicants must determine which prerequisites are missing and which courses must be taken to fulfill any outstanding prerequisites.
 - Students invited to interview must show documentation on the day of their visit that they are enrolled in or registered for any outstanding prerequisites.
4. Completion of a bachelor's degree from a regionally accredited college or university before matriculation.
5. If applicable, completion of required non-cognitive assessments (e.g., situational judgment testing).
6. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.
7. Demonstration of service and leadership through community service or extracurricular activities.
8. Oral and written communication skills necessary to interact with patients and colleagues.
9. Passage of Midwestern University criminal background check.
10. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
11. Submission of documentation that demonstrates completion of or progress towards completing tuberculosis screening and all required immunizations. Students are required to complete tuberculosis screening and all required immunizations prior to beginning their clinical phase of training.

Prerequisite Courses

Course	Semester/Hours
*Biology with lab	4 Sem/6 Qtr hours

Course	Semester/Hours
*Anatomy	4 Sem/6 Qtr hours
*General Chemistry with lab	8 Sem/12 Qtr hours
*Organic Chemistry with lab	4 Sem/6 Qtr hours
Math (college algebra or above)	3 Sem/4 Qtr hours
Statistics	3 Sem/4 Qtr hours
**English Composition	6 Sem/9 Qtr hours
Social and Behavioral Sciences (Sociology, Psychology, or Anthropology, etc.)	6 Sem/9 Qtr hours

*All science prerequisites must be courses designed for science majors. No survey courses will fulfill science prerequisites. Courses with an online laboratory component will not meet any biology or chemistry prerequisite. The Midwestern University-Downers Grove Physician Assistant Program is aware that many universities and colleges across the country had to modify their curriculum in reaction to the Coronavirus Disease-2019 (COVID-19) pandemic. One modification was offering coursework, including laboratory components, online. Currently, the PA Program policy is that courses with an online laboratory component will not meet any biology or chemistry prerequisite. This policy will be amended to accept prerequisite coursework with a laboratory component completed during Spring 2020, Summer 2020, Fall 2020, Spring 2021, Summer 2021, or Fall 2021 which was only offered online. In these circumstances, MWU may request appropriate documentation to verify that the institution was not offering in-person laboratory components for prerequisite courses the applicant completed during the above time period(s). In addition, advanced placement credit received at the undergraduate level may not satisfy biology or chemistry prerequisites. For advanced placement (AP) credit earned in biology and chemistry, MWU may request the submission of appropriate documentation (as determined by MWU) to verify the AP credit earned meets the program's admission standards.

**Courses accepted for the English Composition prerequisite include rhetoric, composition, technical writing, and courses designated as writing intensive by the institution.

Pass/Fail coursework during COVID-19

The Midwestern University-Downers Grove Physician Assistant Program is aware that many universities and colleges across the country had to modify their curriculum in reaction to the Coronavirus Disease-2019 (COVID-19) pandemic. One modification included awarding Pass/Fail final grades instead of traditional letter grades for completed coursework. According to the admissions requirement of the Midwestern University-Downers Grove PA Program, prerequisite courses in which grades of "pass" are earned are counted only when applicants can provide verification that the earned grades are equivalent to grades of C or better (grades of C- are not acceptable). This requirement will be waived for all prerequisite coursework completed during Spring, Summer, or Fall 2020 in which only pass/fail grades were awarded. In these circumstances, MWU may request appropriate documentation to verify that the institution was not awarding letter grades for prerequisite courses the applicant completed during the above time period(s).

Application Process and Deadlines

1. CASPA Application

Completed applications with all required materials must be submitted to the Centralized Application Service for Physician Assistants (CASPA) at <https://paeaonline.org/caspa/> by October 1. Please refer to the CASPA application instructions for specific details about completing the application, required documents, and processing time. CASPA applications are available beginning in April of the academic year preceding the year in which the applicant plans to matriculate. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their CASPA application early in the cycle. Completed applications are reviewed continuously throughout the admissions cycle.

2. Letters of Recommendation

Applicants are required to submit two letters of recommendation from professionals to CASPA (<https://paeaonline.org/caspa/>). The Office of Admissions will only accept letters of recommendation received directly from CASPA. It is preferred that one letter is written by a science professor who has actually taught the student or a pre-health advisory committee. The second letter may be written by any one of the following: a pre-health advisory committee, a pre-health advisor, college professor, or a healthcare professional (preferably a PA) who is well-acquainted with the applicant's academic and professional qualifications. Please refer to the CASPA application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. Completed Applications

The Office of Admissions will send letters verifying receipt of completed CASPA applications with all required materials to applicants who meet the minimum overall and science GPA requirement of 3.00. Letters will also include instructions on tracking application status online. Applicants must track the receipt of their application materials to ensure the submission of all required documents. Only applicants who submit all required application materials by the published deadlines will be considered for acceptance into the program.

4. Beginning with the 2022-2023 CASPA Application Cycle, the Northwestern University PA Program will no longer require completion of the Graduate Record Examination (GRE) general test for admission into the program.

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address. All requests for application withdrawal must be made in writing via e-mail, fax, or letter to the Office of Admissions:

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
630/515-7200 or 800/458-6253
Fax: 630/971-6086
admissil@midwestern.edu

Interview and Selection Process

Completed applications are reviewed to determine which applicants merit invitations for on-campus and/or virtual interviews. The following criteria are used to select the most qualified candidates for interview invitations: science and cumulative grade point averages (GPA), rigor of undergraduate and prerequisite courses, letters of recommendation, healthcare experience, knowledge of the profession, and motivation for a career as a PA. Additionally, in all aspects of the Program, the Program is committed to achieving and fostering diversity, inclusion, and equality to enrich the educational experience and realize the University's and Program's missions and goals. Interviews are typically scheduled during the months of August through January. Applicants selected to interview will be notified by e-mail or telephone of available dates. Interviews are required before final admissions decisions are made.

At the time of application, students enrolled in another Northwestern University program are guaranteed an admission interview with the Physician Assistant Program if they meet the requirements outlined in the Articulation Agreement Between Northwestern University Programs of this catalog.

The Dean of the College of Health Sciences may recommend for an interview, applicants who meet the Program's minimum requirements for which they are applying (e.g., children of alumni, faculty, or staff). These applicants are not guaranteed admission into a Program and will have their application reviewed similarly to other applicants being considered for acceptance. All admissions decisions are made by the program Admissions Committee.

Applicants who have been invited to participate in a required on-campus or virtual interview will be evaluated on verbal communication skills, understanding of the profession, commitment to patient care, and/or other elements as determined by the program. The interview day will also provide applicants with an opportunity to learn more about the Physician Assistant program, financial aid programs, and student services. A campus tour and lunch will be provided for interviews conducted in-person.

The PA Admissions Committee which also includes the PA Program Director as a member, reviews the complete applications of candidates who were interviewed and then makes admissions decisions utilizing a holistic admissions process that considers various characteristics of an applicant. These characteristics are similar to what were used to select candidates for an interview. Additionally, in all aspects of the Program, the Program is committed to achieving and fostering diversity, inclusion, and equality to enrich the educational experience and realize the University's and Program's missions and goals. Once admissions decisions are made, the CHS Dean, via the Office of Admissions, then notifies applicants in writing of admissions decisions. All applicants with complete applications will receive notification in writing regarding their status by the end of March.

Please Note: Applicants who interview before December 31 are required to submit documentation verifying any outstanding coursework in progress (by providing a copy of a class schedule or a transcript listing the coursework). Applicants must submit documentation of satisfactory completion of prerequisites no later than the December 31st deadline. Applicants who fail to submit this proof by the designated date will not be considered for admission into the Program.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must have abilities and skills in five areas:

- 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.
 1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses. The candidate must be able to accurately auscultate lung/breath, heart and bowel sounds to complete the curricular requirements to individually complete a physical examination of a patient/client.
 2. **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
 3. **Motor:** Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs.
 4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem-solve, measure, calculate, reason, analyze, record, and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment and the consistent, prompt, completion of all responsibilities and the development of mature, sensitive, and effective relationships. Candidates must be able to tolerate physically, mentally, and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest, and motivation to learn are all personal qualities required during the educational process. The candidate must agree to participate in touching/palpating on the skin and being touched/palpated on the skin by individuals regardless of gender in all academic settings, including intra- and extraoral examinations. These activities will take place in large and small group settings as directed in the College's and/or Program's curricular requirements.

Candidates are required to verify that they understand and meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotions Committee.

Reapplication Process

After receiving either a denial or an end-of-cycle letter, prospective students may reapply for the following year's admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit new applications through CASPA and proceed through the standard application process.

Graduation Requirements

To qualify for the Master of Medical Science in Physician Assistant Studies (MMS) degree, students must:

1. Follow an approved course of study leading to the completion of all master's requirements;
2. Satisfactorily complete all professional courses and clinical rotations with a minimum cumulative grade point average of 2.750 and have no individual course or rotation grade below a "C" or "Pass";
3. Demonstrate professionalism throughout the didactic and clinical phases of training;
4. Satisfactorily complete the Summative Evaluation;
5. Satisfactorily complete the required 146 credit hours in the overall course of study;
6. Receive a favorable recommendation for master's degree conferral from the PA Program Student Academic Review Committee and the CHS Student Promotion and Graduation Committee;
7. Be recommended for conferral of the master's degree by the University Faculty Senate;
8. Settle all financial accounts with the University; and
9. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Certification/Licensure Requirements

To practice as a physician assistant in the United States, students must successfully complete a PA program accredited by the ARC-PA. Students must also pass the certifying examination administered by the National Commission on Certification of Physician Assistants (NCCPA).

For further information regarding the certifying examination, contact the National Commission on Certification of Physician Assistants, Inc., 12000 Findley Road, Suite 100, Johns Creek, GA 30097-1409; 678/417-8100; www.nccpa.net

Midwestern University's Downers Grove Physician Assistant program meets the educational requirements for certification and licensure to practice as a physician assistant in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, U.S. Virgin Islands, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment.

PA Curriculum

Degree Type

Master of Medical Science in Physician Assistant Studies (P.A.)

The MWU CHS Physician Assistant Program reserves the right to alter its curriculum however and whenever it deems appropriate.

For the most up to date Curriculum information, please click [here](#) to refer to the PDF version.

Total Quarter Credits in the Professional Program: 146

First Professional Year

Summer Quarter

Course Code	Title	Credits
ANATD 0500	Human Gross Anatomy and Embryology	7.0
BIOCD 0551	Human Biochemistry	3.0
BIOCD 0552	Clinical Biochemistry and Nutrition	3.0
PASSD 0511	Professional Seminar I	1.0
PASSD 0518	Clinical Medicine I	5.0

Fall Quarter

Course Code	Title	Credits
ANATD 0565	Human Neurosciences	4.0
CORED 1599C	Interprofessional Education I	1.0
PASSD 0519	Clinical Medicine II	5.0
PASSD 0564	Physical Diagnosis	3.0
PHARD 0584	Pharmacology I	3.0
PHYSD 0510	Human Physiology I	3.5

Winter Quarter

Course Code	Title	Credits
MICRD 0576	Immunology	2.0
PASSD 0503	Clinical Medicine III	6.0
PASSD 0529	Research Seminar	3.0
PASSD 0541	Psychiatric Principles	2.0
PHARD 0585	Pharmacology II	3.0
PHYSD 0511	Human Physiology II	3.5

Spring Quarter

Course Code	Title	Credits
BIOCD 0581	Human Genetics	1.0
MICRD 0582	Infectious Diseases	4.0
PASSD 0504	Clinical Medicine IV	6.0
PASSD 0512	Professional Seminar II	2.0
PASSD 0521	Introduction to Capstone Project	1.0
PASSD 0528	Advanced Patient Assessment and Management	2.0
PHARD 0586	Pharmacology III	3.0

Second Professional Year

Clinical Block (Summer-Spring Quarters)

Course Code	Title	Credits
PASSD 0641	Internal Medicine Rotation	6.0
PASSD 0642	Behavioral Medicine Rotation	6.0
PASSD 0643	General Surgery Rotation	6.0
PASSD 0644	Emergency Medicine Rotation	6.0
PASSD 0645	Family Medicine Rotation	6.0
PASSD 0647	Women's Health Rotation	6.0
PASSD 0648	Pediatric Medicine Rotation	6.0
PASSD 0649	General Clinical Medicine Rotation	6.0
PASSD 0681	Advanced Clinical Medicine I (summer quarter)	3.0
PASSD 0671	Independent Study in Capstone Project I (fall quarter)	0.5
PASSD 0672	Independent Study in Capstone Project II (winter quarter)	0.5
PASSD 0682	Advanced Clinical Medicine II (winter quarter)	3.0
PASSD 0674	Independent Study in Capstone Project III (spring quarter)	1.0

Third Professional Year

Summer Quarter

Course Code	Title	Credits
PASSD 0749	Elective I Rotation	4.0
PASSD 0750	Elective II Rotation	4.0
PASSD 0775	Independent Study in Capstone Project IV	1.0
PASSD 0783	Advanced Clinical Medicine III	4.0
	Total Credits	146

Student Academic Policies

Academic Progress

The academic standing of a student is determined by the student's cumulative grade point average. To progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

Faculty

Samantha Boburka, M.M.S., PA-C

Midwestern University
College of Health Sciences
Director of Clinical Education and Assistant Professor

Melissa Johnson Chung, Ed.D., M.M.S., PA-C

Midwestern University
College of Health Sciences
Program Director and Associate Professor

Kristy L. Luciano, M.S., PA-C

Midwestern University
College of Health Sciences
Associate Program Director and Associate Professor

Don Martinez, Jr., M.M.S., PA-C

Midwestern University
College of Health Sciences
Assistant Professor

Erica L. Menocci, M.M.S., PA-C

Midwestern University
College of Health Sciences
Assistant Professor

Sandhya Noronha, M.D.

University of Illinois at Chicago
College of Medicine
Professor

Leah Pieczynski, M.M.S., PA-C

Midwestern University
College of Health Sciences
Assistant Professor

Daniel Provencher, M.S., PA-C

Midwestern University
College of Health Sciences
Director of Faculty and Student Development and
Associate Professor

Lendell Richardson, M.D.

Loyola University of Chicago
Stritch School of Medicine
Medical Director and Associate Professor

Jocelin Sisto, M.A., M.M.S., PA-C

Midwestern University
College of Health Sciences
Assistant Professor

Lauren Trillo, M.M.S., PA-C

Nova Southeastern University
College of Health Care Sciences
Director of Clinical Education and Assistant Professor

Courses

ANATD 0500: Human Gross Anatomy and Embryology

This course presents lectures and cadaver dissection laboratories emphasizing the normal structure of the human body; the embryologic basis of adult anatomy; the relationship between structure and function; and the use of human gross anatomy in physical diagnosis.

Credits 7.0

ANATD 0565: Human Neurosciences

This is an integrated, interdisciplinary course in which students learn to identify and describe the basic structural components and corresponding functions of the human nervous system. Emphasis is given to correlating underlying lesions involving these structures with neurologic deficits and dysfunctions likely to be encountered in clinical practice. Integrated lectures are given by faculty in the Departments of Anatomy and Physiology, and the Speech Language Pathology Program.

Credits 4.0

BIOCD 0551: Human Biochemistry

This course provides a foundation for basic science courses concerned with normal and pathologic human physiology, biochemistry, cytology, histology, pharmacology, and nutrition. Topics include cellular energy metabolism, signal transduction, neurotransmitter synthesis and degradation, cellular energetics, foundations of molecular biology, nutrition, and metabolism in differentiated tissues and organs.

Credits 3.0

BIOCD 0552: Clinical Biochemistry and Nutrition

The objective of this course is to equip the physician assistant with the knowledge needed to apply nutritional principles to preventive medicine and various common pathologies. Additional topics include clinical problem solving skills, statistics in clinical decision making, blood clotting, the role of nutrition in different anemias, diabetes mellitus, the hyperlipidemias, and factors affecting blood chemistries.

Credits 3.0

BIOCD 0581: Human Genetics

This course is devoted to introducing the foundations of human genetics. Topics include normal transmission of dominant and recessive genetic traits, sex-linked/autosomal-linked inheritance, common genetic defects and diseases, inheritance patterns and probabilities, genetic mapping, common risk factors in inherited/acquired genetic diseases, family counseling, and family planning issues.

Credits 1.0

CORED 1599C: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

MICRD 0576: Immunology

This didactic course introduces students to the fundamental principles of immunology and host defense mechanisms and considers them in relation to defense against common viral, bacterial, fungal, and parasitic agents of disease, immunologic abnormalities, immune-deficiency disorders, immunoprophylaxis, and therapy.

Credits 2.0

MICRD 0582: Infectious Diseases

This didactic course covers infectious diseases, their etiologic agents, differential diagnoses and disease management. Through the use of diagnostic algorithms and integrative self-studies, students learn problemsolving skills. The course includes hands-on experiential laboratory sessions which augment didactic material and provide insight into clinical microbiological laboratory procedures and an evidence-based approach to diagnoses in the infectious diseases context.

Credits 4.0

PASSD 0503: Clinical Medicine III

A systems-oriented approach will introduce common diseases and syndromes across the life-span, their underlying pathophysiology (including symptoms and signs), patient evaluation (history, physical examination, and diagnostic studies), differential diagnosis, and basic therapeutic concepts. Acute exacerbations of chronic diseases and emergency care will be integrated as appropriate. Formal lectures, interactive case-based lectures and case group discussion techniques will be utilized.

Credits 6.0

PASSD 0504: Clinical Medicine IV

A systems-oriented approach will introduce common diseases and syndromes across the life-span, their underlying pathophysiology (including symptoms and signs), patient evaluation (history, physical examination, and diagnostic studies), differential diagnosis, and basic therapeutic concepts. Acute exacerbations of chronic diseases and emergency care will be integrated as appropriate. Formal lectures, interactive case-based lectures and case group discussion techniques will be utilized.

Credits 6.0

PASSD 0511: Professional Seminar I

This course presents and discusses the clinical practice, role, and responsibilities of physician assistants. Professional behavior, cultural and social awareness, basic concepts for quality healthcare delivery and the future of the physician assistant profession will be discussed. The interaction of healthcare providers within various clinical settings will also be examined.

Credits 1.0

PASSD 0512: Professional Seminar II

This course expands on the professional role of the physician assistant. Ethical issues that arise during the provision of healthcare services will be discussed. In addition, medicolegal aspects of healthcare and preparation for clinical practice will be reviewed.

Credits 2.0

PASSD 0518: Clinical Medicine I

Medical interviewing skills will be introduced through formal lectures and developed through standardized patient interviews. The skills, knowledge, and sensitivity needed to communicate and improve patient rapport in a variety of psychosocial situations will be discussed. A systems-oriented approach will introduce common diseases across the life-span, their underlying pathophysiology (including symptoms and signs), patient evaluation (history, physical examination and diagnostic studies), differential diagnosis, and basic therapeutic concepts.

Credits 5.0

PASSD 0519: Clinical Medicine II

A systems-oriented approach will introduce common diseases and syndromes across the life-span, their underlying pathophysiology (including symptoms and signs), patient evaluation (history, physical examination, and diagnostic studies), differential diagnosis, and basic therapeutic concepts. Acute exacerbations of chronic diseases and emergency care will be integrated as appropriate. Formal lectures and interactive case-based lecture techniques will be utilized.

Credits 5.0

PASSD 0521: Introduction to Capstone Project

This course is designed to help the student create the conceptual framework and medical literature review that will lead to the development of the Capstone Project. Students will research a medical topic of interest to them and begin to develop the foundation needed for developing their Capstone Project.

Credits 1.0

PASSD 0528: Advanced Patient Assessment and Management

This course is designed to allow the physician assistant student to obtain the knowledge and skills required to assess a patient's medical and health status as part of the focused adult history and problem-oriented physical examination. Students will also develop patient-management skills by ordering and interpreting laboratory and diagnostic studies and appropriate therapeutics. The course is designed to build upon the medical history knowledge gained in Clinical Medicine I and the screening adult physical exam skills learned in Physical Diagnosis.

Credits 2.0

PASSD 0529: Research Seminar

This course is designed to provide an overview of the scientific method including quantitative and qualitative analyses, research techniques and research design methods. Elementary statistical techniques will be reviewed including an introduction to probability, measurement theory, correlation, regression analysis, sampling, significance tests and statistical inference. Active learning opportunities to foster the development of skills to implement evidence-based medicine principles in Physician Assistant practice will be utilized.

Credits 3.0

PASSD 0541: Psychiatric Principles

This course presents the concepts and practices related to a review of the symptoms, signs, diagnosis and management of psychiatric conditions across the lifespan.

Credits 2.0

PASSD 0564: Physical Diagnosis

Physical examination techniques will be introduced during formal lectures and practiced during partner-paired laboratory sessions in this course. Normal physical findings and examination techniques will be emphasized. Common normal variants and classic physical abnormalities will be introduced and discussed. Lectures, laboratory sessions, and interactive case-based lecture techniques will be employed.

Credits 3.0

PASSD 0641: Internal Medicine Rotation

Six-week clinical rotation in an Internal Medicine setting.

Credits 6.0

PASSD 0642: Behavioral Medicine Rotation

Six-week clinical rotation in a Behavioral Medicine setting.

Credits 6.0

PASSD 0643: General Surgery Rotation

Six-week clinical rotation in a General Surgery setting.

Credits 6.0

PASSD 0644: Emergency Medicine Rotation

Six-week clinical rotation in an Emergency Medicine setting.

Credits 6.0

PASSD 0645: Family Medicine Rotation

Six-week clinical rotation in a Family Medicine setting.

Credits 6.0

PASSD 0647: Women's Health Rotation

Six-week clinical rotation in an Obstetrics/Gynecology setting.

Credits 6.0

PASSD 0648: Pediatric Medicine Rotation

Six-week clinical rotation in a Pediatric Medicine setting.

Credits 6.0

PASSD 0649: General Clinical Medicine Rotation

Six-week clinical rotation in a General Clinical Medicine setting.

Credits 6.0

PASSD 0671: Independent Study in Capstone Project I (fall quarter)

This course is designed to facilitate the completion of an independent medical research project as the culmination of the master's degree for the physician assistant student. The project entails scholarly inquiry into a clinical medicine topic and application of evidence-based medicine techniques to facilitate completion of the required components of the Capstone Project.

Credits 0.5

Semester Offered

fall quarter

PASSD 0672: Independent Study in Capstone Project II (winter quarter)

This course is designed to facilitate the completion of an independent medical research project as the culmination of the master's degree for the physician assistant student. The project entails scholarly inquiry into a clinical medicine topic and application of evidence-based medicine techniques to facilitate completion of the required components of the Capstone Project.

Credits 0.5

Semester Offered

winter quarter

PASSD 0674: Independent Study in Capstone Project III (spring quarter)

This course is designed to facilitate the completion of an independent medical research project as the culmination of the master's degree for the physician assistant student. The project entails scholarly inquiry into a clinical medicine topic and application of evidence-based medicine techniques to facilitate completion of the required components of the Capstone Project.

Credits 1.0

Semester Offered

spring quarter

PASSD 0681: Advanced Clinical Medicine I (summer quarter)

This course is designed to build upon the student's foundation of clinical medicine knowledge and to prepare the student to begin clinical year rotations. Lectures will provide advanced information and instruction covering a range of medical topics including interpretation of electrocardiograms, and topics that will facilitate the student's continuing development of knowledge and therapeutic skills in patient assessment, medical decision-making, and clinical management.

Credits 3.0

Semester Offered

summer quarter

PASSD 0682: Advanced Clinical Medicine II (winter quarter)

This course is designed to build upon the student's foundation of clinical medicine knowledge and to continue to develop critical thinking and medical decision making skills. Lectures will provide advanced information and instruction covering a range of medical topics.

Credits 3.0

Semester Offered

winter quarter

PASSD 0749: Elective I Rotation

Four-week clinical rotation in a discipline of the student's choosing (subject to approval by the Program).

Credits 4.0

PASSD 0750: Elective II Rotation

Four-week clinical rotation in a discipline of the student's choosing (subject to approval by the Program).

Credits 4.0

PASSD 0775: Independent Study in Capstone Project IV

This course is designed to facilitate the completion of an independent medical research project as the culmination of the master's degree for the physician assistant student. The project entails scholarly inquiry into a clinical medicine topic and application of evidence-based medicine techniques to facilitate completion of the required components of the Capstone Project.

Credits 1.0

PASSD 0783: Advanced Clinical Medicine III

This course is designed to focus on professional issues in preparation for graduation and clinical practice. In addition, students will receive an intensive week of lecture topics to help them prepare for the Physician Assistant National Certifying Examination (PANCE).

Credits 4.0

PHARD 0584: Pharmacology I

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. The course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0585: Pharmacology II

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. The course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0586: Pharmacology III

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. The course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHYSD 0510: Human Physiology I

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbations of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the properties of excitable cells and the function of the neuromuscular, cardiovascular, pulmonary, renal, digestive, endocrine and reproductive systems.

Credits 3.5

PHYSD 0511: Human Physiology II

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbations of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the properties of excitable cells and the function of the neuromuscular, cardiovascular, pulmonary, renal, digestive, endocrine and reproductive systems.

Credits 3.5

Physical Therapy Program

Mission

The mission of the Midwestern University Physical Therapy Program is to educate students, using the highest standards of academic excellence, to become physical therapists who practice across the healthcare continuum, making meaningful contributions to their patients, community, and profession.

Vision

The Midwestern University Physical Therapy Program will provide an environment which supports students and faculty to:

- Promote and optimize movement and function
- Maximize activity and participation of individuals
- Promote health and wellness
- Maintain an ethical framework for practice
- Support professional development of students, staff and faculty
- Acquire, appraise and apply current, best basic science, applied science and professional knowledge for making practice decisions
- Engage in scholarly activity and disseminate scholarly products
- Embrace cultural and social diversity in the academic community, healthcare community, and community-at-large
- Practice as collaborative members of the health community

Accreditation

The Physical Therapy Program at Midwestern University, Downers Grove, IL is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 3030 Potomac Avenue, Suite 100, Alexandria, Virginia 22305-3085; telephone: 703-706-3245; e-mail: accreditation@apta.org; website: <http://www.capteonline.org>. If needing to contact the program/institution directly, please call 630-515-6462 or e-mail eliutk@midwestern.edu.

Midwestern University is also accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413. 1-800-621-7440.

Degree Description

Midwestern University's Physical Therapy Program offers a course of study leading to the Doctor of Physical Therapy (D.P.T.) degree for qualified students. The full-time, continuous, 34-month, entry-level Doctor of Physical

Therapy curriculum is designed to deliver the academic and clinical education required to prepare students for their professional role as key members of the healthcare team and as an integral part of the healthcare delivery system. The general education, professional training, experience, and personal character development of physical therapists uniquely prepare them to coordinate care related to improvement of functional ability.

The focus of the professional clinical doctorate degree program is the preparation of entry-level, generalist physical therapists who are able to provide competent, skilled professional services in a wide range of community and institutional practice settings that require independent judgment and self-sufficiency.

The Doctor of Physical Therapy Program prepares entry-level practitioners to provide physical therapy services in large, small, traditional, and nontraditional community and institutional practice settings that require independent judgment, leadership, and autonomous practice. The program also provides the foundation for graduates to identify and contribute to effecting solutions to the major, emergent health issues of our society and to contribute to the academic and clinical education of future practitioners. The graduate will be prepared to make valuable, ongoing contributions to society, healthcare, and the profession through leadership activities and collaborative efforts with others in physical therapy and professional education, practice, and research.

Program Goals and Expected Program Outcomes and Indicators

1. Students/Graduates will practice independent competent physical therapy.
 - Graduates will demonstrate the knowledge, skills, and abilities required for independent, competent physical therapy practice.
 - 100% of students will demonstrate entry-level performance by the completion of Practicum IV.
 - Graduates will achieve a 100% ultimate NPTE pass rate.
 - 100% of employers will agree or strongly agree that graduates are independent and competent practitioners on the annual employer survey.
 - Students/Graduates will demonstrate appropriate professional behavior.
 - 100% of students will demonstrate professional behaviors commensurate with each practical experience as measured by CPI items 2, 3, and 4.
 - 100% of employers will indicate that graduates demonstrate professional behaviors.
 - 100% of graduates will agree or strongly agree that they were well prepared to function independently as professionals in the physical therapy community.
2. Students will meet performance requirements of the MWU PT Program curriculum.
 - Throughout the didactic and clinical education portions of the curriculum, students will demonstrate the knowledge, skills, and abilities required to maintain good standing in the MWU PT Program.
 - 100% of students will produce a publishable-quality scholarly product.
 - 100% of students will demonstrate professional behavior by the end of the didactic curriculum.
3. Students/Graduates will contribute to and advocate for the health and wellness of society through education, consultation, and community outreach.
 - Students will develop, implement, and analyze a community outreach wellness program.
 - 100% of students will produce a professional-quality health promotion project.
 - 100% of students will deliver a critical analysis of a community health promotion program appropriate for a professional forum.
 - Students will utilize current best evidence to develop age-appropriate fitness prescriptions which can be used for education and consultation in the community.
 - 100% of students will develop a high-quality age-appropriate fitness plan for pediatric or geriatric clients.
 - Graduates will be capable of providing health and wellness services to the community through education, consultation, and community outreach.
 - 100% of employers will agree or strongly agree that graduates were well prepared to provide health and wellness services to the community.

- 100% of graduates will agree or strongly agree that they were well prepared to provide health and wellness services to the community on the graduate survey.
4. Students/Graduates will access, utilize, and contribute to the scientific literature for clinical decision-making.
 - Students will demonstrate the ability to access the scientific literature for clinical decision-making.
 - 100% of students will successfully access the scientific literature from multiple databases.
 - Students will demonstrate the ability to utilize scientific literature for clinical decision-making.
 - 100% of students will access, appraise, and apply scientific literature to answer a clinical question.
 - 100% of students will produce a high-quality project that utilizes and integrates scientific literature to support clinical decision making in case discussions.
 - 100% of students will prepare a matrix demonstrating their utilization of scientific literature to answer a clinical question.
 - Students/Graduates will demonstrate the ability to contribute to the scientific literature for clinical decision-making.
 - Each academic year, at least 3 scholarly products will be disseminated to a professional audience by students/graduates.
 5. Faculty members will be engaged in teaching, scholarship, and service.
 - Faculty will provide high quality teaching.
 - 100% of core faculty will receive an average score of agree or strongly agree on student instructor evaluations for the item "rate this instructor highly".
 - 100% of core faculty will meet or exceed expectations for teaching on annual performance evaluations.
 - Eligible core faculty will disseminate scholarly products on a regular basis.
 - 100% of eligible core faculty will disseminate at least one scholarly product every 2 years.
 - 100% of eligible core faculty will publish at least one article, book chapter, or other contribution every 3 years.
 - Eligible core faculty will provide service to the University and the profession.
 - 100% of core faculty will serve on at least 3 PT Program committees or subcommittees annually.
 - 100% of eligible core faculty will serve on at least 1 CHS or MWU committee every 3 years.
 - 100% of eligible core faculty will provide at least one form of professional service to organizations or the community every year.
 6. MWU PT Program will deliver an accredited, entry-level physical therapist education program using the highest standards of academic excellence which embraces the core values of the profession.
 - MWU PT Program will be in compliance with all accreditation standards.
 - Graduates will achieve a 100% ultimate NPTE pass rate.
 - 100% of graduates actively pursuing employment in a physical therapy setting will begin working within one year from completion of the MWU PT Program.
 - MWU PT Program will conduct comprehensive quality assurance reviews of the curriculum.
 - Graduates will demonstrate an average body system component score above the national average on the NPTE.
 - Graduates will demonstrate an average clinical practice component score above the national average on the NPTE.
 - MWU PT Program will complete a comprehensive curricular review every 3 years.
 - APTA's Core Values content will be explicit throughout the MWU PT Program curriculum.
 - 100% of the APTA Core Values will continue to be explicitly addressed throughout the curriculum

Time Limit for Completion of Coursework

The maximum allotted time for completion of the program is 51 months.

Admissions

The College of Health Sciences Physical Therapy Program considers for admission those students who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. To select these candidates, a competitive admissions framework has been established. Within this competitive admissions framework, multiple criteria are used to select the most qualified candidates from an applicant pool that exceeds the number of seats available.

The Midwestern University Physical Therapy Program uses the Centralized Application Service for Physical Therapy Schools (PTCAS) for students applying to the Program. All applicants to the Physical Therapy Program are required to submit their applications to PTCAS (<http://www.ptcas.org>) with all required materials by December 15. Please refer to the PTCAS website for instructions on submission of PTCAS application materials.

The Physical Therapy program operates on a rolling admissions basis in which completed applications are reviewed throughout the admissions cycle to determine applicant eligibility for interviews. Interviews are typically conducted during the winter and spring. Admission decisions are generally made within one month of the interview.

Admission Requirements

Students seeking admission to the Physical Therapy Program must submit the following documented evidence:

1. Completion of a bachelor's degree from a regionally accredited college or university
2. Minimum cumulative grade point average (GPA) of 3.00 and a minimum science GPA of 2.90 on a 4.00 scale
3. Completion of prerequisite courses totaling 40 semester/58 quarter credits as listed from regionally accredited colleges or universities
 - Grades of "C" or better (grades of "C -" are NOT acceptable) are required in each course
4. Minimum requirement of 30 hours of observation, volunteerism, or work in a physical therapy setting
5. Demonstration of a people or service orientation through community service or extracurricular activities
6. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences
7. Oral and written communication skills necessary to interact with patients and colleagues
8. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy
9. Passage of the Midwestern University criminal background check

Prerequisite Courses

Science Courses	
Biology with lab	4 Semester/6 Quarter hours
Human/Vertebrate Anatomy with lab	3 Semester/4 Quarter hours
Human/Vertebrate Physiology	3 Semester/4 Quarter hours
General Chemistry with lab	4 Semester/6 Quarter hours
General Physics with lab	8 Semester/12 Quarter hours
General Courses	
Math (college algebra or above)	3 Semester/4 Quarter hours
Statistics (should include inferential statistics)	3 Semester/4 Quarter hours
English--must include at least one composition course (oral communication/public speaking is recommended)	6 Semester/9 Quarter hours
Social & Behavioral Sciences (at least one course in psychology)	6 Semester/ 9 Quarter hours

Application Process and Deadlines

1. PTCAS Application

Applicants are required to submit their applications to PTCAS at <http://www.ptcas.org> by December 15th. Please refer to the PTCAS application instructions for specific details about completing the application, required documents, and processing time. The PTCAS application should be available for applicants beginning during the summer months. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their PTCAS application early in the cycle. Midwestern University operates on a rolling admissions basis where applications are reviewed throughout the admissions cycle.

2. Letters of Recommendation

Applicants are required to submit a minimum of two letters of recommendation from professionals to PTCAS (<http://www.ptcas.org>). The Office of Admissions will only accept letters of recommendation received directly from PTCAS. It is preferred that one letter is written by a science professor who has actually taught the student or a pre-health advisory committee. The second letter can be written by any one of the following: pre-health advisory committee, pre-health advisor, college professor, or healthcare professional (preferably a physical therapist) who knows the applicant well. The applicant should refer to the PTCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. Completed Applications

The Office of Admissions will send letters verifying receipt of PTCAS applications with all required materials to all applicants who meet the minimum cumulative science GPA of 2.90 and overall GPA of 3.00. The letters will also include instructions on checking the status of the required application materials online. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit completed applications with all required application materials will be considered for potential entrance into the Program.

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via e-mail, fax, or letter to:

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
Phone: 630/515-7200 or 800/458-6253
Fax: 630/971-6086
e-mail: admissil@midwestern.edu

Interview and Selection Process

When applicants are considered eligible for interviews after review of their completed admissions files, they are notified of available interview dates and invited by the Office of Admissions to schedule an on-campus interview.

A typical interview day involves participation in the following activities, which are coordinated by the Office of Admissions: an interview with at least one interviewer, lunch with current Midwestern University students, a campus tour, and an opportunity to meet with an admissions counselor and a representative from the financial aid office.

During interview sessions, the interviewer questions applicants about their academic, personal, and professional aspirations and preparedness for admission to the Program. The interviewer rates prospective students on a standardized evaluation form. These evaluations are included in the applicant files provided to the Physical Therapy Admissions Committee. The Physical Therapy Admissions Committee meets periodically to review the

files of applicants who have been interviewed. The Admissions Committee, which includes the Program Director, makes decisions for action with oversight from the Dean of the College of Health Sciences. The Dean, via the Office of Admissions, notifies each applicant in writing of the admission action/decision.

The Dean of the College of Health Sciences may recommend for an interview, applicants who meet the Program's minimum requirements for which they are applying (e.g. children of alumni, faculty, or staff). These applicants are not guaranteed admission into a Program and will have their application reviewed similarly to other applicants being considered for acceptance. All admissions decisions are made by the program Admissions Committee.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses. The candidate must be able to accurately auscultate lung/breath, heart and bowel sounds to complete the curricular requirement to individually complete physical examination of a patient/client.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to move at least 50 lbs. vertically and horizontally.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process. The candidate must agree to participate in touching/palpating on the skin and being touched/palpated on the skin by individuals regardless of gender in all academic settings, including manual techniques. These activities will take place in large and small group settings as directed in the College's curricular requirements.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply

for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Transfer Policy

The Physical Therapy Program does not allow transfer students.

Dual Acceptance Program-University of Saint Francis

The Physical Therapy Program has a dual acceptance agreement with the University of Saint Francis, Fort Wayne, IN. Students may inquire about the agreement through the Office of Admissions at the University of Saint Francis or Midwestern University.

Reapplication Process

Students who receive either a denial or an end-of-cycle letter may reapply for the following year's admissions cycle. Individuals contemplating reapplication should seek the advice of an admissions counselor, prior to reapplying.

To initiate the reapplication process, prospective students must complete and submit new applications and proceed through the standard application process.

Evaluation of Student Performance

Students in the Doctor of Physical Therapy Program are formally evaluated at appropriate intervals during the curriculum to assess and document satisfactory achievement of learning objectives and prescribed competencies. These evaluations occur on a regular basis at scheduled times during each course. Depending on the learning and competency outcomes objectives, these evaluations are designed to assess the level of knowledge, problem solving skills, psychomotor and clinical competencies and behavioral performances of students during each course and/or practicum. Students are graded on a numerical/alphabetical system using a standard grading scale, which is published in the Midwestern University catalog. Students are customarily provided access to grade reports after each examination, summarizing their performance on each test item. Students will be required to participate in competency-based evaluations at various intervals throughout their academic tenure.

Evaluation of clinical skills occurs throughout various stages of the curriculum and includes progressive assessments performed in academic courses using simulated situations and patients, including standardized patients. Evaluations of student performance during the clinical practical will be formal and will use established criteria developed by physical therapy clinical and academic educators.

Graduation Requirements

University graduation and degree conferral ceremonies are held in the spring of each year for the Physical Therapy Program. To qualify for the Doctor of Physical Therapy (DPT), students must:

1. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.750;
2. Satisfactorily complete the required minimum of 171.0* quarter credit hours in the curriculum;
3. Receive a favorable recommendation for the degree conferral from the Physical Therapy Academic Review Committee and the CHS Student Promotion and Graduation Committee;
4. Receive a favorable recommendation for the degree conferral from the University Faculty Senate;

5. Settle all financial accounts with the institution; and
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

*For students admitted prior to June 2023, refer to the published curriculum for Year 1 listed in the Midwestern University Catalog for the year in which you matriculated.

Licensure Requirements

After graduating from an accredited or approved physical therapist education program, a student must pass a national examination and meet licensure requirements of the state in which they wish to practice. The Midwestern University Physical Therapy Program curriculum has been designed to satisfy the criteria for approved physical therapy programs as stated in the Illinois Physical Therapy Act.

Midwestern University's Doctor of Physical Therapy program meets the educational requirements for licensure to practice as an physical therapist in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, U.S. Virgin Islands, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment.

Curriculum

Degree Type

Doctor of Physical Therapy (D.P.T.)

The total number of required quarter credits is 171. The first academic year of the professional doctoral curriculum includes four quarters consisting of 64 required course credits (quarter hours). The second academic year of the curriculum is composed of four quarters consisting of 52 required course credits, including 512 clock-hours of clinical education. The third academic year of the curriculum is composed of four quarters consisting of 55 required course credits which includes two clinical practica consisting of 800 clock-hours of clinical education. Clinical experiences take place in various facilities located throughout the continental United States that have legal agreements with the University.

The Midwestern University College of Health Sciences Physical Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.

Total Quarter Credits in the Professional Program: 171*

*For students admitted prior to June 2023, refer to the published curriculum listing in the Midwestern University Catalog for the year in which you matriculated.

First Professional Year

Summer Quarter

Course Code	Title	Credits
ANATD 1500	Human Gross Anatomy	5.0
BIOCD 1553	Cell and Tissue Structure and Function	2.0
PTHED 1503	Clinical Problem Solving I	2.0
PTHED 1509	Medical Terminology	0.5
PTHED 1511	Biopsychosocial Issues in Healthcare	3.0
PTHED 1512	Health Professionalism	2.0

Fall Quarter

Course Code	Title	Credits
CORED 1599D	Interprofessional Education I	1.0
PHYSD 1510	Human Physiology I	3.5
PTHED 1513	Physical Therapy Roles and Professional Issues I	2.0
PTHED 1515	Research Design and Methodology	3.0
PTHED 1552	Health Promotion I	2.0
PTHED 1577	Physical Therapy Evaluation I	4.0
PTHED 1582	Kinesiology/Biomechanics I	3.0

Winter Quarter

Course Code	Title	Credits
PHYSD 1511	Human Physiology II	3.5
PTHED 1514	Education Principles for Physical Therapists	3.0
PTHED 1521	Preparation for Clinical Education I	1.5
PTHED 1527	Clinical Conditions I	4.0
PTHED 1565	Physical Therapy Interventions I	2.0
PTHED 1584	Kinesiology/Biomechanics II	3.0

Spring Quarter

Course Code	Title	Credits
PTHED 1532	Human Neuroscience	3.5
PTHED 1545	Life Span Human Development	3.5
PTHED 1566	Physical Therapy Interventions II	3.0
PTHED 1578	Physical Therapy Evaluation II	4.0

Second Professional Year

Summer Quarter

Course Code	Title	Credits
PHYSD 1637	Exercise Physiology	3.0
PTHED 1628	Clinical Conditions II	3.0
PTHED 1633	Applied Neuroscience	3.0
PTHED 1667	Physical Therapy Interventions III	3.0
PTHED 1685	Practicum I	3.0

Fall Quarter

Course Code	Title	Credits
PTHED 1601	Cardiopulmonary Evaluation and Treatment	3.0
PTHED 1605	Clinical Problem Solving II	2.0
PTHED 1638	Physical Agents I	3.0
PTHED 1681	Neurologic Evaluation and Treatment: Adult I	5.0

Winter Quarter

Course Code	Title	Credits
PTHED 1602	Essentials of Pharmacology for Physical Therapists	2.0
PTHED 1608	Orthotics	2.0
PTHED 1622	Preparation for Clinical Education II	1.0
PTHED 1639	Physical Agents II	3.0
PTHED 1682	Neurologic Evaluation and Treatment: Pediatrics	4.0

Spring Quarter

Course Code	Title	Credits
PTHED 1607	Scholarly Development in Physical Therapy I	1.0
PTHED 1686	Practicum II	11.0

Third Professional Year

Summer Quarter

Course Code	Title	Credits
PTHED 1746	Topics in Pediatric Physical Therapy	2.0
PTHED 1747	Human Anatomy II	3.0
PTHED 1750	Topics in Physical Therapy Practice	3.0
PTHED 1751	Management in Physical Therapy Systems	3.0
PTHED 1781	Neurologic Evaluation and Treatment: Adult II	3.0

Fall Quarter

Course Code	Title	Credits
PTHED 1709	Clinical Problem Solving III	2.0
PTHED 1711	Prosthetics	2.0
PTHED 1715	Physical Therapy Roles and Professional Issues II	3.0
PTHED 1752	Applied Management Skills in Physical Therapy Systems	2.0
PTHED 1753	Health Promotion II	2.0
PTHED 1770	Advanced Musculoskeletal Evaluation and Treatment	4.0

Winter Quarter

Course Code	Title	Credits
PTHED 1787	Practicum III	12.0

Spring Quarter

Course Code	Title	Credits
PTHED 1708	Scholarly Development in Physical Therapy II	2.0
PTHED 1788	Practicum IV	12.0

Elective Options

Course Code	Title	Credits
PTHED 1400	Independent Study in Physical Therapy Practice	2.0
PTHED 1403	Clinical Application of Quantitative Gait Data in the Pediatric Population	1.0
PTHED 1404	Physical Therapy Management of Female Pelvic Floor Function	1.0
PTHED 1405	Research Elective	2.0
PTHED 1406	Biomechanical Foundations of Human Movement	2.0
PTHED 1409	Running: Movement Analysis, Injury Prevention and Rehabilitation	2.0
	Total Credits	171

Electives Policy and Eligibility

A. Advanced Elective Policy

1. The Physical Therapy Program offers full time students, who meet eligibility requirements, an opportunity to pursue special interests through advanced physical therapy electives. Eligible students interested in pursuing elective courses will have an opportunity to sign up for elective courses that may be offered during the third academic year.

B. Eligibility Requirements

Students who wish to participate in elective coursework must meet the following requirements:

1. Maintain a cumulative GPA of 3.0 at time of elective sign-up and when the course begins. In rare circumstances, the GPA requirement may be waived by the Program Director in consultation with the Course Coordinator.
2. Participate in no more than a total of 4 credit hours of elective coursework throughout the entire Physical Therapy curriculum.
3. Receive the permission of the faculty Course Coordinator (when required).

C. Eligible students will commit to the electives by the second week of the Spring quarter of the second year.

Student Academic Policies

Academic Progress

The academic standing of a student is determined by the student's cumulative grade point average. To progress to the next quarter, a student must satisfactorily complete all didactic courses and academic requirements for the preceding quarter.

Basic Life Support and First Aid Certification

Enrolled PT students must maintain First Aid and American Heart Association CPR certification at the basic life support (BLS) level.

Faculty

Deborah Anderson, PT, Ed.D.

Board-Certified Clinical Specialist in Pediatric Physical Therapy
Northern Illinois University
College of Education
Professor

Jane Borgehammar, PT, D.Sc, MS, FAAOMPT, Dip MDT

Board-Certified Clinical Specialist in Orthopedic Physical Therapy
University of Santo Tomas
College of Health Sciences
Clinical Instructor

Gabrielle Brazg, PT, DPT

Board-Certified Clinical Specialist in Neurologic Physical Therapy
Northwestern University
Co-Director of Clinical Education and Assistant Professor

Elizabeth Campione, PT, DPT, CLT-LANA

Board-Certified Clinical Specialist in Oncologic Physical Therapy
Northwestern University
Assistant Professor

Christine Conroy, PT, Ph.D., FNAP

Rosalind Franklin University
College of Health Professions
Professor

Thomas J. Dillon, PT, DPT, COMT

Board-Certified Clinical Specialist in Orthopedic Physical Therapy
Midwestern University
College of Health Sciences
Clinical Assistant Professor

Teri Elliott-Burke, PT, DPT

Board-Certified Clinical Specialist in Women's Health Physical Therapy
College of St. Scholastica
Clinic Coordinator and Clinical Associate Professor

Christian C. Evans, PT, Ph.D.

University of Illinois at Chicago
College of Medicine
Professor

Timothy A. Hanke, PT, Ph.D.

University of Connecticut
Department of Kinesiology
Professor

Judith Burton Hess, PT, D.H.S., Cert. DN

Board-Certified Clinical Specialist in Orthopedic Physical Therapy
Midwestern University
College of Health Sciences
Associate Professor

Kent Irwin, PT, D.H.S, M.S.

Board-Certified Clinical Specialist in Geriatric Physical Therapy
Midwestern University
College of Health Sciences
Professor

Sarah A. Keller, PT, DPT

Board-Certified Clinical Specialist in Neurologic Physical Therapy
St. Louis University
Doisy College of Health Sciences
Assistant Professor

Seth Kress, PT, DPT

Board-Certified Clinical Specialist in Orthopedic Physical Therapy
Rosalind Franklin University
College of Health Professions
Co-Director of Clinical Education and Assistant Professor

Joseph J. Krzak, PT, Ph.D.

Board-Certified Clinical Specialist in Pediatric Physical Therapy
University of Illinois at Chicago
College of Applied Health Sciences
Associate Professor

Janey Prodoehl, PT, Ph.D., C.C.T.T.

University of Illinois at Chicago
College of Applied Health Sciences
Professor College of Graduate Studies Faculty with Joint Appointments

Thomas M. Bodenstine, Ph.D.

University of Alabama at Birmingham

Assistant Professor Mae J. Ciancio, Ph.D.
Loyola University Chicago
Associate Professor

Erin Stephenson, Ph.D
Royal Melbourne Institute of Technology
Assistant Professor

Alexander J. Rosenberg, Ph.D
University of Illinois at Chicago
Assistant Professor

Courses

ANATD 1500: Human Gross Anatomy

This course consists of lectures, laboratory, and workshop sessions that emphasize the structure of the human body, the relationship between body structure and function, the clinical application of anatomical knowledge, and the use of human gross anatomy in physical diagnosis.

Credits 5.0

BIOCD 1553: Cell and Tissue Structure and Function

This course provides an introduction to cell and tissue biology and metabolism, focusing on the structure and function of normal human tissue and organs. The student gains a basic science framework to apply to physical therapy intervention. Application of this material helps students understand: 1) growth and development of human cells, tissues, organs and organ systems; 2) functional differences in cells, tissues, organs and organ systems; 3) tissue healing and repair; 4) response of tissue to therapeutic intervention.

Credits 2.0

CORED 1599D: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

PHYSD 1510: Human Physiology I

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body and develop an understanding of the physiologic responses to perturbations of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the properties of excitable cells and the function of the neuromuscular, cardiovascular, pulmonary, renal, digestive, endocrine and reproductive systems.

Credits 3.5

PHYSD 1511: Human Physiology II

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body and develop an understanding of the physiologic responses to perturbations of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the properties of excitable cells and the function of the neuromuscular, cardiovascular, pulmonary, renal, digestive, endocrine and reproductive systems.

Credits 3.5

PHYSD 1637: Exercise Physiology

Physiologic factors relevant to responses and adaptations to exercise across the life span are presented. Analysis of the metabolic, cardiorespiratory, and musculoskeletal systems to prescribe and grade exercise is emphasized. Workshops are utilized to facilitate integration of principles of exercise physiology with clinical practice.

Credits 3.0

PTHED 1400: Independent Study in Physical Therapy Practice

This course is designed to allow the student to be actively engaged in independent study of a topic of their choice after consultation with faculty. Student will analyze concepts and dynamics of the topic such as: ethical conflicts, certification issues, utilization, trends and patterns of practice, managed care issues, and roles of the PT with other healthcare providers. The student will utilize multiple resources to gather information on the topic including traditional evidence searches, professional interviews, and shadowing.

Credits 2.0

PTHED 1403: Clinical Application of Quantitative Gait Data in the Pediatric Population

Expanding on concepts covered in Kinesiology II and Lifespan Human Development, this elective will offer advanced understanding on the biomechanical assessment of gait (3-D kinematics, kinetics, and electromyography). Emphasis will be placed on the application of quantitative gait data for (1) clinical decision making and (2) evaluating outcomes of intervention in children with orthopaedic and neuromuscular disorders. Students will meet weekly with faculty to understand how quantitative gait data is collected and interpreted. Lab sessions will review physical examination measures used for children and instrumentation for 3-D gait analysis. A site visit will also be included at Shriners Hospitals for Children-Chicago where students will participate in data collection on a patient and attend an intervention planning session with orthopaedic surgeons.

Credits 1.0

PTHED 1404: Physical Therapy Management of Female Pelvic Floor Function

This course will offer an advanced understanding of the role of the female pelvic floor musculature and urinary incontinence. Students will meet weekly with faculty to increase their understanding of pelvic floor muscle exam, urinary incontinence and physical therapy interventions. Students will use a review of the literature to develop an examination and plan of care for patients presenting with urinary incontinence.

Credits 1.0

PTHED 1405: Research Elective

The research elective is designed to allow the student to plan and participate in a research project under the supervision of Midwestern University Physical Therapy faculty. Students are expected to work relatively independently and to make a substantial contribution to the overall research design, project implementation, data analysis or communication of findings on the project. However, it is recognized that the student is not the person primarily responsible for the project and that the faculty mentor supervises the student in their work.

Credits 2.0

PTHED 1406: Biomechanical Foundations of Human Movement

Expanding on concepts introduced in Kinesiology/Biomechanics I & II, this course provides students with an advanced account of the biomechanical factors underlying the coordination and control of movement. Emphasis is on the biomechanical methods for the analysis of human movement. A weekly lecture will highlight movement in terms of its kinetic, kinematic, and electromyographical aspects. Laboratory sessions will include introductions to motion analysis technology, force platforms, and electromyographic kinesiology.

Credits 2.0

PTHED 1409: Running: Movement Analysis, Injury Prevention and Rehabilitation

Students in this course will gain a greater understanding of the biomechanics and energetics of running as well as learn to perform dynamic gait analysis and basic running injury management techniques. Students will review the basic biomechanical principles underlying running and discuss how these may lead to running-related injuries. The metabolic, aerobic and anaerobic demands of running and strategies to improve performance and limit injury related to cramping, overuse and improper biomechanics are presented through readings, lecture and discussion.

Credits 2.0

PTHED 1503: Clinical Problem Solving I

This course introduces theoretical frameworks for clinical problem-solving and develops the student's level of clinical reasoning. Students analyze clinical problems by identifying critical cues, gathering information, developing hypotheses, testing hypotheses, and analyzing results. The concept of evidence-based practice is introduced to students as part of the clinical reasoning process. Accessing, organizing, using, and citing healthcare literature, assessing levels of evidence, and mapping clinical concepts are applied to physical therapist practice.

Credits 2.0

PTHED 1509: Medical Terminology

This course provides a basic introduction to medical terminology with a focus on body systems. Students complete 13 online self-study modules that incorporate recognition and assessment of medical terms. Assessment of student learning occurs through a series of 13 self-paced quizzes. This course is required early in the curriculum to facilitate communication in subsequent courses and clinical assignments.

Credits 0.5

PTHED 1511: Biopsychosocial Issues in Healthcare

This course is designed to introduce the student to 1) the biopsychosocial model of health, introducing the WHO International Classification of Disability, Functioning and Health (ICF) model, and 2) the patient-centered model of healthcare service delivery. Students will explore the basics of the patient-provider relationship, including effective communication, empathy, patient motivation, enhancing patient adherence, and encouraging healthy behaviors. Within the patient-centered care model, special emphasis will be given to working with individuals who have a disability, across the life span. The importance of a family-centered care approach in working with children and consideration of caregiver issues will be addressed.

Credits 3.0

PTHED 1512: Health Professionalism

This course provides an introduction to professional behavior, healthcare systems, issues in healthcare delivery, and healthcare team members. The perspective of the patient/client is emphasized. Principles of confidentiality, professional ethics, standards of practice, patient rights, and the Guide to Physical Therapist Practice are discussed.

Credits 2.0

PTHED 1513: Physical Therapy Roles and Professional Issues I

This course introduces the multiple roles of the physical therapist across the healthcare delivery system as a patient care provider, educator, supervisor, and culturally competent professional. Implications of these roles for physical therapy practice are discussed. Current issues in physical therapist practice: regulation and healthcare payment, legal and ethical standards, supervision, and standards of practice are analyzed. The role of the physical therapy professional association in on-going professional development is discussed.

Credits 2.0

PTHED 1514: Education Principles for Physical Therapists

This course provides the foundation for systematically designing, implementing and evaluating learning experiences used in the education of patients, students, colleagues, community members, and self. Students will gain knowledge in the role of the healthcare professional in education, principles of learning, teaching and learning modules, learning needs, goals setting, writing behavioral objectives, instructional strategies, strategies for group facilitation, patient and family education, and teaching in both the clinical and academic settings.

Credits 3.0

PTHED 1515: Research Design and Methodology

This course is a basic introduction to research design and methodology. It is intended to teach students the basic principles of the research process. Topics covered in this course will enable students to critically evaluate papers in clinical and basic science research. This course consists of a shared interprofessional lecture session and a separate workshop session for the PT students. Within the PT Workshop, students will integrate content learned from the main session and apply it to issues pertinent to physical therapy practice.

Credits 3.0

PTHED 1521: Preparation for Clinical Education I

This course is the first of two courses in the Preparation for Clinical Education series. In a controlled safe environment with simulated and real-life patients, students practice skills in communication, time management, patient evaluation and intervention, infection control/standard precautions, mobility training, and patient education. This course provides opportunities to appreciate the perspective of patients/families on changes in health and healthcare delivery. Students are oriented to and plan for Practicum I, a three-week full-time supervised clinical practice in a healthcare environment.

Credits 1.5

PTHED 1527: Clinical Conditions I

This course introduces students to general pathology including environmental and genetic causes of disease as well as molecular, cellular, organ and whole body effects of common disorders. Speakers discuss the diagnosis and medical and surgical management of patients with common disorders seen in physical therapy practice. In addition, the course introduces students to medical imaging theory and application.

Credits 4.0

PTHED 1532: Human Neuroscience

The first of two neuroscience courses, this course develops students' ability to identify and describe the principal structural components and corresponding functions of the nervous system. Emphasis is on the nervous system structures and processes which support perception and action including somatosensation, visual, auditory, and vestibular systems, and spinal, sub-cortical, and cortical roles in the coordination and control of movement. Students will begin to relate structural components with function and correlate lesions in sensory and motor systems with neurological deficits seen in clinical practice.

Credits 3.5

PTHED 1545: Life Span Human Development

Inter-relationships of physical, psychological, and social development across the life span are examined and related to physical therapy patient management. Development of functional movement and of the body systems supporting movement are analyzed. Standardized motor and functional assessment instruments for specific age groups are reviewed and selected tests administered. Students design wellness/fitness programs for infants, children, adolescents and older adults.

Credits 3.5

PTHED 1552: Health Promotion I

This course will provide a conceptual framework for health promotion and disease/injury prevention which includes an interprofessional model to provide optimal health for people, animal, plant and environmental health. The foundation for the conceptual framework is built on public health policy and basic epidemiological principles. Course content focuses on definitions of health promotion and disease/injury prevention, risk and its relation to disease, assessment of risk, interventions to minimize risk/promote health, constraints to health education programming and compliance issues, health promotion and disease/injury prevention issues after disability and evaluation of health promotion and disease/injury prevention programs.

Credits 2.0

PTHED 1565: Physical Therapy Interventions I

This course covers the design, implementation, and modification of basic interventions for existing/potential mobility problems at both the impairment and disability levels. Selected principles of and techniques for body mechanics, patient handling, positioning and draping, bed mobility, transfers, gait, wheelchair prescription and mobility, positional/transitional equipment use, bandaging, range-of-motion exercise, and soft tissue treatment are addressed.

Credits 2.0

PTHED 1566: Physical Therapy Interventions II

This course continues the series of courses focused on intervention strategies and provides students with the theoretical principles and skills of therapeutic exercise and joint mobilization. Course content includes isometric, isotonic, isokinetic, eccentric and concentric strengthening activities; active and passive stretching, proprioceptive neuromuscular facilitation (PNF); principles of musculoskeletal treatment, joint mobilization, and relaxation/mindfulness.

Credits 3.0

PTHED 1577: Physical Therapy Evaluation I

This course provides the foundation for physical therapy evaluation including history, systems review, tests/measures, prognosis, differential diagnosis, physical therapy impression, identification of patient problems, goals and intervention plans. Students gain skill in patient questioning and history taking, examination of pain, vital signs, posture, palpation skill, anthropometric and goniometric measurement, manual muscle strength testing, sensory examination and documentation skills.

Credits 4.0

PTHED 1578: Physical Therapy Evaluation II

This course builds on the principles introduced in Physical Therapy Evaluation I, focusing on the identification of dysfunction in specific regions of the body including the upper and lower limbs, the spine, pelvis and the temporomandibular joint using special tests, joint examination procedures, strength testing devices, functional assessment and neurovascular evaluation. Students select appropriate special tests and examination procedures to identify musculoskeletal diagnoses.

Credits 4.0

PTHED 1582: Kinesiology/Biomechanics I

This course addresses the recognition, description and analysis of the components of normal movement in static and dynamic activities, applying basic theories of mechanics of normal tissue, structure and properties of connective tissue, and general joint relationships. Normal joint mechanics for the shoulder, elbow, wrist and hand, and interrelationships between the anatomical structure and the normal kinematic behavior of joints are discussed. Theories of motor learning and motor control influencing activity of the musculoskeletal system are introduced. Lecture, lab, and movement analysis project facilitate learning.

Credits 3.0

PTHED 1584: Kinesiology/Biomechanics II

This course is a continuation of the principles and theories introduced in Kinesiology/Biomechanics I. Students will be able to recognize and describe basic theories of mechanics and the components of normal movement in static and dynamic states as it relates to the spine, temporomandibular joint, lower extremity, and gait activities. Course content includes the interrelationships between anatomical structure and normal kinematic behavior of joints, muscle function, and human gait. Also, foundations for analyzing and identifying the components of gait are covered.

Credits 3.0

PTHED 1601: Cardiopulmonary Evaluation and Treatment

This course will provide students with a comprehensive background in the anatomy, physiology, and pathology of the cardiovascular and pulmonary systems. These concepts, along with general principles of physical therapy intervention, will then form the basis for physical therapy management of people with cardiopulmonary (CP) disorders. Issues such as the effect of exercise training on the CP system and contraindications for PT are presented and discussed.

Credits 3.0

PTHED 1602: Essentials of Pharmacology for Physical Therapists

This course introduces students to pharmacological intervention in patient management. The course describes basic drug-receptor interactions, dose-response curves and absorption, distribution, metabolism, excretion, and storage of drugs within the body.

Credits 2.0

PTHED 1605: Clinical Problem Solving II

This course is designed to reinforce and enhance the reasoning process used to make clinical decisions. The course includes in depth analysis of planning the history gathering process, planning the tests and measures including a formal functional outcome assessment, forming a physical therapy impression, developing an intervention plan and re-evaluation plan as applied to a patient with a musculoskeletal condition. Communication to physicians regarding clinical impressions is also included.

Credits 2.0

PTHED 1607: Scholarly Development in Physical Therapy I

This course consists of participation and presentation in a "professional" journal club related to physical therapy. The course meets once/quarter starting in the first spring, and runs through the second winter of the program. Journal club meetings consist of review and discussion sessions of scientific evidence (journal articles) led by students. The journal club provides exposure to a variety of research designs.

Credits 1.0

PTHED 1608: Orthotics

This course introduces students to the use of orthoses to improve function as a result of impairment of the upper extremity, lower extremity, or spine. Components, materials, design, fabrication, fitting, alignment, prescription, training, and total patient management are discussed. Emphasis is placed on lower extremity orthotics, development of basic analytical and psychomotor skills for adapting tools, equipment, environments, and activities to enhance function as well as design and fabrication of orthoses.

Credits 2.0

PTHED 1622: Preparation for Clinical Education II

This course continues discussion of concepts of written and oral professional communication and provides opportunities for practice of skills in communication, time management, supervision and delegation, patient evaluation, infection control/universal precautions, cardiopulmonary resuscitation/first aid, mobility training, and patient education in simulated physical therapy practice environments. It also provides the opportunity to appreciate the perspective of patients/families.

Credits 1.0

PTHED 1628: Clinical Conditions II

Students learn about the medical management of central nervous system, cardiovascular and pulmonary disorders as well as other common conditions. Risk factors, clinical signs and symptoms and differential diagnoses are some of the issues addressed. Lectures are combined with weekly problem-based learning sessions to promote critical thinking and an evidence-based approach to treatment.

Credits 3.0

PTHED 1633: Applied Neuroscience

This second course in neuroscience develops students' ability to understand the clinical relevance and applications of neuroscience to physical therapy. Topics include neuropharmacology, autonomic nervous system, limbic system, higher cortical functions such as cognition, memory, and learning, and neuroplasticity and motor learning. Neural control of locomotion, balance, and coordination are considered. Theories of motor control are introduced and discussed along with foundational concepts in neuroscience to inform directives for physical therapy examination and treatment interventions.

Credits 3.0

PTHED 1638: Physical Agents I

This course addresses the theoretical principles of physiological and neurophysiological changes that occur as a result of the application of physical modalities. Students will develop skill in application of these modalities including superficial/deep heating agents, cold agents, light therapies and external compression. Content includes manipulation of agent parameters in order to perform an effective and efficient treatment given patient variables. In addition, the course addresses the evaluation and care of the integument system including wound care and lymphatic conditions.

Credits 3.0

PTHED 1639: Physical Agents II

This course is a continuation of Physical Agents I addressing application of additional physical agents, and introducing electrotherapeutic modalities that are used in physical therapy practice. Electrotherapy for muscle strengthening, improved function, motor control, pain management and surface electromyography is discussed with emphasis on manipulation of equipment parameters for safe and effective application of these modalities. Electrophysiologic evaluation in physical therapy practice is introduced as well as basic principles of aquatic therapy.

Credits 3.0

PTHED 1667: Physical Therapy Interventions III

This is the third course in the Physical Therapy Intervention series. This course builds on the principles of developing intervention plans of therapeutic exercise and/or non-thrust joint mobilization previously introduced in Physical Therapy Interventions II. This course applies those principles to areas of the body not previously covered including the spinal, temporomandibular, pelvic and lower extremity joints. In addition, clinical conditions affecting these areas of the body will be discussed as they relate to developing physical therapy intervention plans.

Credits 3.0

PTHED 1681: Neurologic Evaluation and Treatment: Adult I

This is the first of three courses introducing the assessment and treatment of impairments, activity limitations, and participation restrictions in persons with neurologic dysfunction. This course focuses on adults with CVA, TBI, PD or vestibular disorders. Using a motor control framework and the Guide to Physical Therapist Practice, students will learn to select, perform, interpret, and modify examination procedures and evidence-based interventions, techniques, and compensatory strategies in the attainment of functional goals.

Credits 5.0

PTHED 1682: Neurologic Evaluation and Treatment: Pediatrics

This is the second of three courses introducing students to the assessment and treatment of impairments, activity limitations, and participation restrictions in patients with neurologic dysfunction. This course focuses on children with hypertonia (cerebral palsy), hypotonia (Down's syndrome), and spinal cord injury (myelomeningocele). Students will learn, select, perform, interpret, and modify age-appropriate examination procedures, as well as, intervention strategies within a family-centered environment. Lecture, lab, a clinical observation experience, and a group case project will facilitate learning.

Credits 4.0

PTHED 1685: Practicum I

This course is a three-week, full-time, supervised clinical experience in a healthcare environment. Students practice skills in communication, patient evaluation and management, infection control/standard precautions, and patient education.

Credits 3.0

PTHED 1686: Practicum II

This course is a ten week, full-time, supervised clinical practice in a healthcare environment. Students earn 1 credit for each 40 hour week of clinic work. The course includes a project on serving underserved populations and/or cultural competence in healthcare. Students earn 1 credit for the project.

Credits 11.0

PTHED 1708: Scholarly Development in Physical Therapy II

Students develop an evidence-based, detailed, and publishable quality manuscript for either an experimental design project, a systematic review, or case report. For the experimental design projects and the systematic reviews, students will work under the guidance of the faculty advisor beginning in the winter quarter of the first year. For the case report, students meet with their faculty advisor prior to Practicum II regarding selection of a patient and expectations of the report. After the final written report is accepted, projects are presented orally as either a platform or poster presentation.

Credits 2.0

PTHED 1709: Clinical Problem Solving III

This is the last course in a 3 course series, designed to reinforce and enhance the reasoning process used to make clinical decisions. In this course, clinical problem solving and patient management decisions focus on children and adults who present with complex medical conditions. To facilitate knowledge synthesis and application, this course will include complex patient cases requiring online and in-class activities, critical appraisal of evidence, and the development of a plan for successful completion of the NPTE exam.

Credits 2.0

PTHED 1711: Prosthetics

This course introduces students to the use of upper and lower extremity prostheses. Components, materials, design, fitting, alignment, prescription, training, and total patient management are discussed. Emphasis is placed on lower extremity prostheses, development of basic analytical and psychomotor skills for adapting tools, equipment, environments, and activities to enhance function. A combination of lecture, discussion, laboratory, and group projects are used to achieve the course objectives.

Credits 2.0

PTHED 1715: Physical Therapy Roles and Professional Issues II

This is the second of two courses which facilitate the student's understanding of the roles of the physical therapist and current professional issues. This course builds on previous coursework in patient/client management, educational principles, management and supervision, and administration, Preparation for Clinical Education I and II as well as Practica I and II. Focus is on the role of the physical therapist as a supervisor, a consultant, clinical educator and contributor to the professional body of knowledge. The impact of a variety of professional issues on healthcare and physical therapy practice are discussed. Issues related to the transition from the professional preparation program to clinical practice are discussed.

Credits 3.0

PTHED 1746: Topics in Pediatric Physical Therapy

This course introduces principles of physical therapy practice with children and expands on pediatric physical therapy patient/client management introduced in earlier courses. This course will cover topics relevant to pediatric practice in three broad areas: pediatric settings (NICU, EI, school, outpatient rehabilitation), laws governing pediatric practice (IDEA parts B & C), and management of conditions frequently seen by pediatric physical therapists. The course will focus on the comprehensive physical therapy management of children who present with: juvenile rheumatoid arthritis, osteogenesis imperfecta, Duchenne muscular dystrophy, torticollis, brachial plexus injury, genetic disorders, orthopedic conditions, and pediatric sports injuries. Lectures, labs, case studies, and group projects facilitate learning in this course.

Credits 2.0

PTHED 1747: Human Anatomy II

This lab based course will examine, in detail, the anatomical structures of the extremities, head and trunk. Bones, joint structures, muscles, nerves and vessels and their relationship to joint movement and function will be emphasized. Information about these structures and their function will be applied to clinical issues that relate to human movement, structural impairment and physical therapy assessment and treatment. Self-directed learning is an expectation of this course.

Credits 3.0

PTHED 1750: Topics in Physical Therapy Practice

This course addresses practice issues in three broad categories. Principles of critical inquiry are applied to clinical decision making skills when evaluating different approaches to physical therapy. Students research and present the strengths and weaknesses of varied approaches (i.e., kinesiotaping, rolfing, Tai Chi, ASTYM, ankle and knee bracing, etc.). The second category explores practice issues related to industrial medicine, women's health, pelvic floor dysfunction, chronic pain and joint replacement. The third category discusses evaluation and intervention for older adults.

Credits 3.0

PTHED 1751: Management in Physical Therapy Systems

This is the first of two courses devoted to management in physical therapy settings. The course provides a foundation in healthcare environments and delivery systems, personnel management, organizational structures and systems, supervision, leadership, fiscal management, reimbursement and documentation, sales and marketing, legal issues, risk management and outcomes measurement and management.

Credits 3.0

PTHED 1752: Applied Management Skills in Physical Therapy Systems

Students apply principles from [PTHED 1751: Management in Physical Therapy Systems](#). Structured around the development of a strategic plan for a rehabilitation product or service, this course includes forming and integrating organization, marketing, sales, management, production/service, financial and evaluation strategies. Student teams design a strategic plan provided by community facilities. Students present their strategic plans via a written report and an oral presentation.

Credits 2.0

PTHED 1753: Health Promotion II

In this course students apply principles presented in Health Promotion I and principles of teaching and learning. The students plan, implement, and evaluate a health promotion and/or disease/injury prevention program for a community group in need of wellness or prevention services under the guidance of a faculty mentor. Each group provides an oral presentation to their classmates focusing on an in-depth analysis of the strengths and weaknesses of their program. This class is a combination of independent study and discussion.

Credits 2.0

PTHED 1770: Advanced Musculoskeletal Evaluation and Treatment

This is the final course addressing advanced issues in individuals with musculoskeletal dysfunction. This course builds on previous content and unites evaluation and intervention of patients with complex spinal and extremity musculoskeletal problems including pre- and post-surgical situations. Course content will also promote application of concepts introduced earlier the curriculum including pain science, pharmacology and imaging to advance clinical decision making and evaluation and intervention planning. Additional course content includes task specific performance evaluation and training, return to play decision making, and health and wellness and fitness screening.

Credits 4.0

PTHED 1781: Neurologic Evaluation and Treatment: Adult II

This final course in the neurologic evaluation and treatment series continues the focus on the assessment and treatment of impairments, activity limitations, and participation restrictions in adults with neurologic dysfunction. Management of persons with spinal cord injury, cerebellar dysfunction, progressive neurological disorders, and headaches/concussion symptoms is discussed. Application of examination and treatment process will be considered through a case scenario format. Students will be expected to develop and execute treatments for patients with dysfunction.

Credits 3.0

PTHED 1787: Practicum III

This course is a ten-week, full-time, supervised clinical practice in a healthcare environment. Students earn 1 credit for each 40 hour week of clinic work. The course includes an independent study component that utilizes evidence based practice to answer a clinical question. Students earn 1 credit for the evidence based practice project. For either Practicum III or Practicum IV, this course will also include a written reflection regarding interprofessional practice within clinical education.

Credits 12.0

PTHED 1788: Practicum IV

This course is a ten-week, full-time, supervised clinical practice in a healthcare environment. Students earn 1 credit for each 40 hour week of clinic work. The course includes an independent study component that utilizes evidence based practice to answer a clinical question. Students earn 1 credit for the evidence based practice project. For either Practicum III or Practicum IV, this course will also include a written reflection regarding interprofessional practice within clinical education.

Credits 12.0

Occupational Therapy Program

Mission

The Occupational Therapy Program is dedicated to excellence in the education of occupational therapists, and the development of a community of practice leaders who will meet the occupational needs of individuals and communities through compassionate, innovative, and evidence-informed practice.

Accreditation

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE's telephone number c/o AOTA is (301) 652-AOTA and its web address is

www.acoteonline.org.

Midwestern University is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411.

Degree Description

The Occupational Therapy Program offers a curriculum leading to the Doctor of Occupational Therapy (OTD) degree for qualified students. The full-time, continuous, entry-level doctoral curriculum is designed to deliver the academic and clinical education required to prepare students for their professional role as key members of the healthcare team, and as integral practitioners in the healthcare delivery system. The curriculum for the Doctor of Occupational Therapy degree is a continuous, full-time program, extending 33 months from matriculation to graduation. The maximum allotted time for completion of this program is 49.5 months. It is also required that all Level II fieldwork and doctoral experiential internship requirements must be fulfilled within 16.5 months of completion of the didactic portion of the program.

The Doctor of Occupational Therapy Program offers a balanced combination of foundational, clinical, research and experiential coursework designed to foster therapists who are self-directed, thoughtful, and caring professionals. Approximately two thirds of the 160 curriculum credits are devoted to courses that are centered on the processes and practice of occupational therapy, including fieldwork experiences and the doctoral capstone and internship courses. The remaining one third of the credits include content focused on research, leadership and professional development, and program development. Fieldwork Level I experiences are simultaneous with the occupational therapy practice courses to emphasize psychosocial contributions to occupational engagement. This strong curricular framework succeeds in preparing graduates who are practice leaders in occupational therapy.

The Occupational Therapy Program is open on a competitive admission basis to applicants who have received a bachelor's degree in any field, but who have not completed an accredited occupational therapy program. The Program does not accept students who transfer from another Occupational Therapy Program. The curriculum is designed to prepare entry-level practitioners to provide occupational therapy services in the home, community, and clinical practice settings that require independent judgment, leadership, and self-directed practice. The educational experiences provide the foundation for graduates to identify and contribute to effecting solutions to the major emergent health issues of society and to contribute to the academic and clinical education of future occupational therapy practitioners. The curriculum is designed to prepare graduates for varied roles within occupational therapy, such as practitioner, manager, educator of consumers and peers, and foster leadership roles as faculty, consultant, or entrepreneur. The graduate will be well-prepared to make meaningful, ongoing contributions to individuals, groups, communities, and the profession through collaborative efforts with others in occupational therapy and interdisciplinary education, practice, and research.

Program Objectives

Upon completion of the Occupational Therapy Doctorate program, graduates are expected to:

1. Deliver evidence-informed, occupation-based and occupation-focused services to individuals and groups to promote health, well-being and quality of life
2. Meet the occupational needs of culturally and socially diverse individuals and communities through advocacy and leadership
3. Develop and implement innovative programs for occupational therapy services in traditional and emerging areas of practice
4. Engage in clinical research to facilitate promotion and dissemination of knowledge
5. Uphold the ethical standards, values and attitudes of the occupational therapy profession in one's work, service, and ongoing professional development

These outcomes are accomplished through:

1. A curriculum model based on intentionally sequenced courses that serve as vital links between application, synthesis, and evaluation of knowledge, skills, and attitudes.

2. Intentional dynamic integration of authentic clinical experiences across the curriculum.
3. Critical application of current research and available evidence to improve occupational therapy practice and contribute to the knowledge base of the profession.
4. Occupation-focused coursework and fieldwork experiences designed to embrace critical and ethical reasoning across the lifespan.
5. Collaboration to facilitate individual and group work to develop leadership, team building, and professional skills, behaviors and attitudes.

Admissions

The College of Health Sciences Occupational Therapy Program considers for admission those applicants who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. To select these candidates, a competitive admissions framework has been established. Within this competitive admissions framework, multiple criteria are used to select the most qualified candidates from an applicant pool that exceeds the number of seats available. Interested individuals are advised to complete their application as early as possible to ensure timely consideration.

The Midwestern University Occupational Therapy Program uses the Centralized Application Service for Occupational Therapy Schools (OTCAS) for students applying to the Program. All applicants to the Occupational Therapy Program are required to submit their applications to OTCAS (<http://www.otcas.org>) with all required materials by February 1, 2024. Please refer to the OTCAS website for instructions on submission of OTCAS application materials. The Occupational Therapy Program operates on a rolling admissions basis in which completed applications are reviewed throughout the admissions cycle to determine applicant eligibility for interviews. Interviews are typically conducted during the winter and spring quarters. Admissions decisions are generally made within one month of the interview.

Admission Requirements

Individuals applying for admission to the College of Health Sciences Occupational Therapy Program must submit documentation for the following minimum requirements before the academic year commences for the incoming class:

1. Completion of a baccalaureate degree from a regionally accredited college or university.
2. A minimum cumulative undergraduate grade point average (GPA) of 3.00 on a 4.00 scale. Grades of C or better for prerequisite coursework; grades of C- are not acceptable.
3. Completion of the minimum number of prerequisite courses in the prescribed subject areas at regionally accredited colleges or universities.
4. Satisfaction of the standards set forth by the Admissions Committee (including documentation of academic and professional promise in prospective students).
5. Completion of the Occupational Therapy Program's interview process. On-campus interviews are by invitation only. Applicants are invited to an interview based on evidence supportive of excellence in:
 - Academic achievement
 - Oral and written communication skills
 - Articulation of the domain and scope of OT practice
 - Community service
 - Leadership in extracurricular or other activities
6. Completion of a first aid course within the three years prior to enrollment.
7. Current certification by the American Heart Association in Basic Life Support (BLS) for Health Care Providers.
8. Demonstration of a people or service orientation through community service or extracurricular activities.

9. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.
10. Oral and written communication skills necessary to interact with clients and colleagues.
11. Commitment to abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.
12. Passage of the Midwestern University criminal background check.

Prerequisite Courses*

Students must complete these courses with a grade of C or better; grades of C- are not acceptable:

Course	Sem/Hrs
Human Anatomy ^{1,2}	3 Sem/4 Qtr hrs
Physiology ¹	3 Sem/4 Qtr hrs
Statistics	3 Sem/4 Qtr hrs
Lifespan Development	3 Sem/4 Qtr hrs
Abnormal Psychology	3 Sem/4 Qtr hrs
Other Social and Behavioral Science	3 Sem/4 Qtr hrs

¹The Anatomy and Physiology requirements may also be fulfilled by taking Anatomy and Physiology I and Anatomy and Physiology II, as some universities offer combined courses.

²Human Anatomy must be completed successfully within 5 years of admission to the Program. The lab component with cadaver experience is strongly recommended.

A course in child development, and a course in the sociology or psychology of aging, are highly recommended. Additional courses in the sciences and mathematics are recommended, including chemistry, physiology, physics, and biology. General education electives are also recommended to demonstrate competency in English composition, oral communication, problem-solving behavior, logic, and ethical theories.

*The Midwestern University OTD Program will not accept Advanced Placement credits for fulfillment of prerequisite coursework.

*Upon admission to the Midwestern University OTD Program, students must complete all coursework through the OTD Program. The Midwestern University OTD Program does not allow for transfer of credits, nor does it award credits for experiential learning or previous educational or work experience.

Application Process and Deadlines

To be considered for admission to the Occupational Therapy Program, applicants must submit the following to the Office of Admissions:

1. OTCAS Application

Applicants are required to submit their applications to OTCAS at <http://www.otcas.org> by February 1, 2024. Please refer to the OTCAS application instructions for specific details about completing the application, required documents, and processing time. The OTCAS application should be available for applicants beginning in Summer 2023. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their OTCAS application early in the cycle.

2. Letters of Recommendation

Applicants are required to submit a minimum of two letters of recommendation from professionals to OTCAS (<http://www.otcas.org>). The Office of Admissions will only accept letters of recommendation received

directly from OTCAS. It is preferred that one of the submitted letters is written by an occupational therapist who has supervised or mentored the applicant or a professional who can speak to the applicant's motivation, experiences in occupational therapy, or readiness for entering the Occupational Therapy Program. The second letter can be written by either a college professor who actually taught the student or a pre-health advisor who knows the applicant well. The applicant should refer to the OTCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. Completed Applications

The Office of Admissions will send letters verifying receipt of OTCAS applications with all required materials to all applications who meet the minimum cumulative GPA requirement of 3.00. The letters will also include instructions on checking the status of the required application materials online. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit completed applications with all required application materials will be considered for potential entrance into the Program.

Please note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via e-mail, fax, or letter to:

Midwestern University
Office of Admissions
555 31st St. Downers Grove, IL 60515
Fax: 630/971-6086
admissil@midwestern.edu

Interview and Selection Process

Students selected for an interview will be notified of available interview dates and invited by the Office of Admissions to schedule their on-campus interview. A typical interview day involves participation in the following activities, which are coordinated by the Office of Admissions: an interview with two occupational therapy faculty interviewers, lunch with current Midwestern University occupational therapy students, a campus tour, and an opportunity to meet with counselors from the admissions office and the financial aid office.

During each interview session, the interviewers question the applicant about their academic, personal, and professional aspirations and preparedness for admission to the Occupational Therapy Program, and rate prospective students on a standard evaluation form. These evaluations are included in applicant files provided to the Occupational Therapy Admissions Committee. The Occupational Therapy Admissions Committee meets approximately one to two weeks after the interviews. The Admissions Committee, which includes the Program Director, makes decisions for action with oversight from the Dean of the College of Health Sciences. The Dean, via the Office of Admissions, notifies applicants in writing of the admission action/decision. Applicants are extended acceptance to the program based on the aggregate qualitative and quantitative data gathered from the application, interview process, and the completion of all published admissions requirements.

The Dean of the College of Health Sciences may recommend for an interview applicants who meet the Program's minimum requirements for which they are applying (e.g., children of alumni, faculty, or staff). These applicants are not guaranteed admission into a Program and will have their application reviewed similarly to other applicants being considered for acceptance. All admissions decisions are made by the program Admissions Committee.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment and the consistent, prompt completion of all responsibilities and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least four weeks prior to matriculation (or if admitted later, within one week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Reapplication Process

Students who receive denial or end-of-cycle letters may reapply for the following year's admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit a new application and proceed through the standard application process.

Evaluation of Student Performance

Students in the Doctor of Occupational Therapy Program are formally evaluated at appropriate intervals during the curriculum to assess and document satisfactory progress and achievement of learning objectives and prescribed competencies. These evaluations occur on a regular basis at scheduled times during each course. Depending on the learning and competency outcome objectives, these evaluations are designed to assess the

level of knowledge, problem-solving skills, psychomotor and clinical competencies, and behavioral performances of students during each course and/or fieldwork experience. Evaluation methods vary, depending on the course or experiential learning opportunity, and may include formal examinations, written essays, portfolio assignments, design and fabrication projects, psychomotor skill checks, or other methods of determining the extent to which each student has mastered the course content and skill competencies. Student performance in formal examinations is graded on a numerical/alphabetical system using a standard grading scale, which is published in this catalog and the Midwestern University Student Handbook. Students are customarily provided with feedback and grade reports after each examination summarizing their performance on each test item. Students will be required to participate in competency-based evaluations at various intervals throughout their academic tenure.

Evaluations of student performance during the Fieldwork II experiences are formalized using standard evaluation tools established by the American Occupational Therapy Association. In keeping with the Program's mission to exceed national standards, the Occupational Therapy Program reserves the right to augment the performance criteria required to successfully complete the Fieldwork Level II courses.

Evaluations of student performance during the Doctoral Internship and Capstone projects are formalized on a project-by-project basis consistent with the individualized nature of this final segment of the Doctor of Occupational Therapy curriculum. Student performance is evaluated based on faculty mentor and on-site mentor input.

Graduation Requirements

To qualify for the Doctor of Occupational Therapy degree (OTD), students must:

1. Satisfactorily complete all courses with a minimum cumulative GPA of 3.00 or higher;
2. Satisfactorily complete the required minimum number of 160 credit hours in the curriculum;
3. Receive a favorable recommendation for Doctorate degree conferral from the Program faculty to the Program Student Academic Review Committee and from this committee to the CHS Student Promotion and Graduation Committee;
4. Receive a favorable recommendation for Doctorate degree conferral from the University Faculty Senate;
5. Settle all financial accounts with the University; and
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Licensure Requirements

Occupational Therapy is a registered and/or licensed profession in all 50 states. To become licensed to practice as an occupational therapist in most states (including Illinois), a student must graduate from an ACOTE-accredited or approved educational program and pass the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). Most states (including Illinois) require status as an occupational therapist registered (OTR) to become a licensed occupational therapist (OTR/L). A prior felony conviction may affect a graduate's ability to sit for the NBCOT Certification Exam or attain state licensure.

Midwestern University's Doctor of Occupational Therapy program is designed to meet the educational requirements to meet the licensure requirements to practice as an occupational therapist in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

The Doctor of Occupational Therapy program curriculum has not made a determination if the program meets the requirements in the territory of the U.S. Virgin Islands.

Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment.

Curriculum

Degree Type

Doctor of Occupational Therapy (O.T.D.)

The professional doctorate curriculum is composed of 45 required course credits (quarter hours) for the first calendar year, 60 required course credits for the second calendar year, and 55 required course credits for the third calendar year, for a total of 160 quarter credits. All courses in each quarter are prerequisite to courses in the subsequent quarter.

Fieldwork courses are placed in the second and third years of the curriculum and include two Level I experiences and two 12-credit Level II Fieldwork experiences. Students' proficiency in evaluation and intervention, independent decision-making and critical thinking are emphasized during Fieldwork II-A and II-B of the curriculum. Fieldwork experiences are offered in clinical, community, hospital, school, and other facilities that have a legal agreement with the University and are located throughout the continental United States.

As one component of the Capstone process, the 14-week Doctoral Internship is positioned in the winter and spring quarters of the third year of the curriculum. Whereas the Fieldwork Level II experiences primarily focus on evaluation and intervention processes of occupational therapy, the Capstone and Doctoral Internship experiences are individualized according to each student's areas of interest in occupational therapy program development, research, leadership, education, or advocacy.

The Midwestern University College of Health Sciences Occupational Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.

Total Quarter Credits in the Professional Program: 160

First Professional Year

Fall Quarter

Course Code	Title	Credits
CORED 1599E	Interprofessional Education I	1.0
OTHED 1501	Professional Development I	2.0
OTHED 1505	Neuroscience for Occupation	3.0
OTHED 1520	Occupation	3.0
OTHED 1550	Therapeutic Communication	3.0
OTHED 1555	Analysis of Occupations	3.0

Winter Quarter

Course Code	Title	Credits
OTHED 1503	Movement for Occupation	3.0
OTHED 1504	Movement Skills Lab	1.0
OTHED 1510	Critical Analysis of Evidence	3.0
OTHED 1530	Theoretical Foundations of Occupational Therapy	3.0
OTHED 1535	Conceptual Approach to Conditions	3.0
OTHED 1540	Occupational Therapy Process: Foundations	3.0

Spring Quarter

Course Code	Title	Credits
OTHED 1512	Research Project Development	2.0
OTHED 1545	Occupational Therapy Process: Children	4.0
OTHED 1547	Occupational Therapy Process: Adults	4.0
OTHED 1549	Occupational Therapy Process: Psychosocial	4.0

Second Professional Year

Note. The student cohort will be split for select courses in the summer and fall quarters. Students will enroll in OTHED 1645 (Children) OR OTHED 1647 (Adults) each quarter.

Summer Quarter

Summer Quarter Note. The student cohort will be split for select courses in the summer and fall quarters. Students will enroll in OTHED 1645 (Children) OR OTHED 1647 (Adults) each quarter.

Course Code	Title	Credits
OTHED 1605	Research Proposal Development	1.0
OTHED 1642	Fieldwork I-A	1.5
OTHED 1645	Occupational Therapy Practice: Children	4.0
OTHED 1647	Occupational Therapy Practice: Adults	4.0
OTHED 1650	Activities of Daily Life	3.0
OTHED 1651	Group Process	3.0
OTHED 1670	Disability and Policy	2.0

Fall Quarter

Fall Quarter Note. The student cohort will be split for select courses in the summer and fall quarters. Students will enroll in OTHED 1645 (Children) OR OTHED 1647 (Adults) each quarter.

Course Code	Title	Credits
OTHED 1610	Research Project Implementation	3.0
OTHED 1643	Fieldwork I-B	1.5
OTHED 1645	Occupational Therapy Practice: Children	4.0
OTHED 1647	Occupational Therapy Practice: Adults	4.0
OTHED 1649	Occupational Therapy Practice: Psychosocial	4.0
OTHED 1661	Occupational Therapy for Upper Extremity Function	4.0

Winter Quarter

Course Code	Title	Credits
OTHED 1612	Research Project Synthesis	3.0
OTHED 1630	Needs Assessment	3.0
OTHED 1635	Fieldwork Preparation I	1.0
OTHED 1657	Advanced Adult Practice	3.0
OTHED 1660	Self-Management, Health & Wellness	3.0
OTHED 1625	Ergonomics and Universal Design (Seminar Option)	2.0
OTHED 1640	School-based Practice (Seminar Option)	2.0
OTHED 1663	Upper Extremity Rehabilitation (Seminar Option)	2.0
OTHED 1677	Sensory Processing (Seminar Option)	2.0

Spring Quarter

Course Code	Title	Credits
OTHED 1638	Fieldwork II-A	12.0

Third Professional Year

2 required course credits of Seminar Options in summer quarter.

Summer Quarter

Course Code	Title	Credits
OTHED 1702	Professional Development II	2.0
OTHED 1714	Data-based Decision Making	2.0
OTHED 1716	Professional Writing	2.0
OTHED 1735	Fieldwork Preparation II	1.0
OTHED 1737	Program Development	3.0
OTHED 1755	Administration and Management	2.0
OTHED 1790	Capstone Development I	2.0
OTHED 1723	Recovery and Occupational Justice (Seminar Option)	2.0
OTHED 1732	Intellectual and Developmental Disabilities (Seminar Option)	2.0
OTHED 1748	Gerontology (Seminar Option)	2.0
OTHED 1770	Disability Studies (Seminar Option)	2.0

Fall Quarter

Course Code	Title	Credits
OTHED 1738	Fieldwork II-B	12.0

Winter Quarter

Course Code	Title	Credits
OTHED 1730	Program Evaluation	2.0
OTHED 1757	Occupational Therapy Leadership	2.0
OTHED 1792	Capstone Development II	2.0
OTHED 1785	Doctoral Internship - A	8.0

Spring Quarter

Course Code	Title	Credits
OTHED 1786	Doctoral Internship - B	6.0
OTHED 1703	Professional Development III	2.0
OTHED 1794	Capstone Completion	2.0
OTHED 1795	Current Issues in Occupational Therapy Practice	1.0
OTHED 1797	Board Examination Preparation	2.0
	Total Credits	178

Student Academic Policies

Academic Progress

The academic standing of a student is determined by the student's cumulative grade point average. The student must pass all courses and maintain a cumulative grade point average of 3.0 or higher to have achieved satisfactory academic progress. A student must satisfactorily complete all didactic courses and academic requirements from the preceding quarter.

Cardiopulmonary Resuscitation (CPR) Certification

Students are responsible for maintaining current CPR certification in Basic Life Support (BLS) for Health Care Providers while enrolled in the Program.

Faculty

Gifty Abraham, O.T.D., OTR

University of Illinois at Chicago
College of Applied Health Sciences
Associate Professor

Glen S. Cotton, O.T.D., OTR

University of Illinois at Chicago
College of Applied Health Sciences
Associate Professor

Susanne A. Higgins, O.T.D., OTR

University of Indianapolis
College of Health Sciences
Associate Professor

Anne Kiraly-Alvarez, O.T.D., OTR

University of Illinois at Chicago
College of Applied Health Sciences
Program Director and Associate Professor

Lisa J. Knecht-Sabres, D.H.S., OTR

University of Indianapolis
College of Health Sciences
Professor

Mark Kovic, O.T.D., OTR

University of Illinois at Chicago
College of Applied Health Sciences
Associate Director and Professor

Dana M. Lingle, O.T.D., OTR

University of Indianapolis
College of Health Sciences
Academic Fieldwork Coordinator and Assistant
Professor

Lisa Mahaffey, Ph.D., OTR

University of Illinois at Chicago
College of Disability and Human Development
Professor

Monika Robinson, Dr.O.T., OTR

Governors State University
College of Health and Human Services Associate
Professor

Emily Simpson, Ph.D., OTR

University of Illinois at Chicago
College of Applied Health Sciences
Director of Student Research and Professor

Divya Sood, O.T.D., OTR

Washington University
School of Medicine
Associate Professor

Courses

CORED 1599E: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

OTHEd 1501: Professional Development I

This is the first in a series of three courses in which the student will acquire the understanding and values of becoming a professional, embracing the ethics and standards of occupational therapy, and realizing OT's scope of practice in this state and nationally. Attendance at the Illinois OT Association annual conference and the development of each student's individualized learning plan is also included as a part of this course.

Credits 2.0

OTHEd 1503: Movement for Occupation

The interrelationships between structural design and functional capabilities of the human body for use in the enactment of occupational performance will be provided in this course. Principles from anatomy, neuromotor control, and kinesiology principles will be highlighted in relation to their influence on daily task performance and purposeful activities.

Credits 3.0

OTHEd 1504: Movement Skills Lab

This lab course emphasizes the mastery of basic movement skills often used in occupational therapy practice. The assessment of joint range of motion and muscle strength, and the acquisition of certain movement skills, such as transfers and basic neurorehabilitation techniques, will be highlighted.

Credits 1.0

OTHEd 1505: Neuroscience for Occupation

This course provides students with an essential knowledge base of neuroscience for understanding the ways in which the principal structural components, corresponding functions of the nervous system, and neurological dysfunction impact human occupation. Specific emphasis will be placed on the integrated influences of the autonomic nervous system, sensory processing, motor control, emotion and behavior control, and cognitive and executive functions on occupational performance.

Credits 3.0

OTHEd 1510: Critical Analysis of Evidence

This course provides content foundational to understanding and applying current research that affects practice and the provision of occupational therapy services. The importance of research, analysis of current professional literature, understanding and interpreting basic research methodologies / designs will be highlighted. Choosing an area of research focus, developing appropriate questions, and beginning the literature review will be emphasized.

Credits 3.0

OTHEd 1512: Research Project Development

Self-directed learning is emphasized in the development of beginning research skills for small group research projects. The development of a research proposal, including the introduction, research questions, research design, and anticipated outcomes will provide the foundation for writing the proposal for submission to the institutional review board in the subsequent quarter.

Credits 2.0

OTHEd 1520: Occupation

This course provides students with a thorough foundation for understanding the complex nature of occupation and its contribution to the creation of one's identity and roles, both personal and societal. Occupational science, meaningful activity, and the essential historical tenets of occupational therapy are emphasized using current and historical research and literature.

Credits 3.0

OTHEd 1530: Theoretical Foundations of Occupational Therapy

This course provides the learner with philosophical assumptions, theories, models of practice and frames of reference that are central to occupation-focused therapy. Using the work of OT scholars, including the Slagle lecturers, students will actively engage in reading, discussion, composition, and application of OT theories to one's life and emerging practice as an occupational therapist.

Credits 3.0

OTHEd 1535: Conceptual Approach to Conditions

This course addresses an approach to conceptualizing the different types of human conditions that often precipitate the need for occupational therapy services. Developmental, medical, neurological, orthopedic, and psychiatric categories of conditions will be explored with emphasis placed on the conceptual considerations which guide the identification and evaluation process given a client's occupational needs.

Credits 3.0

OTHEd 1540: Occupational Therapy Process: Foundations

This course underscores the importance of the occupational therapy process for enacting the practice of OT. Students will acquire an in-depth understanding of the OT Intervention Process Model and the OT Practice Framework upon which to build future occupational therapy practice.

Credits 3.0

OTHEd 1545: Occupational Therapy Process: Children

This course emphasizes the application of occupational therapy models of practice for the implementation of the OT process. Goal writing, documentation, assessments, and intervention approaches will be highlighted for practice with infants, children and adolescents. Critical reasoning, prioritization of developmental considerations, family systems, and occupation-based practice will be stressed.

Credits 4.0

OTHEd 1547: Occupational Therapy Process: Adults

This course emphasizes the application of occupational therapy models of practice for assessment and intervention of adults of all ages. Goal writing, documentation, assessments, and intervention planning will be highlighted for practice with adults who have occupational dysfunction. Critical reasoning, issues of health and disability, adult roles, and occupation-based practice will be stressed.

Credits 4.0

OTHEd 1549: Occupational Therapy Process: Psychosocial

This course emphasizes the application of occupational therapy models of practice for assessment and intervention of adults of all ages who have psychosocial dysfunction. Goal writing, documentation, assessments, and intervention planning will be highlighted for practice with adults who have occupational dysfunction. Critical reasoning, management of mental illness, and occupation-based practice will be highlighted.

Credits 4.0

OTHEd 1550: Therapeutic Communication

This course provides students with an in-depth inquiry into the intentional relationship and the essential dimensions of utilizing communication therapeutically. The intentional relationship, therapeutic use of self, and the critical skills of interviewing, actively listening and responding to others will be emphasized for developing the occupational profile and serving clients across the lifespan. The learner will develop self-awareness and empathy to support the use of oneself as an artful, skillful professional. Interviewing, narrative, therapeutic relationship-building, and the creation of the occupational profile for practice are highlighted.

Credits 3.0

OTHEd 1555: Analysis of Occupations

This course emphasizes the development of the unique analytic skills occupational therapists bring to practice in task and activity analyses for designing and implementing occupations for their clients. The use of everyday activities, varied media, and the ability to up-and down-grade purposeful daily life occupations will be highlighted.

Credits 3.0

OTHEd 1605: Research Proposal Development

Having written their research project and gathered supporting documentation, students finalize their research project development in this course by completing and submitting their IRB Form A and supporting documents to the University Office of Research and Sponsored Programs for approval prior to implementing their study.

Credits 1.0

OTHEd 1610: Research Project Implementation

Self-directed learning builds upon work completed in prerequisite research courses to implement student research studies and data collection. Institutional review board approval initiates the processes of subject recruitment, data collection efforts, and the initial analysis of results.

Credits 3.0

OTHEd 1612: Research Project Synthesis

Results from the previous research coursework are subjected to descriptive or statistical analysis and integrated with current literature in occupational therapy. Completed projects are presented in poster format for peer review.

Credits 3.0

OTHEd 1625: Ergonomics and Universal Design (Seminar Option)

This seminar examines the biomechanical design and modification of equipment, machines, furniture, and tools one uses in daily life for the best person-environment fit. It emphasizes the importance of appropriate, safe, and efficient designs for environmental factors to prevent or reduce musculoskeletal strain or disorders.

Credits 2.0

OTHEd 1630: Needs Assessment

This course is the first of three courses focused on program development within occupational therapy practice. As a first essential step, identifying and assessing the need for a specific program within an existing or emerging area of practice provides the foundation upon which new and innovative programs may be constructed. Select approaches and methods will be provided for students to learn and integrate into their program development coursework which follows.

Credits 3.0

OTHEd 1635: Fieldwork Preparation I

This course introduces the student to Level II clinical education including its goals and objectives, the types of educational experiences provided and the expectations for student participation. Students will focus on their professional behaviors and their responsibilities in relation to supervisory and client-therapist relationships in the clinical setting.

Credits 1.0

OTHEd 1638: Fieldwork II-A

This rotation is comprised of supervised field experience with clients and/or client groups who exhibit a variety of medical, developmental, or psychosocial conditions. This rotation emphasizes the development of disciplined, higher-level critical reasoning skills necessary to plan and provide occupation-based and occupation-focused services.

Credits 12.0

OTHEd 1640: School-based Practice (Seminar Option)

The purpose of this seminar is to prepare occupational therapy students to provide effective school-based services. This course will emphasize student-centered services, problem solving models, team collaboration, and evidence-based intervention strategies. In addition, students will develop an understanding for school legislation at the federal, state, and local levels and understand how policy influences OT service delivery in schools.

Credits 2.0

OTHEd 1642: Fieldwork I-A

This is the first of two Fieldwork Level I courses in which students engage with individuals across the life span in school, clinic, home, or community settings. Students participate in experiential opportunities focused on the psychological, social, and cultural factors that influence occupational engagement. The FW Level I experiences merge with didactic content in the concurrent OT Practice courses during the quarter.

Credits 1.5

OTHEd 1643: Fieldwork I-B

This is the second of two Fieldwork Level I courses in which students engage with individuals across the life span in school, clinic, home, or community settings. Students participate in experiential opportunities focused on the psychological, social, and cultural factors that influence occupational engagement. The FW Level I experiences merge with didactic content in the concurrent OT Practice courses during the quarter.

Credits 1.5

OTHEd 1645: Occupational Therapy Practice: Children

This course focuses on the application and synthesis of OT practice with infants, children, and adolescents across varied practice settings. Case-based and authentic methods are used to enhance students' evaluation and intervention skills for practice. This course is offered in both the summer and fall quarters and is held concurrently with Fieldwork Level I experiences.

Credits 4.0

OTHEd 1647: Occupational Therapy Practice: Adults

This course focuses on the application and synthesis of OT practice with adults and seniors across varied practice settings. Case-based and authentic methods are used to enhance students' evaluation and intervention skills for practice. This course is offered in both the summer and fall quarters and is held concurrently with Fieldwork Level I experiences.

Credits 4.0

OTHEd 1649: Occupational Therapy Practice: Psychosocial

This course focuses on the application and synthesis of OT practice with persons who have psychosocial dysfunction or mental illness across varied practice settings. Case-based and authentic methods are used to enhance student evaluation and intervention skills for practice.

Credits 4.0

OTHEd 1650: Activities of Daily Life

This course emphasizes the importance and value of personal and complex or instrumental activities of daily living across the lifespan. Selected assessment procedures, intervention techniques, and field experiences are offered as learning opportunities. The importance of occupations within one's daily habits and routines, and the use of adaptive equipment, the application of seating and positioning, and community access and mobility are included.

Credits 3.0

OTHEd 1651: Group Process

This course focuses on the ways in which groups are used in occupational therapy practice across different settings and with a variety of client populations. This lab course emphasizes the theoretical approach, design, and implementation of groups while highlighting issues related to the phases of group development, establishing cohesion, managing conflict, and the application of interpersonal and therapeutic skills in group contexts.

Credits 3.0

OTHEd 1657: Advanced Adult Practice

This course provides students with a deeper understanding of evidence-based occupational therapy intervention for people with chronic, permanent, or progressive conditions. Functional cognition and neuromotor approaches will be highlighted. Students will further develop their practice and clinical reasoning skills to support effective application of restorative, compensatory, and adaptive approaches to improving client occupational performance and participation.

Credits 3.0

OTHEd 1660: Self-Management, Health & Wellness

This course explores and applies the processes and practices of education in professional and academic settings for occupational therapy. Background, evidence bases, and approaches to self-management, health, and wellness from an occupational therapy perspective will be utilized to address an individual's needs across the lifespan. The theoretical foundations of teaching and learning and the educational roles of occupational therapists will be highlighted. Students will apply course concepts to the development of their individual model of teaching and learning and the ways in which occupational therapists collaborate, consult, and educate others in their practice settings.

Credits 3.0

OTHEd 1661: Occupational Therapy for Upper Extremity Function

This course highlights occupation-focused and occupation-based approaches to occupational therapy intervention for enhancing upper extremity function impacted by certain orthopedic and neurologic conditions. The inclusion of preparatory interventions, such as the design and application of orthotic devices and physical agent modalities, are included in this course.

Credits 4.0

OTHEd 1663: Upper Extremity Rehabilitation (Seminar Option)

This seminar focuses on advanced evaluation and intervention strategies for the remediation of physical limitations that are primarily musculoskeletal in nature. Emphasis is placed on the process of orthotic fabrication in the context of occupation-based intervention. Various mechanisms and methods of mobilization of tissues will be introduced and practiced on specific client cases.

Credits 2.0

OTHEd 1670: Disability and Policy

This course will analyze contemporary concepts, issues, and legislation surrounding disability. The course will review key definitions of disability within the context of significant models and various methodological approaches. Emphasis will be placed on the public policy issues that shape them.

Credits 2.0

OTHEd 1677: Sensory Processing (Seminar Option)

This seminar focuses on the application of the theory of sensory integration as well as the current evidence and research on the neurobehavioral foundations of sensory processing. The evaluation and intervention processes for individuals with sensory processing dysfunction will be highlighted.

Credits 2.0

OTHEd 1702: Professional Development II

This is the second of three courses in which the student will deepen their understanding of being an occupational therapy professional. This course is positioned between the Level II Fieldwork rotations to afford students an opportunity to explore issues of leadership, ethical dilemmas, and professional responsibility. Attendance at the national AOTA annual conference may also be included as a part of this course.

Credits 2.0

OTHEd 1703: Professional Development III

This is the third of three courses in which the student explores issues related to professionalism and becoming part of a "doctoring profession". This course is positioned after the completion of the doctoral internship in the last quarter of the program. Students will construct goals and plans for continued professional development and prepare for obtaining positions as occupational therapy professionals.

Credits 2.0

OTHEd 1714: Data-based Decision Making

This course will prepare students to use and apply knowledge from their research projects and other current occupational therapy sources for translation to clinical practice and upcoming Capstone projects. Students will read current and relevant literature and apply knowledge to contextual scenarios.

Credits 2.0

OTHEd 1716: Professional Writing

This course prepares the student to write and publish professional and scientific papers. The course covers the preparation of manuscripts, style and format, citation methods, peer review processes, and the ethics of professional writing.

Credits 2.0

OTHEd 1723: Recovery and Occupational Justice (Seminar Option)

This seminar will provide a comprehensive exploration of recovery and disability as issues of occupational and health justice. Coursework will provide opportunities to discuss and critique the psychosocial effects and occupational impact of systematized castes, normativity, oppression, "isms" and other discriminatory attitudes or beliefs in current society.

Credits 2.0

OTHEd 1730: Program Evaluation

This is the third course in a series of three courses on program development. As an essential and often overlooked step, evaluating the strengths and implications of a newly developed program from the perspectives of the consumers, organization, and other parties validates the efficacy of the program for intended recipients of the program. Select approaches will be provided for students to learn and integrate program evaluation methods and apply them to group projects.

Credits 2.0

OTHEd 1732: Intellectual and Developmental Disabilities (Seminar Option)

This seminar is an application of the occupational therapy process with adults with intellectual and developmental disabilities. Resources of evidence-based and research literature, as well as the role of occupational therapy with underserved populations, will be highlighted.

Credits 2.0

OTHEd 1735: Fieldwork Preparation II

This course is the second of two courses designed to prepare the student for Level II clinical practice and further prepares the student the attitudes required for the therapeutic process. Focus will be placed on professional behaviors and attitudes that impact the clinical experience and their future professional careers.

Credits 1.0

OTHEd 1737: Program Development

This is the second of three courses related to program development within occupational therapy practice. Students work in small groups to develop a realistic model for service provision within an agency or organization, private clinic, or community setting. Emerging and non-traditional areas of practice are emphasized.

Credits 3.0

OTHEd 1738: Fieldwork II-B

This rotation is comprised of supervised field experience with clients and/or client groups who exhibit a variety of medical, developmental, or psychosocial conditions. This rotation emphasizes the development of disciplined, higher-level critical reasoning skills necessary to plan and provide occupation-based and occupation-focused services. Students are supervised by registered occupational therapists with a minimum of one year of experience.

Credits 12.0

OTHEd 1748: Gerontology (Seminar Option)

This seminar will utilize current evidence and research to explore occupational therapy practice with older adults. The course will also include an application of the OT process with older adults, especially those at risk for or who have dementia. The factors which impede successful engagement in occupation for older adults, as well as opportunities to grade and adapt the environment, activities, and occupations, will be emphasized.

Credits 2.0

OTHEd 1755: Administration and Management

This course provides students with the foundational knowledge and skills to assume administrative or management roles and responsibilities. The topics of strategic planning, business plans, legal and reimbursement issues, departmental budgeting, inventory management, supervision and personnel management are covered. Links to leadership are addressed.

Credits 2.0

OTHEd 1757: Occupational Therapy Leadership

This course examines the evidence bases for leadership roles and responsibilities in occupational therapy. The values, approaches, and importance of guiding change based on strong vision and mission are highlighted. Advocacy is emphasized as part of occupational therapy leadership.

Credits 2.0

OTHEd 1770: Disability Studies (Seminar Option)

This seminar will take a critical look at the historical, political, medical, sociocultural and economic forces that shape occupational therapy's attitudes, policies and research around disability. Students will review seminal writings on disability rights, theory, power and ideology, and explore more contemporary and cultural writings from the disability community directly.

Credits 2.0

OTHEd 1785: Doctoral Internship - A

This internship is divided between two quarters to ensure that each student completes 14 full weeks of off-campus doctoral rotation in an organization or facility in which they are creating and implementing their Capstone projects. While largely independent work is required, each student receives individual supervision and guidance from both a faculty member as well as onsite mentor.

Credits 8.0

OTHEd 1786: Doctoral Internship - B

This course is the second of two courses for the Doctoral Internship, or 14 weeks of off-campus doctoral rotation. Independent but mentored work on the part of the student is an essential component of this course.

Credits 6.0

OTHEd 1790: Capstone Development I

This course will focus on the conceptualization and initial development of the student's scholarship or Capstone project proposal. Each student will construct a proposed plan for their work and determine the site(s) for receipt of their project. A timetable for each step of the project will also be articulated. Students will present an oral defense of their proposed Capstone projects for implementation during the Doctoral Internship.

Credits 2.0

OTHEd 1792: Capstone Development II

The purpose of this course is to provide the student with the time and individualized guidance needed to refine their Capstone project, including the goals, methods, supports, and to anticipate and prevent potential constraints prior to initiation of the Doctoral Internship.

Credits 2.0

OTHEd 1794: Capstone Completion

This course emphasizes the completion of each student's Capstone project. Each student will be required to defend their project, prepare their project for final dissemination, including publication and presentation, and ensure that, as appropriate, the project is implemented at the collaborating site(s) after the Doctoral Internship rotation.

Credits 2.0

OTHEd 1795: Current Issues in Occupational Therapy Practice

This course focuses on contemporary issues in various areas of practice at the state, regional, national, and international levels. Opportunities for professional responsibility and action will be highlighted.

Credits 1.0

OTHEd 1797: Board Examination Preparation

This course is placed after successful completion of all didactic, Fieldwork, and Internship courses. This course provides the student with resources and a validated approach to studying and developing the skills and confidence necessary to prepare for taking the National Board for Certification in Occupational Therapy examination post-graduation.

Credits 2.0

Clinical Psychology Program

Mission

The Midwestern University Doctor of Psychology (Psy.D.) in Clinical Psychology Program educates and trains students to be Health Service Psychologists in the general practice of evidence-based clinical psychology serving diverse populations.

Aims

The Program's overall goal is to educate and train students in the practitioner-scholar training model for the practice of clinical psychology. In service of this goal the Program has four broad educational aims:

1. Students acquire theoretical and scientific knowledge in the entry-level practice of clinical psychology working with diverse individuals and groups.
2. Students develop and utilize a strong set of clinical skills, behaviors, and attitudes that reflect the highest ethical and professional standards in the entry-level practice of clinical psychology working with diverse individuals and groups.
3. Students engage in research and evaluation, contribute to the body of knowledge, and evaluate clinical outcomes using empirically based information and methods.
4. Students develop an appreciation for the value of interdisciplinary collaboration and practice and are able to work effectively with professionals from other healthcare disciplines.

Accreditation

Midwestern University is accredited by The Higher Learning Commission, 230 South LaSalle St., Suite 7-500, Chicago, IL 60604-1413; 800/621-7440. The Psy.D. degree program is accredited by the Commission of Accreditation of the American Psychological Association. Questions related to the program's accredited status should be directed to the Commission of Accreditation: Office of Program Consultation and Accreditation, American Psychological Association, 750 First Street NE; Washington, DC 20002-4242. Phone: 202/336-5979/ Email: apaaccred@apa.org/ Website: <http://www.apa.org/ed/accreditation>

Degree Description

The Doctor of Psychology degree is designed to be a professional degree similar to the doctoral degrees provided in medicine, law, pharmacy, physical therapy, and dentistry. The Psy.D. is considered the degree of choice for persons interested in becoming a practitioner-scholar when pursuing a career in clinical psychology. The program emphasis is on the development of essential diagnostic, therapeutic, and consultative skills for the practice of clinical psychology.

The program of study follows the recommendations of the American Psychological Association (APA) for broad and general education and training for Health Service Psychologists. Students are educated and trained in the current body of knowledge in the following discipline-specific domains: the history and systems of psychology; affective aspects of behavior; biological aspects of behavior; cognitive aspects of behavior; developmental aspects of behavior; social aspects of behavior; and an advanced integration of these areas. Knowledge of research and quantitative methods is also necessary, including research methods, quantitative methods of data analysis, and psychometric theory.

The program centers on the development of appropriate competencies reflected in the American Psychological Association (APA) Standards of Accreditation (SoA; APA, 2015). There are nine required profession-wide competencies. The program has key points in the curriculum targeted to assess progress in attaining these competencies. These include competencies in Research; Ethics and Legal Standards; Individual and Cultural Diversity; Professional Values, Attitudes and Behavior; Communication and Interpersonal Skills; Assessment; Intervention; Supervision; and Consultation and Interprofessional/Interdisciplinary Skills.

Research Competency: The research competency rests on the student's understanding of research, research methods, and techniques of data collection and analysis. Students will also understand the reciprocal relationship between science and clinical practice. Students are expected to be able to use this knowledge to critically evaluate and solve novel problems, to independently formulate research or other scholarly activity of sufficient quality and rigor to potentially contribute to the scientific or professional knowledge base, and to disseminate such research or scholarly activity via professional publications and presentations at the local, regional or national level.

Ethics and Legal Standards Competency: This competency includes having a working knowledge of ethical, legal and professional standards and guidelines at the organizational, local, state, and federal level. Students are expected to act in accordance with those standards and guidelines and conduct themselves in an ethical manner in all professional activities. This competency also includes the ability to recognize ethical dilemmas when they arise and to apply ethical decision making in order to resolve those dilemmas.

Individual and Cultural Diversity Competency: This competency stresses that students will develop the ability to conduct all of their professional activities with sensitivity to human diversity and will demonstrate an ability to work effectively with diverse individuals and groups. Students must demonstrate knowledge, awareness, sensitivity and skills when working with diverse individuals and communities who embody a variety of cultural and personal backgrounds and characteristics. As such, students must demonstrate an understanding of their own personal/cultural history, attitudes and biases that may affect their understanding and interaction with others, have knowledge of the current theoretical and empirical knowledge base related to addressing diversity in professional activities, and show the ability to integrate this awareness and knowledge of individual and cultural differences in the conduct of their professional roles.

Professional Values, Attitudes and Behavior Competency: This competency is evidenced by the ability to demonstrate an adherence to the professional values, attitudes and behaviors that define the profession of psychology. This includes honesty, integrity and personal responsibility, as well as concern for the welfare of others. It includes one's professional identity as well as deportment in interactions with clients and with others, including peers, supervisors, faculty, and other professionals. Students are expected to demonstrate openness and responsiveness to feedback and supervision. Professionalism also includes the capacity for self-reflection, self-care and an appreciation of lifelong learning.

Communication and Interpersonal Skills Competency: Communication and Interpersonal Skills are foundational competencies for health service psychology. This competency requires a demonstration of the ability to relate effectively and meaningfully with a wide range of individuals, groups and communities. This includes the ability to form and maintain productive and respectful relationships with clients, peers, supervisors, and other

professionals. This competency also entails the ability to produce and comprehend nonverbal, oral and written communication and to have a thorough grasp of professional language and concepts. Students are expected to demonstrate effective interpersonal skills and to be able to manage difficult communication or conflict.

Assessment Competency: The assessment competency involves the evidence-based assessment and diagnosis of problems, capabilities and issues associated with individuals, groups, or organizations. It includes knowledge of principles of measurement and psychometrics. This competency also requires the knowledge and skills necessary for effective selection, administration, scoring and interpretation of assessment measures appropriate to the specific purpose or goals of the assessment and the individual being assessed. The assessment competency also requires an ability to synthesize multiple sources of data to develop appropriate diagnoses, conceptualizations and treatment plans and to communicate that information in an effective oral and written manner to a range of audiences.

Intervention Competency: The intervention competency requires students to demonstrate the knowledge, skills and attitudes necessary to conduct evidence-based interventions with individuals, families, groups and other systems. This competency encompasses the ability to establish and maintain effective therapeutic relationships, develop case formulations and implement treatment plans using relevant theory and research for effective clinical decision making. It includes the ability to monitor and evaluate the effectiveness of chosen intervention approaches and to appropriately revise treatment strategies as necessary and appropriate.

Supervision Competency: The supervision competency requires students to be able to demonstrate a knowledge of supervision models and practices as well as how to apply this knowledge. This includes having knowledge of how trainees and clinicians develop into skilled professionals, knowledge of the procedures and processes of effective supervision, and knowledge of how to effectively evaluate those skills in others.

Consultation and Interprofessional/Interdisciplinary Competency: The consultation and interprofessional/interdisciplinary competency requires students to demonstrate knowledge of consultation models and practices, and to demonstrate respect for the roles and perspectives of other professions. It involves the ability to function in interdisciplinary contexts, and interact collaboratively with professionals in other disciplines in order to seek or share knowledge, address problems, promote effective professional activities and enhance outcomes.

Program Philosophy

The Doctor of Psychology in Clinical Psychology Program follows the practitioner-scholar training model that was accepted by the American Psychological Association at the Vail Conference (1973). This model recognizes the ongoing need in society for expertly trained practitioners in the field of clinical psychology. The practitioner-scholar philosophy dictates that competent practitioners are required to have an extensive understanding of the theoretical principles and empirical bases of the clinical practice of psychology, and the ability to utilize the knowledge in specific clinical situations. The program's goal is to educate and train individuals to enter careers as Health Service Psychologists emphasizing the delivery of direct psychological services and consultation. Relevant theory, research, and field experiences are integrated toward the development of competent and ethical Health Service Psychologists who are respectful of individual and cultural differences in the provision of evidence-based psychological services.

Program Length

The Psy.D. Program is designed to be completed in five years. Full-time students will complete four years of coursework, clerkship, and practicum experiences. This is followed by a one-year full-time internship and the satisfactory completion of the dissertation. A total of at least 233.5 quarter hours is required for the 5-year Psy.D. degree. However, students may elect to complete the program with up to 274.5 credits. A four-year option is available to students entering the program with a prior master's degree or other qualified students. The four-year

option requires a minimum of 213.5 credits. Those electing the Child and Adolescent Emphasis may require an additional 15 credits. Some evening classes or weekend courses may be scheduled. The maximum allotted time for completion of the program is seven years. Students who exceed the maximum time to completion will be referred to the Student Academic Review Committee and may be dismissed by the program.

Master of Arts in Clinical Psychology Degree

Students are only admitted into the Psy.D. Program. There is no terminal Master of Arts degree program. Students electing to receive the M.A. degree must have successfully completed all of the required 1500 and 1600 level courses, clerkship, and practicum experiences for a minimum of 106.5 credit hours.

Clerkship

The Psy.D. Program offers a number of supervised pre-practicum clinical and clinical research experiences in the first year of study. All students are required to complete two quarters of clerkship. Under supervision of program faculty, students work at training sites in a variety of clinical and/or clinical research roles appropriate for their level of training. Students can choose clerkship experiences from a variety of opportunities. Final selection for participation in a particular clerkship rests with the Program Director in consultation with the clerkship supervisors. For more information, refer to the current Clinical Psychology Program Clinical Training Manual.

Clinical Practicum

Students enter practicum training if they are making satisfactory progress in the program and receive approval of the Program Director, Director of Clinical Training, and the Academic Review Committee. The Director of Clinical Training assists students in the application process for practicum placements to facilitate an appropriate match between training site characteristics and students' interests. Practicum is a field experience at an off-campus clinical training site for a minimum of 9 months and up to 12 months that are consecutive. Practicum training is completed at numerous hospitals, agencies, and organizations throughout the Chicagoland area. The specific clinical focus of the experience varies according to the student's needs, interests, services provided at the training site, and availability of practicum

sites. Students typically work approximately 16 to 24 hours per week in a clinical setting. The practicum experiences in diagnostic, therapy, and advanced total approximately 1,800 hours over three years. Typically, the student completes a diagnostic practicum in the second year of study, a therapy practicum in the third year, and an advanced practicum in the fourth year. Practicum placements may require work in the summer months, over holiday periods, and during breaks in the academic calendar. All students in the five year program must successfully complete practicum experiences in the second, third and fourth years of study. Students electing the four year option must successfully complete practicum experiences in the second and third years of study. Students must also complete a concurrent practicum seminar on campus for any year in which they are enrolled in a practicum. In order to receive credit for practicum, students must pass both the Practicum and Practicum Seminar Blocks in which they are enrolled. For more information, refer to the current Clinical Psychology Practicum Training Manual and the Practicum Search Manual.

Internship

The pre-doctoral internship is a 2,000-hour requirement at an approved clinical training site full-time over a 12-month period or half-time over a 24-month period. Internship is typically a year-long sequentially organized full-time training experience. The student must successfully complete all four quarters of the internship at one site to receive credit for this full-time training experience. Students completing half-time internships will need to successfully complete all eight quarters of the internship to receive credit for this training experience. The internship is designed to provide intensive advanced clinical training that builds upon previous coursework and practicum experiences. The internship is a critical component of the Psy.D. Program and cannot be waived. Students typically apply for the internship during the fourth year of the program. Students must satisfactorily

complete all required coursework, clerkship, and practicum experiences prior to going on internship. Students must also satisfactorily propose the Dissertation prior to applying for internship. Students choosing the four-year option with a previous Master's degree from another program may petition to apply for internship prior to their fourth year of the program. Final decisions about eligibility to apply for internship rest with the Program Director, Director of Clinical Training, and the Clinical Psychology Academic Review Committee. Students applying for an internship enter a national match process with training sites across the country. Students may expect to travel some distance during the internship interview process. The internship is a stipend position. For more information, refer to the current Clinical Psychology Internship Search Manual.

Dissertation

The successful completion of a Dissertation is required for graduation. This is intended as a scholarly work that permits students an opportunity to enhance their knowledge about a particular clinical area. A committee of faculty members, including a designated Dissertation Chair, will assist with this process. By the start of the second year, students will develop a dissertation topic and a committee will be assigned. Students will develop the proposal for their dissertation throughout the second and third years of the program. Students must present the written and oral proposal to their committee for approval by the end of the third year and prior to applying for internship, before the dissertation is implemented. Following the successful defense of the dissertation proposal, students will be enrolled in a series of courses over the remainder of the program to facilitate the completion of the project. The student then completes the project and submits a written document detailing the Dissertation. Each student must present an oral defense of the Dissertation upon its completion. Following a successful defense, the student must provide the program with a copy of the final Dissertation for binding. The Dissertation takes a minimum of 12 months to complete. With the Program Director's approval, students needing additional time beyond the internship year to complete the Dissertation must register for PSYCD 1990-1999 Dissertation Post-Internship I - X, as needed, a 0.5 credit hour course. For more information regarding Dissertation policies and requirements refer to the current Clinical Psychology Program Dissertation Manual.

Admissions

The Clinical Psychology Program considers applicants who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. The Program requires an interview with applicants before decisions are made concerning admission into the Program.

Admissions Requirements

To be considered for admission within our competitive selection process, applicants must submit the following documented evidence:

1. Completion of a bachelor's degree from a regionally accredited college or university.
2. An overall undergraduate and graduate grade point average (GPA) of 3.000 on a 4.000 scale is required.
3. Completion of 18 semester hours or equivalent of prerequisite coursework in psychology with a grade of C or better including: Introduction to General Psychology, Human Growth & Development or Personality Theory, Abnormal Psychology, Statistics or Tests and Measurements. Performance in undergraduate prerequisite courses must be at the level of B- or above as expected in the graduate program.
4. Demonstration of community service or extracurricular activities.
5. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.
6. Oral and written communication skills necessary to interact with patients and colleagues.
7. Commitment to abide by Midwestern University's Drug-Free Workplace and Substance Abuse Policy.
8. Passage of the Midwestern University criminal background check.

Application Process and Deadlines

1. PSYCAS Application Applicants are required to submit their applications to PSYCAS at <https://psycas.liaisoncas.com> by May 1, 2023. Please refer to the PSYCAS application instructions for specific details about completing the application, required documents, and processing time. Applicants are strongly encouraged to complete their PSYCAS application early in the cycle. Midwestern University operates on a rolling admissions basis where applications are reviewed throughout the admissions cycle.
2. Letters of Recommendation Applicants are required to submit a minimum of two letters of recommendation from professionals to PSYCAS (<https://psycas.liaisoncas.com>). The Office of Admissions will only accept letters of recommendation received directly from PSYCAS. Letters of recommendation should be written by professionals who know the applicant well (teachers, advisors, professional colleagues or supervisors). The applicant should refer to the PSYCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.
3. Completed Applications The Office of Admissions will send letters verifying receipt of PSYCAS applications with all required materials to all applicants who meet the minimum cumulative GPA of 3.0. The letters will also include instructions on checking the status of the required application materials online. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit completed applications with all required application materials will be considered for potential entrance into the Program.

Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address. All requests for application withdrawal must be made in writing via e-mail, fax, or letter to the Office of Admissions at:

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL
(630) 515-6171
(800) 458-6253
admissil@midwestern.edu

Interview and Selection Process

Completed applications are reviewed to determine an applicant's eligibility for interviews. Interviews are conducted virtually or on the Midwestern University campus during several days throughout the admissions cycle. The personal interview is the final step in the application process. The Admissions Committee, which includes the Program Director, makes decisions for action with oversight from the Dean of the College of Health Sciences. The Dean, via the Office of Admissions, notifies applicant in writing of the admission action/decision.

The Dean of the College of Health Sciences may recommend for an interview, applicants who meet the Program's minimum requirements for which they are applying (e.g. children of alumni, faculty, or staff). These applicants are not guaranteed admission into a Program and will have their application reviewed similarly to other applicants being considered for acceptance. All admissions decisions are made by the program Admissions Committee.

Transfer of Credit

To receive credit for coursework completed at other institutions prior to matriculation at Midwestern University, students must submit a Petition for Advanced Standing/Transfer of Credit Form and a course syllabus for each

course the student is requesting to transfer. In addition, one official transcript must be submitted. All requests for Advanced Standing must be submitted prior to registration for the first quarter of the program. Requests will not be accepted after the student's first quarter in the program. The transfer of credit has the following conditions:

1. A maximum of 40 quarter hours, 32 trimester hours, or 27 semester hours, of credit for coursework completed prior to matriculation may be considered;
2. Transferred course credit is limited to graduate level courses in psychology or mental health from recognized, regionally accredited degree granting institutions;
3. Credit may be awarded for required courses completed from other doctoral programs;
4. Credit may only be awarded for courses in which a grade of B- or higher was attained;
5. Credit may not be transferred for courses in Diversity. All students are required to complete PSYCD 1610: Diversity in Clinical Psychology at Northwestern University;
6. Credit is not transferable for clerkship, practica or internship; (for more information refer to the current Clinical Training Manual);
 1. Other courses that include a competency gateway may be considered for transfer of credit. This will be determined on a case by case basis. Furthermore, in order for any credit to be granted for a course that includes a competency gateway, a competency examination is required to determine satisfactory performance before transfer of credit will be granted.
7. Advanced Standing will only be granted for required courses. Advanced Standing will not be granted for MWU Clinical Psychology electives.
8. Credit can only be awarded for courses completed within a seven-year period before matriculation.

All Advanced Standing requests will be reviewed by the Chair of the Program's Education Committee, the Course Director of the Northwestern University course for which the student is requesting Advanced Standing, and/or the Program Director. If a course is accepted for credit, the equivalent Northwestern University course and Advanced Placement (AP) notation will be recorded on the transcript along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on the MWU transcript or used in the MWU GPA calculation.

Students requesting, and receiving, Advanced Standing understand that this might have financial and scheduling implications throughout their time at MWU. While the Program will work with the student, it is the STUDENT'S responsibility to ensure they have enough credits to qualify for Financial Aid for any given quarter.

Reapplication Process

Students who receive either denial or end-of-cycle letters may reapply for the following year's admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit a new application and proceed through the standard application process.

Graduation Requirements

The Master of Arts degree in Clinical Psychology (M.A.) is awarded if the following conditions are fulfilled by students in the Psy.D. Program:

1. Satisfactory completion of a minimum of 106.5 credit hours including all required courses (81 credits), Interprofessional Education course (1 credit), clerkships (2 credits), and practica and practicum seminars (21.5 credits).
2. Attainment of a cumulative grade point average of 3.000 or higher; and a minimum of B- or P in all required courses, seminars and practica.
3. Favorable recommendation for conferral of master's degree from the Clinical Psychology Program Academic Review Committee and the CHS Student Promotion and Graduate Committee.
4. Settlement of all financial accounts with the University.

To receive the Doctor of Psychology in Clinical Psychology (Psy.D.), the student must complete all requirements within seven calendar years of matriculation. To be eligible for graduation the student must meet the following requirements:

1. Satisfactory completion of a minimum of 233.5 credits consisting of all the required courses; (213.5 credits for the four-year option.)
2. Attainment of a cumulative grade point average of 3.0 or higher; and minimum of B- or P in all required courses, seminars and practica;
3. Satisfactory completion of the written Qualifying Examination and program-based competencies;
4. Satisfactory completion of an approved internship;
5. Satisfactory completion of a Dissertation, including a successful oral defense and the submission of a copy for binding;
6. Completion of all graduation clearance requirements as instructed by the Office of the Registrar;
7. Favorable recommendation for doctoral degree conferral from the Clinical Psychology Program Academic Review Committee and the CHS Student Promotion and Graduation Committee;
8. Settlement of all financial accounts with the University.

Requirements for Full Time Study in Residence

A residency requirement must be satisfied as a condition of graduation. According to the American Psychological Association Standards of Accreditation (APA, 2015) students must meet the following requirements:

1. A minimum of 3 full-time academic years of graduate study (or the equivalent thereof) plus an internship prior to receiving the doctoral degree;
2. At least 2 of the 3 academic training years (or the equivalent thereof) within the program from which the doctoral degree is granted;
3. At least 1 year of which must be in full-time residence (or the equivalent thereof) at that same program. At this University this is defined as the successful completion of a minimum of twelve quarter hours per term for three consecutive quarters.

All enrolled students, including those enrolled with transfer credits, must meet or exceed the minimum residency requirements. All students must additionally complete all training experiences (clerkship, practica and a full-time predoctoral internship) during their residency in the Program.

Licensure Requirements

All clinical psychologists providing direct services to the public must be licensed or certified by the state or province in which they practice. Doctoral level licensure typically requires completion of a prescribed educational requirement, pre- and postdoctoral supervised experience and successful completion of the national Examination for Professional Practice of Psychology (EPPP) as well as specific state or provincial requirements. Completion of Midwestern's accredited program meets or exceeds the educational requirement in all 50 states (AL, AK, AZ, AR, CA, CO, CT, DE, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NC, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY) and territories of the District of Columbia (DC), Puerto Rico (PR), and the U.S. Virgin Islands (VI).

However, additional licensure requirements will vary from jurisdiction to jurisdiction. Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment.

For more information see the website of The Association of State and Provincial Psychology Boards (ASPPB) at www.asppb.net.

Special Note: Licensure in California requires additional hours of coursework in the following areas: Human Sexuality (10 hours); Child Abuse and Reporting (7 hours); Spousal or partner abuse assessment, detection, and intervention (2 hours).

Curriculum

Degree Type

Doctor of Psychology (Psy.D.)

The following curriculum applies to all students who matriculated in Fall 2021 or thereafter. For students who matriculated prior to Fall 2020, refer to the appropriate Midwestern University Catalog for the relevant curriculum listing.

Total Quarter Credits in the 5-year Professional Program: 233.5 - 274.5. Students electing the Child and Adolescent Emphasis may require an additional 15 credits. Students entering the program with advanced standing or otherwise electing the four-year option may complete the program in 4 years with a minimum of 213.5 credits. In this case the 4th year is eliminated and PSYCD 1811 - 1814 and PSYCD 1822 - 1825 are moved into the 3rd year.

The total number of quarter credits is dependent upon which, if any, elective courses are taken by the student.

With the Program Director's approval, students needing additional time during or beyond the internship year to complete the Dissertation must register for PSYCD 1921-1924 Dissertation Continuation I-IV or PSYCD 1990-1999 Dissertation Post-Internship I - X as needed, a 0.5 credit hour course, to complete the dissertation requirement.

Note: The Clinical Psychology Program reserves the right to alter its curriculum however and whenever it deems appropriate.

First Professional Year

Fall Quarter

Course Code	Title	Credits
CORED 1599H	Interprofessional Education I	1.0
PSYCD 1501	Professional Issues and Ethics	3.0
PSYCD 1504	Research Methods and Design	3.0
PSYCD 1505	Professional Development Seminar I	1.0
PSYCD 1515	Tests and Measurements	3.0
PSYCD 1520	Clinical Appraisal and Interviewing	3.0
PSYCD 1507	History and Systems	3.0

Winter Quarter

Course Code	Title	Credits
PSYCD 1502	LifeSpan Development I	3.0
PSYCD 1506	Professional Development Seminar II	1.0
PSYCD 1510	Statistics I	3.0
PSYCD 1524	Intelligence Testing I	3.0
PSYCD 1582	Clerkship I	1.0
PSYCD 1525	Intelligence Testing II	3.0

Spring Quarter

Course Code	Title	Credits
PSYCD 1503	Life Span Development II	3.0
PSYCD 1508	Research Methods II	3.0
PSYCD 1526	Personality Assessment I: Objective Techniques	3.0
PSYCD 1527	Personality Assessment II: Projective Techniques	2.0
PSYCD 1550	Biological Bases of Behavior	3.0
PSYCD 1583	Clerkship II	1.0

Second Professional Year

Clinical Block: (Block hours billed across terms.)*

Course Code	Title	Credits
PSYCD 1673	Diagnostic Practicum	15.0-20
PSYCD 1674	Diagnostic Practicum Seminar	6.5

Summer Quarter

Course Code	Title	Credits
PSYCD 1611	Statistics II	3.0
PSYCD 1660	Cognitive-Affective Bases of Behavior	3.0
PSYCD 1669	Psychopathology I: Anxiety and Personality Disorders	3.0

Fall Quarter

Course Code	Title	Credits
PSYCD 1620	Advanced Assessment	3.0
PSYCD 1640	Introduction to Neuropsychology	3.0
PSYCD 1654	Social and Cultural Bases of Behavior	3.0
PSYCD 1670	Psychopathology II: Depressive, Bipolar and Schizophrenia Spectrum Disorders	3.0

Winter Quarter

Course Code	Title	Credits
PSYCD 1610	Diversity in Clinical Psychology	3.0
PSYCD 1636	Behavior Therapy	3.0
PSYCD 1671	Child Psychopathology	3.0

Spring Quarter

Course Code	Title	Credits
PSYCD 1631	Cognitive Behavioral Theories and Approaches to Psychotherapy	3.0
PSYCD 1632	Psychodynamic Approaches to Psychotherapy	3.0
PSYCD 1680	Research Seminar: Integration of Science and Practice	2.0

Third Professional Year

Clinical Block: (Block hours billed across terms.)*

Course Code	Title	Credits
PSYCD 1773	Therapy Practicum	15.0-20
PSYCD 1774	Therapy Practicum Seminar	6.5

Summer Quarter

Course Code	Title	Credits
PSYCD 1705	Family and Systems Theory and Application	3.0
PSYCD 1732	Supervision	2.0
PSYCD 1733	Consultation Models and Practice	2.0
	Electives (0-3 credits)	0-3

Fall Quarter

Course Code	Title	Credits
PSYCD 1776	Health Psychology	3.0
PSYCD 1742	Group Theory and Application	2.0
	Electives (0-3 credits)	0-3

Winter Quarter

Course Code	Title	Credits
PSYCD 1708	Advanced Ethics	3.0
PSYCD 1766	Advanced Integration of Scientific Knowledge	3.0
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PSYCD 1750	Psychopharmacology	3.0
PSYCD 1777	Integrated Healthcare	3.0
	Electives (0-3 credits)	0-3

Fourth Professional Year

Clinical Block: (Block hours billed across terms.)*

Course Code	Title	Credits
PSYCD 1873	Advanced Therapy Practicum	15.0-20
PSYCD 1874	Advanced Therapy Practicum Seminar	5.0

Summer Quarter

Course Code	Title	Credits
PSYCD 1811	Dissertation I	2.0
PSYCD 1822	Professional Development and Lifelong Learning I	4.0
	Electives (0-3 credits)	0-3

Fall Quarter

Course Code	Title	Credits
PSYCD 1812	Dissertation II	2.0
PSYCD 1823	Professional Development and Lifelong Learning II	4.0
	Electives (0-3 credits)	0-3

Winter Quarter

Course Code	Title	Credits
PSYCD 1813	Dissertation III	2.0
PSYCD 1824	Professional Development and Lifelong Learning III	4.0
	Electives (0-3 credits)	0-3

Spring Quarter

Course Code	Title	Credits
PSYCD 1814	Dissertation IV	2.0
PSYCD 1825	Professional Development and Lifelong Learning IV	4.0
	Electives (0-3 credits)	0-3

Fifth Professional Year

Clinical Block: Summer, Fall, Winter, Spring Quarters

Block hours billed across terms.

Course Code	Title	Credits
PSYCD 1905	Internship	50.0

Summer Quarter

Course Code	Title	Credits
PSYCD 1921	Dissertation Continuation I (Optional)	0.5

Fall Quarter

Course Code	Title	Credits
PSYCD 1922	Dissertation Continuation II (Optional)	0.5

Winter Quarter

Course Code	Title	Credits
PSYCD 1923	Dissertation Continuation III (Optional)	0.5

Spring Quarter

Course Code	Title	Credits
PSYCD 1924	Dissertation Continuation IV (Optional)	0.5

Electives

Course Code	Title	Credits
PSYCD 1340	Theories of Chemical Dependency & Interventions	3.0
PSYCD 1462	Trauma, Death and Dying	3.0
PSYCD 1463	Introduction to Telehealth for Clinical Psychologists	3.0
PSYCD 1473	Child & Adolescent Assessment I	3.0
PSYCD 1474	Child & Adolescent Assessment II	3.0
PSYCD 1475	Child & Adolescent Psychotherapy I	3.0
PSYCD 1476	Child & Adolescent Psychotherapy II	3.0
PSYCD 1478	Directed Readings in Clinical Psychology I	1.0-3
PSYCD 1479	Directed Readings in Clinical Psychology II	1.0-3
PSYCD 1480	Forensic Psychology	3.0
PSYCD 1488	Independent Study I	1.0-3
PSYCD 1489	Independent Study II	1.0-3
PSYCD 1494	Special Topics	1.0-3
PSCID 1379	LGBTQI Considerations in the Provision of Healthcare	1.0
CORED 1699H	Interprofessional Education II	1.0
PSYCD 1470	Human Sexuality	3.0

Electives

The Program offers a number elective courses which are offered periodically to provide enhanced education in particular areas of student interest.

Child and Adolescent Emphasis

Students may elect to pursue a specialized emphasis in clinical work with children and adolescents. This emphasis includes additional elective coursework in assessment and therapy with children, adolescents and families, as well as focused training and research experiences as outlined below. Required courses include:

- PSYCD 1671 Child Psychopathology
- PSYCD 1473 Child & Adolescent Assessment I (Elective)
- PSYCD 1474 Child & Adolescent Assessment II (Elective)
- PSYCD 1475 Child & Adolescent Psychotherapy I (Elective)
- PSYCD 1476 Child & Adolescent Psychotherapy II (Elective)
- PSYCD 1705 Family and Systems Theory and Application (Elective)

In order to enroll in electives within the Child and Adolescent emphasis, students must have successfully completed all required 1st and 2nd year courses. Students entering the program with advanced standing may seek permission from the emphasis director or program director.

In addition to the required courses, students who elect this emphasis are expected to meet the following requirements:

- At least two clinical training experiences focused on children & adolescents, one diagnostic, one therapy
- Dissertation topic required to have a child, adolescent, or family focus
- Mentorship-Group meetings with the Coordinator of Child & Adolescent Emphasis as scheduled
- At least one submission of a presentation or scholarly work that has a child or adolescent emphasis (poster, presenter) at local, state, or national conference; must be primary presenter or author.

Academic and Administrative Policies

Satisfactory Progress

Once students have matriculated, they must be enrolled in the program for fall, winter, spring and summer quarter until graduation. Credit hours can be earned during any academic quarter: fall, winter, spring, or summer. At the conclusion of each quarter, the Student Academic Review Committee assesses student progress based on academics, clinical performance, scholarly activity, professionalism, demonstration of satisfactory completion of all required program competencies, and faculty evaluations. Students must demonstrate satisfactory achievement levels in all of the program's education and training competency areas throughout their time in the program. Problems within any evaluative domain can lead to referral to the Program's Student Academic Review Committee (ARC) and may lead to a recommendation for dismissal from the program. The ARC addresses all academic problems according to the CHS academic policies published in the University Catalog and the MWU Student Handbook, as well as policies and procedures published in the Clinical Psychology Program Student Handbook, the Clinical Psychology Program Training Manual and the Clinical Psychology Dissertation Manual. Students are provided oral and written feedback about their progress periodically throughout the year through their faculty mentor, as well as through the Student Academic Review Committee as needed.

Academic Standards

A student enrolled in the Clinical Psychology Program must pass all Psy.D. courses with a minimum grade of B- or P and maintain a cumulative grade point average (GPA) of 3.00 or higher to achieve satisfactory academic progress. A course grade of <B- is considered a course failure and will appear on the student's transcript as an F.

If a student fails a course, the student may be required by the Program's Student Academic Review Committee to retake that course. Students will not be required to retake an elective course, but may be permitted to do so. Students will only be able to retake a failed course once. To successfully retake the course, the student needs to achieve a grade of B- or better in a graded course or a P in a Pass/Fail course. If a student fails the retaken course it will be considered as another failure by the Student Academic Review Committee and will be addressed accordingly in conjunction with the College of Health Sciences (CHS) academic policies.

Students who fail a course with a course average below 80% (B-) at the end of the quarter, may be eligible for re-examination of their lowest exam/project grade in the form of a cumulative exam or equivalent assessment. The course director will specify in the course syllabus which exams or grades are eligible for replacement and what type of re-examination will be utilized. A student will only be eligible for reexamination if the replacement of the lowest grade (project or examination) by a grade of 80% will allow the student to pass the course. The maximum grade to be awarded upon reexamination is 80% and maximum grade for the course is 80% (B-). Faculty members are available to answer specific questions but no formal review sessions will be conducted. Preparation for reexamination is largely an independent study endeavor. Students may only take one reexamination in a single course. The maximum number of reexaminations in the Clinical Psychology Program is two (2). Reexaminations will be scheduled by the course director, and all reexaminations must be completed prior to the start of the next quarter unless otherwise approved by the Program Director. Any student failing to take the reexamination on the scheduled date will receive a grade of zero (0) for the reexamination and fail the course. If reexamination results in failure, students will not have successfully completed all academic requirements in order to progress in the program. The student will be referred to the Academic Review Committee (ARC).

To progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter. Students who have not satisfactorily completed all academic requirements in order to progress in the program will be referred to the Student Academic Review Committee. The Student Academic Review Committee will review the student's academic record according to the College of Health Sciences academic policies and make a recommendation to the CHS Dean. Recommendations may include a leave of absence until the student can successfully complete the necessary Program requirements, or other academic consequences including dismissal.

Program-Based Competencies

In addition to academic grades, competency checkpoints are assessed throughout the program related to the Program's required competency domains. Failure to demonstrate required satisfactory performance on a program competency that is part of a course will lead to a course failure (grade of F). All program competency exams must be passed with a minimum grade of B- on a graded exam or a P on a Pass/Fail exam. If a student does not perform satisfactorily on a program-based competency, one retest for that competency will be allowed. Retest of the competency must be completed prior to the start of the next quarter unless otherwise approved by the Program director, or in the case of the Qualifying Examination, the next time the examination is offered.

To satisfactorily pass a competency retest, students will need to obtain the equivalent of a minimum grade of B- on a graded exam or a grade of P on a Pass/Fail exam. In cases where demonstration of competency is part of a course, students who satisfactorily pass the competency retest may only receive the minimal passing course grade (B- in graded course, P in Pass/Fail course). Failing a competency retest indicates that the student is unable to demonstrate the required competency during the course and will result in a course grade of F. It will result in the student's referral to the

Student Academic Review Committee. Failures in courses containing these program-based competencies will be addressed by the Student Academic Review Committee according to the College of Health Sciences academic policies.

Advancement to Doctoral Candidacy

At the conclusion of the second year of study, advancement to doctoral candidacy will be determined by the faculty upon review of the student's progress in the following areas:

1. Academic progress
2. Clinical performance
3. Scholarly activity
4. Professionalism
5. Demonstration of satisfactory performance for required program competencies in the first two years of the program
6. Faculty evaluation
7. Qualifying Examination

Successful completion of the Qualifying Examination and satisfactory progress in areas one through six listed above signals the official acceptance of the matriculated student as a doctoral candidate.

Unsatisfactory progress in any of the above areas will lead to review by the Student Academic Review Committee and may result in dismissal from the program.

Qualifying Examination

The purpose of the Qualifying Examination is to evaluate students' ability to integrate the core clinical and non-clinical course material from the first two years of study into comprehensive responses demonstrating organizational skills, analysis, synthesis, and differential thinking. The examination is given annually and is scheduled after the first two years of study, with satisfactory completion of the academic requirements for degree of Master of Arts in Clinical Psychology and the approval of the Student Academic Review Committee and the Program Director. The Qualifying Examination is a Program-based competency and evaluated on a Pass/Fail basis. Satisfactory completion of the Qualifying Examination is necessary in order to advance to Doctoral Candidacy and to complete the Clinical Psychology program.

Students failing the Qualifying Examination will be allowed one retake the next time the examination is offered. Students failing the Qualifying Examination will be given feedback and resources to help them prepare for retaking the examination. Satisfactory passage of all required competency gateways, including the Qualifying Examination, is required for satisfactory academic progress. Failure on the retake exam of the Qualifying Exam is considered grounds for dismissal from the Program.

Faculty

Nathaniel D. Krumdick, Ph.D.

Loyola University of Chicago
The Graduate School
Professor

Michelle M. Lee, Ph.D., ABPP

Case Western Reserve University
School of Graduate Studies
College of Arts and Sciences
Associate Program Director and Professor

Lorna London, Ph.D.

University of South Carolina
Director of Training and Associate Professor

Jeff Maney, Ph.D.

Norther Illinois University
Clinical Psychology Program
Assistant Professor

Connie Natvig, Ph.D.

Purdue University
Assistant Professor

Richard C. Ney, Ph.D., ABPP

Loyola University of Chicago
The Graduate School
Professor

Rachel A. Piszczor, Psy.D.

American School of Professional Psychology at Argosy
University/Washington DC
Associate Professor

Ann M. Sauer, Ph.D., ABPP

Loyola University of Chicago
The Graduate School
Program Director and Associate Professor

Lauren M. Sbarbaro, Psy.D.

Midwestern University
College of Health Sciences
Assistant Professor

Rebecca Tews, Ph.D.

Marquette University
Associate Professor

Tatiana Vukotic, Psy.D.

The Chicago School of Professional Psychology
Assistant Professor

Courses

CORED 1599H: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

CORED 1699H: Interprofessional Education II

This course will provide students, working in interprofessional teams, opportunities to learn and provide integrated, patient-centered care in the development of therapeutic care plans using a team-based approach. Active learning techniques, interprofessional learning, and clinical simulation will be used to enhance the education of learners to effectively engage in problem solving and communication activities that address current health related issues in the care of humans, animals, and the environment.

Credits 1.0

PSCID 1379: LGBTQI Considerations in the Provision of Healthcare

This course helps students better provide compassionate and thorough patient centered care to members of the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI) community. Lecture topics include an introduction to LGBTQI culture and history, health and social service needs, and communication strategies. Students learn how knowledge deficits in these areas can lead to health inequities for these populations.

Credits 1.0

PSYCD 1340: Theories of Chemical Dependency & Interventions

This course details the various models used in the treatment of alcohol and chemical abuse/dependency. Topics include psychopharmacologic interventions, group therapy, detoxification, Alcoholics Anonymous, cognitive therapy, and other empirically supported treatment approaches. A minimum enrollment of 5 students is required for this course to be offered.

Credits 3.0

PSYCD 1462: Trauma, Death and Dying

This course will explore the cross-cultural aspects of death and dying in the context of trauma and bereavement. Students will explore the various definitions of trauma from a cognitive, affective and behavioral perspective. Treatment approaches to grief, bereavement and complicated grief will be discussed. Students will be encouraged to explore their preexisting beliefs regarding grieving and loss, and will be asked to explore more functional ways of dealing with issues of bereavement.

Credits 3.0

PSYCD 1463: Introduction to Telehealth for Clinical Psychologists

This course provides a framework for the integration of technology with the practice of clinical psychology. The course will highlight important factors related to the use of telehealth interventions in practice. Topics include the historical context for the use of technology with healthcare services, the need for novel means of reaching individuals in need of care, ethical and legal considerations, HIPAA compliance, considerations for synchronous modalities, practice considerations for asynchronous modalities, mHealth, and supervision and consultation models.

Credits 3.0

PSYCD 1470: Human Sexuality

This course explores human sexuality as a central and multidimensional part of the human experience. Current theoretical approaches, research and empirically based interventions will be reviewed. Topics will include sexual behaviors, body image, vulnerability, sensuality, seduction, sexual function and dysfunction. The course will examine the role sexuality plays in psychotherapeutic relationships. Individual differences and cultural diversity will be addressed taking into account, age, ethnicity, gender, cultural, religious and social influences.

Credits 3.0

Prerequisites

[PSYCD 1550](#) Biological Bases of Behavior

PSYCD 1473: Child & Adolescent Assessment I

This course will explore the different assessments use when working with children and adolescents presenting with mild to moderate emotional/behavioral/developmental concerns (e.g., anxiety, mood disorders, ADHD, disruptive behavior). In addition to overviews of different assessment tools, the role or diagnostic interviewing with both caregivers and children will be reviewed.

Credits 3.0

Prerequisites

In order to enroll in electives within the Child and Adolescent emphasis, students must have successfully completed all required 1st and 2nd year courses. Students entering the program with advanced standing may seek permission from the emphasis director or program director.

PSYCD 1474: Child & Adolescent Assessment II

This course will explore the different emotional and behavioral assessment used when working with children and adolescents presenting with emotional and behavioral problems. A brief overview of child and adolescent psychopathology will be covered, as well as different assessment tools utilized to assess for several pathologies in children, including Bipolar Disorders, Autism Spectrum Disorders, and Childhood Schizophrenia.

Credits 3.0

Prerequisites

[PSYCD 1473](#) Child and Adolescent Assessment I; In order to enroll in electives within the Child and Adolescent emphasis, students must have successfully completed all required 1st and 2nd year courses. Students entering the program with advanced standing may seek permission from the emphasis director or program director.

PSYCD 1475: Child & Adolescent Psychotherapy I

This course will explore evidence-based psychosocial treatment strategies and interventions to address emotional/behavioral difficulties common to youth, as delineated in DSM-5. Focus will be given to the treatment of, but not necessarily limited to, Disruptive, Impulse-Control, and Conduct Disorders, ADHD, Anxiety Disorders, Obsessive-Compulsive and Related Disorders, and Depressive/Mood Disorders. Theories and research will be integrated with modeling and in-class practice of techniques, as appropriate.

Credits 3.0

Prerequisites

In order to enroll in electives within the Child and Adolescent emphasis, students must have successfully completed all required 1st and 2nd year courses. Students entering the program with advanced standing may seek permission from the emphasis director or program director.

PSYCD 1476: Child & Adolescent Psychotherapy II

This course will explore evidence-based psychosocial treatment strategies and interventions to address emotional/behavioral difficulties throughout youth, as delineated in the DSM-5. Focus will be given to the treatment of, but not necessarily limited to, Somatic Disorders, Elimination Disorders, Sleep Disorders, Feeding/Eating Disorders, and Trauma. Theories and research will be integrated with modeling and in-class practice of techniques, as appropriate.

Credits 3.0

Prerequisites

[PSYCD 1475](#) Child and Adolescent Psychotherapy I; In order to enroll in electives within the Child and Adolescent emphasis, students must have successfully completed all required 1st and 2nd year courses. Students entering the program with advanced standing may seek permission from the emphasis director or program director.

PSYCD 1478: Directed Readings in Clinical Psychology I

This course permits focused exploration of an approved topic in clinical or professional psychology. With the consultation of a program faculty member, a reading list is developed around a relevant topic. The readings focus on the interchange between theory, research, professional practice and diversity issues. A comprehensive plan for evaluation of performance is developed in consultation with program faculty and the approval of the Program Director.

Credits 1.0-3

PSYCD 1479: Directed Readings in Clinical Psychology II

This course permits focused exploration of an approved topic in clinical or professional psychology. With the consultation of a program faculty member, a reading list is developed around a relevant topic. The readings focus on the interchange between theory, research, professional practice and diversity issues. A comprehensive plan for evaluation of performance is developed in consultation with program faculty and the approval of the Program Director.

Credits 1.0-3

PSYCD 1480: Forensic Psychology

The science and practice of clinical psychology will be applied to the assessment and treatment of offender populations. Examples will include cultural, social and economic issues in working with forensic populations in inpatient, legal and institutional settings. A minimum enrollment of 5 students is required for this course to be offered.

Credits 3.0

Prerequisites

[PSYCD 1501](#) Professional Issues and Ethics

PSYCD 1488: Independent Study I

This course permits the student to pursue individualized study in foundational psychology, empirical research, clinical psychology or a related topic under the direct supervision of a faculty member. A comprehensive study plan with methods for evaluation of performance is developed in consultation with program faculty and the approval of the Program Director.

Credits 1.0-3

Prerequisites

Approval of Program Director

PSYCD 1489: Independent Study II

This course permits the student to pursue individualized study in foundational psychology, empirical research, clinical psychology or a related topic under the direct supervision of a faculty member. A comprehensive study plan with methods for evaluation of performance is developed in consultation with program faculty and the approval of the Program Director.

Credits 1.0-3

Prerequisites

Approval of Program Director

PSYCD 1494: Special Topics

This course permits examination of an approved specialized topic in clinical or professional psychology. Courses focus on the interchange between theory, research, professional practice and diversity issues in that topic area. This course can include a variety of topic areas not addressed in other courses including Crisis Intervention, Autism Spectrum, Geriatric Psychology, etc.

Credits 1.0-3

Prerequisites

Approval of Program Director

PSYCD 1501: Professional Issues and Ethics

Legal, ethical, and professional issues are discussed in the context of the delivery of mental health services. This includes the American Psychological Association Ethical Standards and Code of Conduct (APA, 2017), current practice guidelines, state and federal mental health law and regulations relating to privacy and confidentiality in interdisciplinary contexts, ethical standards in research, and issues related to competency, licensure and lifelong learning.

Credits 3.0

PSYCD 1502: LifeSpan Development I

Life Span Development I is the foundational course intended to provide a theoretical framework for working with children and adolescents. The course will build upon undergraduate courses highlighting human development. It will examine the major human developmental issues from birth through adolescence related to the physical, biological, cognitive, social, and emotional functioning for both normal and abnormal development. Topics will include theories of child development, prenatal considerations, early skill acquisition, family-related social/emotional/behavioral development, peer-related social/emotional/behavioral development, influences of maltreatment, gender development, and personality development. Assessment, interventions, and prevention models related to abnormal development will also be addressed, and the course will provide an overview of more severe pathology that originates in childhood.

Credits 3.0

PSYCD 1503: Life Span Development II

This course examines the biopsychosocial factors in adult development and aging. Topics include physical, psychological, and social changes that occur from early adulthood through senescence, and normal and abnormal changes through this cycle including cognitive changes. The course examines the role of work, career, and retirement as it impacts on basic adult life processes. The prospect of death and dying is also covered. Individual diversity factors and interdisciplinary collaboration are emphasized.

Credits 3.0

Prerequisites

[PSYCD 1502](#) Life Span Development I

PSYCD 1504: Research Methods and Design

This course is a survey of the methods used in empirical and clinical research, program evaluation, and intervention outcome studies. Students will learn both experimental and quasi-experimental designs. Strategies for research design, subject selection, and statistical analysis will also be examined. Special emphasis is placed on students developing their own original research protocols and the practical considerations involved.

Credits 3.0

PSYCD 1505: Professional Development Seminar I

Each seminar reviews the professional development of entry level students. Students meet with faculty to discuss issues related to their professional development in their pursuit education and training to become clinical psychologists. Each seminar is evaluated on a pass/fail basis.

Credits 1.0

PSYCD 1506: Professional Development Seminar II

Each seminar reviews the professional development of entry level students. Students meet with faculty to discuss issues related to their professional development in their pursuit education and training to become clinical psychologists. Each seminar is evaluated on a pass/fail basis.

Credits 1.0

PSYCD 1507: History and Systems

This course is a survey of the historical development of both experimental and clinical psychology. Major systems of psychology include sensory-perceptual psychology (Gestalt), Freudian, psychodynamic, behavioral, cognitive, social, family, humanistic, and existential. Major theorists such as Freud, Adler, Jung, Maslow, Skinner, Piaget, Beck, and Meichenbaum are examined.

Credits 3.0

PSYCD 1508: Research Methods II

Building on the skills and techniques acquired in [PSYCD 1504](#) (Research Methods and Design), this course explores research in various applied settings, and further explores the direct relationship between research and clinical practice. Special emphasis is placed on students developing their own original research protocols and the practical considerations involved.

Credits 3.0

Prerequisites

[PSYCD 1504](#) Research Methods and Design

PSYCD 1510: Statistics I

The course examines basic statistical measures including parametric and nonparametric tests at both the theoretical and applied levels. The course will allow the student to understand the statistical methods used in clinical research. Emphasis is placed on the preparation of the students for their own clinical dissertation research.

Credits 3.0

Prerequisites

[PSYCD 1504](#) Research Methods and Design

PSYCD 1515: Tests and Measurements

This course focuses on scientific bases for psychological testing. The course examines the philosophical, historical, and theoretical foundations of psychological testing, assessment and measurement. The course also addresses the methodological and statistical basis for psychological assessment, including test construction, validity, reliability, and other applications important for test interpretation.

Credits 3.0

PSYCD 1520: Clinical Appraisal and Interviewing

This course provides the clinical psychology trainee with a comprehensive approach to learning the techniques of clinical interviewing and diagnostic assessment. The student will learn what questions to ask and how to structure and guide the clinical interview. Development of clinical interviewing skills is both didactic and experiential with the student conducting mock interviews of patients. Students are introduced to diagnostic assessment, active listening, psychological inference and basic report writing.

Credits 3.0

PSYCD 1524: Intelligence Testing I

This course introduces the student to the theory, administration, scoring, and interpretation of standard intelligence tests. Intellectual assessment scales examined include the Stanford-Binet, and the various Wechsler Scales. Basic interpretation and report writing skills are developed. Biopsychosocial, cultural, ethnic, and disability factors affecting test validity and interpretation are also examined.

Credits 3.0

Prerequisites

Concurrent enrollment in [PSYCD 1525](#) Intelligence Testing II

PSYCD 1525: Intelligence Testing II

The purpose of this course is to emphasize the use of clinical instruments to assess cognitive functioning of children and adults. The course is designed to develop competency in administration, scoring, and report writing. It consists of lectures, demonstrations, practice administrations, and individual checkouts of competencies in test administration. The students receive constructive feedback in areas related to test administration, scoring, interpretation of results and report writing.

Credits 3.0

Prerequisites

Concurrent enrollment in [PSYCD 1524](#) Intelligence Testing I

PSYCD 1526: Personality Assessment I: Objective Techniques

This course introduces the student to the administration, interpretation, and scoring of the objective tests for personality assessment. Tests examined include the MMPI-3, and Millon Scales. Basic interpretation and report writing skills are taught for the objective personality assessment instruments. Biopsychosocial, cultural, ethnic, gender, and disability factors affecting assessment validity and interpretation are also examined.

Credits 3.0

Prerequisites

[PSYCD 1524](#) Intelligence Testing I; [PSYCD 1525](#) Intelligence Testing II; Concurrent enrollment in [PSYCD 1527](#)

Personality Assessment II: Projective Techniques

PSYCD 1527: Personality Assessment II: Projective Techniques

This course provides the clinical psychology student with instruction and practice in the administration, scoring, and interpretation of the projective techniques including the Rorschach, Thematic Apperception Test, Children's Apperception Test, and projective drawings. The course addresses relevant cultural, ethnic, gender, and disability factors in considering interpretation of results and in the development of integrative report writing.

Credits 2.0

Prerequisites

[PSYCD 1524](#) Intelligence Testing I; [PSYCD 1525](#) Intelligence Testing II; Concurrent enrollment in [PSYCD 1526](#)

Personality Assessment I: Objective Techniques

PSYCD 1550: Biological Bases of Behavior

This course provides an overview of the biological processes underlying human behavior. This encompasses fundamental nervous system structures and processes, including evolutionary theory, genetics, neuroanatomy, synaptic transmission, sensory processing, neurodevelopment, and neuroplasticity.

Credits 3.0

PSYCD 1582: Clerkship I

The clerkship sequence is a supervised pre-practicum field experience for students, focusing on the development of clinical and clinical research skills. A clerkship may take place in a number of settings under the direct supervision of program faculty. Students work at training sites in a variety of clinical and research roles. A student must complete a minimum of 2 credits of clerkship.

Credits 1.0

Prerequisites

Approval of Program Director

PSYCD 1583: Clerkship II

The clerkship sequence is a supervised pre-practicum field experience for students, focusing on the development of clinical and clinical research skills. A clerkship may take place in a number of settings under the direct supervision of program faculty. Students work at training sites in a variety of clinical and research roles. A student must complete a minimum of 2 credits of clerkship.

Credits 1.0

Prerequisites

Approval of Program Director

PSYCD 1610: Diversity in Clinical Psychology

Using a biopsychosocial model, this course examines the impact of culture, race, ethnicity, sexual orientation and gender identity, socioeconomic status, and religion on theory and practice in clinical psychology. The course looks at the interaction between the clinician's own perceptions of culture and that of the patient. The impact of ethnicity, economics, disability, gender, and race is also discussed as it affects the delivery of psychological and psychiatric services. The societal impact due to differential access to services is also examined along with possible solutions to this problem.

Credits 3.0

PSYCD 1611: Statistics II

This course is designed to promote learning of additional statistical methods used to analyze and interpret quantitative data, focusing on the implementation of statistical methods for experimentation, research, and data-driven decisionmaking. Appropriate statistical software packages will be reviewed.

Credits 3.0

Prerequisites

[PSYCD 1510](#) Statistics I

PSYCD 1620: Advanced Assessment

This course concentrates on the development of knowledge, skills and attitudes needed in the interpretation and reporting of test findings. Emphasis is placed on a synergistic understanding of the contributions of various test findings to the formulation of a valid diagnostic impression and recommendations. Examination of differential diagnoses, formulating a case conceptualization and recommendations, clinical report writing and feedback are reviewed with consideration of diversity issues.

Credits 3.0

Prerequisites

[PSYCD 1520](#) Clinical Appraisal and Interviewing; [PSYCD 1524](#) Intelligence Testing I; [PSYCD 1525](#) Intelligence Testing II; [PSYCD 1526](#) Personality Assessment I: Objective Techniques; [PSYCD 1527](#) Personality Assessment II: Projective Techniques

PSYCD 1631: Cognitive Behavioral Theories and Approaches to Psychotherapy

Starting with the pioneering work of Beck and Ellis and progressing to the current theory and practice, this course examines the major paradigm shift in clinical psychology with the so-called "Cognitive Revolution." The course reviews the impact of cognitive therapy on the development of empirically verified treatment approaches. It also reviews the current research supporting the use of a cognitive psychotherapy approach with certain diagnostic conditions and diverse populations.

Credits 3.0

Prerequisites

[PSYCD 1507](#) History and Systems; [PSYCD 1636](#) Behavior Therapy; [PSYCD 1660](#) Cognitive-Affective Bases of Behavior

PSYCD 1632: Psychodynamic Approaches to Psychotherapy

Beginning with the seminal work of Freud, this course examines the development of the rich and diverse psychodynamic approaches to theory and technique. The drive, ego, object relations and self-psychological models are reviewed and contrasted. Application of psychodynamic theory in treatment is also discussed. Case studies are used to exemplify the various techniques used in the psychodynamic approach.

Credits 3.0

Prerequisites

[PSYCD 1520](#) Clinical Appraisal and Interviewing; [PSYCD 1507](#) History and Systems;

PSYCD 1636: Behavior Therapy

This advanced course will examine the application of learning theory to behavior therapy and CBT as applied to a variety of psychopathologies, behavior disorders, and other mental health conditions in adults. Behavioral and cognitive-behavioral therapy techniques shown to be most effective in the treatment/remediation of symptoms and psychopathological conditions will be introduced. Also examined will be how behavior therapy is applied to various, sometimes underserved populations such as individuals with chronic mental illness and individuals with different ethnic, racial, or cultural backgrounds.

Credits 3.0

Prerequisites

[PSYCD 1507](#) History and Systems

PSYCD 1640: Introduction to Neuropsychology

This course reviews the major systems and structures of the brain and central nervous system. In addition to examining normal neurological functioning, the course discusses common impairments in cognition, language, and perception with neurological bases. Topics covered include neurological syndromes such as cerebral vascular accidents (CVAs), head trauma and concomitant brain injury, seizure disorders, and various forms of dementia. Case studies and neuropsychological test data highlight each syndrome.

Credits 3.0

Prerequisites

[PSYCD 1515](#) Tests and Measurements; [PSYCD 1550](#) Biological Bases of Behavior

PSYCD 1654: Social and Cultural Bases of Behavior

This course examines the influence of socioeconomic, diversity, and cultural influences on behavior. Normative behavior is examined in the biopsychosocial context. Also covered is the consideration of individual behavior in new, diverse, or unfamiliar sociocultural contexts.

Credits 3.0

Prerequisites

[PSYCD 1502](#) Life Span Development I

PSYCD 1660: Cognitive-Affective Bases of Behavior

This is a discussion of topics related to the cognitive and affective bases of behavior. Specific cognitive processes such as learning, perception, memory, mental representations, and embodiment are reviewed. In addition, the roles of motivation and emotion in behavior are discussed. Special emphasis will be placed on examining the biological underpinnings of cognitive and how neuroimaging is used to prove cognition function in different populations.

Credits 3.0

Prerequisites

[PSYCD 1550](#) Biological Bases of Behavior

PSYCD 1669: Psychopathology I: Anxiety and Personality Disorders

The course provides students with theory and research underlying anxiety and personality disorders. Topics include introduction to categorical vs. dimensional classification of dual diagnoses, anxiety disorders, obsessive-compulsive and related disorders, trauma and stressor-related disorders, somatic symptom and related disorders, dissociative disorders, and personality disorders. Biopsychosocial aspects of disorders are reviewed. Diagnostic differentiation and empirically supported assessment and treatment approaches are presented. Inter-individual diversity and interdisciplinary aspects of care related to diagnostics are highlighted.

Credits 3.0

Prerequisites

[PSYCD 1520](#) Clinical Appraisal and Interviewing

PSYCD 1670: Psychopathology II: Depressive, Bipolar and Schizophrenia Spectrum Disorders

This course will provide students with an introduction to underlying depressive disorders, bipolar and related disorders, and schizophrenia spectrum and other psychotic disorders. Other topics covered include suicide, neurocognitive disorders, feeding and eating disorders, sexual dysfunctions, gender dysphoria, and paraphilic disorders. Clinical presentations, diagnostic differentiation, biopsychosocial understanding, and empirically supported assessment and therapy are presented and discussed. Case studies are used to present variations in symptom presentation. The roles of culture, gender, ethnic, age, and disability factors are also discussed as are interdisciplinary aspects of care related to diagnostics.

Credits 3.0

Prerequisites

[PSYCD 1669](#) Psychopathology I: Anxiety and Personality Disorders

PSYCD 1671: Child Psychopathology

This course provides a broad overview of child and adolescent psychopathology, including a focus on understanding basic concepts (e.g., DSM-V diagnostic criteria), issues related to classification and assessment, the historical context of disorders, developmental influences (including maltreatment), theoretical perspectives, existing research. An introduction to assessment, diagnosis, case conceptualization, and developing treatment interventions will also be covered.

Credits 3.0

Prerequisites

[PSYCD 1502](#) Life Span Development I; [PSYCD 1520](#) Clinical Appraisal and Interviewing; [PSYCD 1669](#)

Psychopathology I: Anxiety and Personality Disorders; [PSYCD 1670](#) Psychopathology II: Depressive, Bipolar and Schizophrenia Spectrum Disorders

PSYCD 1673: Diagnostic Practicum

This course sequence is designed to provide the practical experiences in psychodiagnostics that are appropriate for the training of practitioners in clinical psychology. Students complete a diagnostic practicum at an approved training site. Students must complete a minimum of 15 quarter hours in the block. Enrollment may begin in summer or fall quarter.

Credits 15.0-20

Prerequisites

Approval of Director of Training, Academic Review Committee, and Program Director; Concurrent enrollment in [PSYCD 1674](#) Diagnostic Practicum Seminar. For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1674: Diagnostic Practicum Seminar

Students come together from various diagnostic practicum sites for the purpose of supervision and discussion of the clinical experience. Students are supervised in order to maximize the learning experience in the clinical setting.

Credits 6.5

Prerequisites

Approval of Director of Training, Academic Review Committee, and Program Director; For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1680: Research Seminar: Integration of Science and Practice

This course provides an extensive review of the research process through examination of published empirical and clinical research articles. Students are expected to become good consumers of the research literature in order to develop sound research habits and identify the empirical support for evidence based practice.

Credits 2.0

Prerequisites

[PSYCD 1504](#) Research Methods and Design; [PSYCD 1508](#) Research Methods II; [PSYCD 1510](#) Statistics I; [PSYCD 1611](#) Statistics II

PSYCD 1705: Family and Systems Theory and Application

The family as a system will be reviewed by examining external and internal boundaries, internal hierarchy, self-regulation through feedback, and lifecycle changes. Theory and research will be discussed within the context of relevant cultural, age, gender, and ethnic factors.

Credits 3.0

Prerequisites

[PSYCD 1502](#) Life Span Development I; [PSYCD 1503](#) Life Span Development II; [PSYCD 1507](#) History and Systems

PSYCD 1708: Advanced Ethics

This course will focus on ethical decision making and the practical application of ethical principles to examine ethical and legal dilemmas utilizing a case-based format.

Credits 3.0

Prerequisites

[PSYCD 1501](#) Professional Issues and Ethics

PSYCD 1732: Supervision

This course examines the aspects of clinical supervision, the supervisory processes and the pertinent theories and practice models for supervision in a variety of employment settings. The course will highlight the skills and qualities of the supervisor and supervisee while focusing on ways to promote effective supervision.

Credits 2.0

PSYCD 1733: Consultation Models and Practice

This course reviews the pertinent theories and practice models for consultation in a variety of employment settings. This course is focused on the knowledge of consultation models and application of consultation skills.

Credits 2.0

PSYCD 1742: Group Theory and Application

This course is an advanced study of group psychotherapy. A variety of theoretical approaches are explored. This course examines the use of group techniques for various psychological conditions such as depression, PTSD, and others. It also focuses on working with diverse populations.

Credits 2.0

PSYCD 1750: Psychopharmacology

This course examines the development and use of pharmacological agents in the treatment of psychopathology. Further, the course examines the use of medication with empirically verified therapy approaches. All classes of psychopharmacological agents are reviewed including neuroleptics, anxiolytics, mood stabilizers, and antidepressants.

Credits 3.0

Prerequisites

[PSYCD 1550](#) Biological Bases of Behavior

PSYCD 1766: Advanced Integration of Scientific Knowledge

This course reviews, expands, and integrates the basic knowledge base of scientific psychology first established in previous foundational, discipline specific knowledge courses on the affective, biological, cognitive, developmental, and social bases of behavior. Knowledge from these discipline specific courses is integrated and then applied to a variety of clinical issues, demonstrating comprehensive, scientific understanding of core knowledge of behavior and of psychology as a broader, inclusive discipline.

Credits 3.0

Prerequisites

[PSYCD 1502](#) Lifespan Development I; [PSYCD 1503](#) Lifespan Development II; [PSYCD 1550](#) Biological Bases of Behavior; [PSYCD 1654](#) Social and Cultural Bases of Behavior; [PSCYD 1660](#) Cognitive-Affective Bases of Behavior

PSYCD 1773: Therapy Practicum

The therapy practicum sequence involves direct clinical experiences at an approved training location. Students are enrolled while completing the required therapy practicum. Students must complete a total of 15 credits in the block. Enrollment may begin in summer or fall quarter.

Credits 15.0-20

Prerequisites

[PSYCD 1673](#) Diagnostic Practicum; Concurrent enrollment in [PSYCD 1774](#) Therapy Practicum Seminar. Approval of Director of Training, Academic Review Committee, and Program Director. For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1774: Therapy Practicum Seminar

This seminar sequence reviews the progress of students enrolled in a therapy practicum at an approved training location. Students are required to meet on campus to review training experiences and present clinical cases to the attendees.

Credits 6.5

Prerequisites

[PSYCD 1674](#) Diagnostic Practicum Seminar; Approval of Director of Training, Academic Review Committee, and Program Director. For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1776: Health Psychology

This course introduces Health Psychology concepts and empirically supported interventions as they apply to multidisciplinary assessments and treatment of medical populations. The course focuses on applying this information to health promotion, prevention, and treatment.

Credits 3.0

Prerequisites

[PSYCD 1550](#): Biological Bases of Behavior

PSYCD 1777: Integrated Healthcare

This course will focus on the practice of integrated behavioral healthcare in medical settings. Students will learn about the roles and responsibilities of psychologists as behavioral healthcare providers in primary care medicine. Much of the focus of the course will be on learning about models of integrated care and ways in which these models are applicable to clinical work with patients. Students will also learn about roles that psychologists play in the collaborative assessment and treatment of chronic medical conditions.

Credits 3.0

PSYCD 1811: Dissertation I

This course is designed to facilitate completion of the Dissertation during the fourth year of the program. Once enrolled, the student must be enrolled in this sequence for 4 consecutive quarters. A student must complete a maximum total of 8 credits.

Credits 2.0

Prerequisites

Successful proposal of the dissertation. For more information refer to the current Dissertation Manual. Approval of Program Director

PSYCD 1812: Dissertation II

This course is designed to facilitate completion of the Dissertation during the fourth year of the program. Once enrolled, the student must be enrolled in this sequence for 4 consecutive quarters. A student must complete a maximum total of 8 credits.

Credits 2.0

Prerequisites

Successful proposal of the dissertation. For more information refer to the current Dissertation Manual. Approval of Program Director

PSYCD 1813: Dissertation III

This course is designed to facilitate completion of the Dissertation during the fourth year of the program. Once enrolled, the student must be enrolled in this sequence for 4 consecutive quarters. A student must complete a maximum total of 8 credits.

Credits 2.0

Prerequisites

Successful proposal of the dissertation. For more information refer to the current Dissertation Manual. Approval of Program Director

PSYCD 1814: Dissertation IV

This course is designed to facilitate completion of the Dissertation during the fourth year of the program. Once enrolled, the student must be enrolled in this sequence for 4 consecutive quarters. A student must complete a maximum total of 8 credits.

Credits 2.0

Prerequisites

Successful proposal of the dissertation. For more information refer to the current Dissertation Manual. Approval of Program Director

PSYCD 1822: Professional Development and Lifelong Learning I

Professional Development and Lifelong Learning is a sequence of courses addressing the factors and processes that advance students' professional development and promote an emphasis on lifelong learning. This includes preparation for entry level practice, the business aspects of practice, preparation for licensure, and maintenance of competency. This four-part sequence must be taken in numerical order.

Credits 4.0

Prerequisites

Successful proposal of the dissertation, approval of Director of Training, Academic Review Committee, and Program Director

PSYCD 1823: Professional Development and Lifelong Learning II

Professional Development and Lifelong Learning is a sequence of courses addressing the factors and processes that advance students' professional development and promote an emphasis on lifelong learning. This includes preparation for entry level practice, the business aspects of practice, preparation for licensure, and maintenance of competency. This four-part sequence must be taken in numerical order.

Credits 4.0

Prerequisites

Successful proposal of the dissertation, approval of Director of Training, Academic Review Committee, and Program Director

PSYCD 1824: Professional Development and Lifelong Learning III

Professional Development and Lifelong Learning is a sequence of courses addressing the factors and processes that advance students' professional development and promote an emphasis on lifelong learning. This includes preparation for entry level practice, the business aspects of practice, preparation for licensure, and maintenance of competency. This four-part sequence must be taken in numerical order.

Credits 4.0

Prerequisites

Successful proposal of the dissertation, approval of Director of Training, Academic Review Committee, and Program Director

PSYCD 1825: Professional Development and Lifelong Learning IV

Professional Development and Lifelong Learning is a sequence of courses addressing the factors and processes that advance students' professional development and promote an emphasis on lifelong learning. This includes preparation for entry level practice, the business aspects of practice, preparation for licensure, and maintenance of competency. This four-part sequence must be taken in numerical order.

Credits 4.0

Prerequisites

Successful proposal of the dissertation, approval of Director of Training, Academic Review Committee, and Program Director

PSYCD 1873: Advanced Therapy Practicum

The advanced practicum involves direct clinical experiences at an approved training location. Students are enrolled while completing the required advanced practicum. Students must complete a total of 15 credits in the block. Enrollment may begin in summer or fall quarter.

Credits 15.0-20

Prerequisites

[PSYCD 1773](#) Therapy Practicum; Concurrent enrollment in [PSYCD 1874](#) Advanced Therapy Practicum Seminar; Approval of Director of Training, Academic Review Committee, and Program Director. For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1874: Advanced Therapy Practicum Seminar

This seminar reviews the progress of students enrolled in an advanced practicum at an approved training location. Students are required to meet on campus to review training experiences and present clinical cases to the attendees.

Credits 5.0

Prerequisites

[PSYCD 1774](#) Therapy Practicum Seminar; Approval of Director of Training, Academic Review Committee, and Program Director. For more information refer to the current Clinical Psychology Clinical Training Manual.

PSYCD 1905: Internship

The internship is a 12-month full-time commitment (2,000 hours) that is designed to provide an intensive clinical experience expanding upon the required didactic coursework, clerkship, diagnostic practicum, therapy practicum, and advanced practicum experiences. In some approved circumstances, students may complete the requirement in 24 months. (This replaces PSYCD 1900,1901,1902, and 1903 Internship.) Enrollment is required for four consecutive quarters, 50 credits total. Enrollment may begin in Summer or Fall quarter.

Credits 50.0

Prerequisites

[PSYCD 1582](#),1583 Clerkship I, II; [PSYCD 1682,1684,1686](#) Diagnostic Practicum I, II, II; [PSYCD 1782,1784,1786](#) Therapy Practicum I, II, III; [PSYCD 1882,1884,1886](#) Advanced Practicum I, II, III; Successful completion of all coursework, Dissertation proposal, and Qualifying Examination; Approval of Program Director and Director of Training

PSYCD 1921: Dissertation Continuation I (Optional)

This course sequence is reserved for students on internship needing additional time for completion of the required Dissertation.

Credits 0.5

Prerequisites

[PSYCD 1814](#) Dissertation IV; Concurrent enrollment in [PSYCD 1905](#) Internship; Approval of Program Director

PSYCD 1922: Dissertation Continuation II (Optional)

This course sequence is reserved for students on internship needing additional time for completion of the required Dissertation.

Credits 0.5

Prerequisites

[PSYCD 1814](#) Dissertation IV; Concurrent enrollment in [PSYCD 1905](#) Internship; Approval of Program Director

PSYCD 1923: Dissertation Continuation III (Optional)

This course sequence is reserved for students on internship needing additional time for completion of the required Dissertation.

Credits 0.5

Prerequisites

[PSYCD 1814](#) Dissertation IV; Concurrent enrollment in [PSYCD 1905](#) Internship; Approval of Program Director

PSYCD 1924: Dissertation Continuation IV (Optional)

This course sequence is reserved for students on internship needing additional time for completion of the required Dissertation.

Credits 0.5

Prerequisites

[PSYCD 1814](#) Dissertation IV; Concurrent enrollment in [PSYCD 1905](#) Internship; Approval of Program Director

PSYCD 1990: Dissertation Post-Internship I

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1991: Dissertation Post-Internship II

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1992: Dissertation Post-Internship III

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1993: Dissertation Post-Internship IV

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1994: Dissertation Post-Internship V

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1995: Dissertation Post-Internship VI

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1996: Dissertation Post-Internship VII

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1997: Dissertation Post-Internship VIII

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1998: Dissertation Post-Internship IX

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

PSYCD 1999: Dissertation Post-Internship X

This course is reserved for students needing additional time after internship for completion of the required Dissertation. A fee will be assessed for students who are registered for this course beyond year 5 of the program.

Credits 0.5

Prerequisites

Approval of Program Director

Speech-Language Pathology Program

Mission

The Midwestern University Speech-Language Pathology Program is dedicated to the professional development of speech-language pathologists to work in a variety of educational and healthcare settings. As clinical practitioners they will serve the communication and swallowing needs of individuals from a variety of cultural, linguistic, and neurologically diverse backgrounds across the lifespan through responsive, compassionate, ethical, and evidence-based practice.

Vision

We seek to transform outstanding students into clinical practitioners who dedicate themselves to the highest standards of the profession of speech-language pathology. They will execute the full scope of clinical practice on behalf of individuals from a variety of cultural, linguistic, and neurologically diverse backgrounds across the lifespan through responsive, compassionate, ethical, and evidence-based practice with communication and swallowing disorders.

Accreditation

Midwestern University is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413. Speech-Language Pathology programs are accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA).

The Master of Science (M.S.) education program in Speech-Language Pathology (SLP) at Midwestern University (MWU) is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700.

Diversity and Inclusion

The Speech-Language Pathology program at Midwestern University, Downers Grove Campus is committed to providing an equitable, inclusive, and supportive environment to all members of the program, college, the University, and the community at large. The program acknowledges that opportunities exist to expand and enhance educational offerings that address disparities in patient outcomes and recognizes that the unaddressed presence of implicit and explicit bias in healthcare education, specifically in speech-language pathology, contravenes professional and ethical expectations of all students and graduates.

The program is unequivocal in its support of underrepresented and historically marginalized groups based on several constructs including but not limited to age, gender, race, ethnicity, sexual orientation, gender expression and identity, religion, political affiliation, socio-economic background, nationality and physical/intellectual ability. We will actively seek to recruit, mentor, support, and retain individuals from marginalized communities and those underrepresented in the field of speech-language pathology. We acknowledge that diverse ideas and backgrounds are the hallmarks of academic success and productivity. As such, we will strive to foster a welcoming, safe, professional, and intellectual environment for all faculty, staff, and students in the program. Additionally, we aim to provide equitable clinical, academic, and research opportunities in the field of speech-language pathology to individuals belonging to diverse communities and will contribute to professional efforts to reduce disparities in healthcare related to speech-language pathology."

Degree Description

The Speech-Language Pathology Program provides academic and clinical experiences that culminate in the Master of Science (M.S.) in Speech-Language Pathology degree. The curriculum is designed to prepare students for a professional role as a speech-language pathologist (SLP). Graduates of this program will be poised to assume positions as entry-level clinicians as part of a healthcare or educational team. The Speech-Language Pathology degree program is a continuous, full-time program of study that spans seven quarters, or 21 months from admission to graduation (Traditional Track). The current degree program offers an additional full-time program of study option that spans 8 quarters, or 24 months from admission to graduation (Leveling Track). The maximum allotted time for completion of the program is 31.5 months

The Speech-Language Pathology Program offers a balanced curriculum to prepare future SLPs to work with both children and adults with communication disorders. Course elements are designed to imbue students with the knowledge base pertinent to the field, while simultaneously fostering the critical thinking, problem solving, and self-confidence that contributes to effective independent clinical practice. Further, students will develop empathy and compassion, which are hallmark traits of a master clinician.

The Speech-Language Pathology Program curriculum incorporates academic, research, and clinical experiences. The curriculum includes basic science and research coursework, in addition to courses that focus on specific communication disorders. Each student will explore the evidence base of speech-language pathology and related professions, and will apply knowledge gained to clinical practices. All students will learn about basic research methods within the discipline, and can elect to complete research that culminates in a master's thesis. Students will engage in clinical practica at the Midwestern University Clinic and at local schools and healthcare facilities. Each student will complete two advanced practica of at least 10 weeks duration. These involve full-time work in an educational facility, hospital or clinic. Students will gain clinical experiences with a wide variety of clients with communication impairment.

The Speech-Language Pathology Program is designed to prepare entry-level speech-language pathologists. Graduates will be able to demonstrate evidence of all knowledge and skill requirements to begin a Clinical Fellowship Year (CFY). At the completion of the CFY, graduates will be eligible to apply for the Certificate of Clinical Competence from the American Speech-Language-Hearing Association. Students will also be eligible to apply for state licensure through the Illinois Department of Financial and Professional Regulation (IDFPR), and a professional educator's license through the Illinois State Board of Education.

Program Objectives

The Master of Science in Speech-Language Pathology Program seeks to:

1. Foster a humanistic learning environment for students;
2. Foster a holistic and compassionate approach to patient care;
3. Graduate competent speech-language pathologists who possess the levels of clinical judgment, understanding, empathy, technical skills, and independence to begin professional practice;
4. Instill a philosophy of lifelong learning in speech-language pathology students;
5. Promote research and scholarly activity among the faculty and students;
6. Develop a clinical practice in the Midwestern University Clinic that provides a broad range of evidence-based experiences for speech-language pathology students;
7. Contribute to the overall growth and academic excellence of Midwestern University by supporting its Mission and Vision.

Admissions

The College of Health Sciences Speech-Language Pathology Program considers admission of those applicants who demonstrate academic and clinical aptitude coupled with professionalism. A competitive admissions framework is implemented to select program candidates. Each file is evaluated by a faculty committee using a specific program rubric.

The Midwestern University Speech-Language Pathology Program uses the Communication Sciences and Disorders Centralized Application Service (CSDCAS) for students applying to the program. Applicants should submit all materials by March 1, 2024 in order to be considered (<http://www.capcsd.org/csdcas>). Please refer to the CSDCAS website for instructions on submission of application materials.

The Speech-Language Pathology Program operates on a rolling admissions cycle. Completed applications are reviewed throughout the cycle to determine applicant eligibility for interviews. Interviews are typically conducted during the winter and spring quarters. Admissions decisions are generally made within one month of the interview. The Program does not accept students who transfer from another Speech-Language Pathology Program.

Admission Requirements

Individuals applying for admission to the College of Health Sciences Speech-Language Pathology Program must submit documentation of the following minimum requirements before the academic year commences for the incoming class:

1. Completion of a baccalaureate degree from a regionally-accredited institution in Communication Sciences and Disorders, inclusive of the courses listed below, or
2. Completion of a baccalaureate degree from a regionally-accredited institution in an area other than Communication Sciences and Disorders with completion of a specified sequence of prerequisite coursework including all of the following:
 - Anatomy and Physiology of Communication Mechanisms
 - Phonetics
 - Speech and Language Development
 - Speech and Hearing Science
 - Statistics
 - One course each in biological sciences, physical sciences, and social sciences
3. Minimum undergraduate grade point average (GPA) of 3.0 on a 4.0 scale. Grades of C or better for prerequisite courses; grades of C- are not acceptable.
4. Minimum grade point average (GPA) of 3.0 on a 4.0 scale in the undergraduate major.
5. Oral and written communication skills necessary to interact with patients and colleagues.
6. Two letters of recommendation from individuals who can comment on academic, clinical, and professional experiences of the applicant.
7. A completed CSDCAS application.
8. An interview with faculty (invitation only).
9. During the on-campus interview day, write an essay given a clinical writing prompt (for interview candidates only).
10. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
11. Passage of the Midwestern University criminal background check.

Leveling Track

Individuals who completed a baccalaureate degree in an area other than Communication Sciences and Disorders and/or who do not meet the minimum requirements for the Traditional Track may apply for admission to the

College of Health Sciences Speech-Language Pathology Program Leveling Track. To select this track, individuals must designate this option during the application process and submit documentation of the following minimum requirements before the academic year commences for the incoming class:

1. Completion of a baccalaureate degree from a regionally-accredited institution in an area other than Communications Sciences and Disorders with completion of the following prerequisite coursework in each of the following areas: Statistics, Biological Sciences, Physical Sciences and Social Sciences.
2. Minimum undergraduate cumulative grade point average (GPA) of 3.0 on a 4.0 scale.
3. Oral and Written communication skills necessary to interact with patients and colleagues.
4. Two letters of recommendation from individuals who can comment on academic, clinical, and professional experiences of the applicant.
5. A completed CSDCAS application.
6. An interview with faculty (invitation only).
7. During the interview day, write an essay given a clinical writing prompt (for interview candidates only).
8. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
9. Passage of the Midwestern University criminal background check.
10. Although submission of scores on the general and writing sections of the Graduate Record Examination (GRE) are not required for admissions, students are encouraged to submit GRE scores using the Midwestern University Institution code of 4160.
 - For more information about the GRE, contact Educational Testing Services (ETS) at 866-473-4373 or visit www.ets.org/gre.

Application Process and Deadlines

To be considered for admission to the Speech-Language Pathology Program, applicants must submit the following to the Office of Admissions:

1. CSDCAS Application

Applicants are required to submit their applications to CSDCAS at <http://www.capcsd.org/csdcas> by March 1. Please refer to the CSDCAS application instructions for specific details about completing the application, required documents, and processing time. Due to the large number of applications and the limited number of seats available, applicants are encouraged to complete their CSDCAS application early in the cycle. An advantage of a centralized application service is that students can monitor the status of their applications online.

2. Letters of Recommendation

Applicants are required to submit a minimum of two letters of recommendation to CSDCAS (<http://www.capcsd.org/csdcas>). The Office of Admissions will accept only letters of recommendation received via CSDCAS. Letters should be contributed from professors, speech-language pathologists, or other professionals with whom the applicant has interacted. They should address academic, clinical and professional qualities that will contribute to the applicant's readiness for graduate study. Please refer to the CSDCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. Completed Applications

The Office of Admissions will send letters verifying receipt of completed CSDCAS applications to applicants who meet the minimum cumulative GPA requirement of 3.00. The letters will include instructions for checking the status of the required application materials online. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit complete application packages will be considered for potential entrance into the Program.

Please note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via e-mail, fax, or letter to:

Midwestern University
Office of Admissions
555 31st St.
Downers Grove, IL 60515
Fax: 630/971-6086
admissil@midwestern.edu

Interview and Selection Process

When applicants are considered eligible for interviews after review of their completed files, they will be notified of available interview dates and invited by the Office of Admissions to schedule an on-campus interview.

A typical interview day involves participation in the following activities coordinated by the Office of Admissions: an interview with two department faculty, lunch with current Midwestern University students, a campus tour, and consultations with counselors from the Office of Admissions and the Office of Financial Aid.

During interview sessions, department faculty will engage students in conversation regarding topics relevant to educational or healthcare settings. Students will also be asked to provide a writing sample in response to a clinical prompt. Interview and writing sample responses will be evaluated using rubrics established for this purpose. Prospective students' applications, interviews, and writing samples are evaluated using rubrics that were developed by the SLP Program. The Admissions Committee, which includes the Program Director, makes decisions for action with oversight from the Dean of the College of Health Sciences. The Dean, via the Office of Admissions, notifies applicants in writing of the admission action/decision.

The Dean of the College of Health Sciences may recommend for an interview, applicants who meet the Program's minimum requirements for which they are applying (e.g. children of alumni, faculty, or staff). These applicants are not guaranteed admission into a Program and will have their application reviewed similarly to other applicants being considered for acceptance. All admissions decisions are made by the program Admissions Committee.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch, hearing and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 pounds.

4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt, completion of all responsibilities, and the development of mature, sensitive, and effective relationships. Candidates must be able to tolerate physically, mentally, and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Reapplication Process

Students who receive denial or end-of-cycle letters may reapply for the following year's admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit a new application and proceed through the standard application process.

Evaluation of Student Performance

Students in the Speech-Language Pathology Program will be evaluated based upon academic and clinical performance at regular intervals during each quarter of study and throughout their program. Both formative and summative assessment techniques will be applied. Summative assessment will include traditional grades and written feedback for individual assignments, and final course grades at the end of a term or practicum experience. Formative assessment will include regular evaluation of student performance relative to learning objectives that reflect entry-level knowledge and skills as outlined by the American Speech-Language-Hearing Association. The use of both summative and formative assessment media across academic and clinical curricula will ensure student learning and preparation to enter the field of speech-language pathology.

Graduation Requirements

To qualify for the Master of Science in Speech-Language Pathology (M.S.), students must:

1. Satisfactorily complete all courses with a minimum cumulative grade point average of 3.0;
2. Satisfactorily complete the required minimum number of 107 credit hours in the curriculum;

3. Receive a favorable recommendation for master's degree conferral from the Speech-Language Pathology Academic Review Committee and the CHS Student Promotion and Graduation Committee;
4. Receive a favorable recommendation for master's degree conferral from the University Faculty Senate;
5. Settle all financial accounts with the University; and
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Licensure Requirements

Speech-language pathologists must hold a master's or doctoral degree to be eligible for certification, licensure, and practice as a speech-language pathologist. National certification is obtained through the Council for Clinical Certification (CFCC) of the American Speech-Language Hearing Association (ASHA), which establishes the standards for certification. The CFCC awards the Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP), a nationally recognized professional credential.

In addition to program coursework and practicum requirements, the standards for the CCC-SLP include passing the Praxis® Exam in Speech-Language Pathology and completing the equivalent of 36 weeks (full time) of professional experience (the "Clinical Fellowship") post graduation. The Praxis Exam is administered by the Educational Testing Service (ETS).

Speech-language pathologists must be licensed to practice in Illinois pursuant to the requirements of the Illinois Speech-Language Pathology and Audiology Practice Act (225 ILCS 110). Passing the Praxis® Exam is a requirement for licensure in most states, including Illinois.

The Illinois State Board of Education (ISBE) offers a professional educator's license for speech-language pathologists. This credential is necessary to work in Illinois public schools. The requirements of the program include a school-based practicum that will prepare students to meet the requirements for this additional credential.

Midwestern University Master's Degree in Speech-Language Pathology is designed to meet the educational requirements to become a licensed speech language pathologist in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment.

Midwestern University College of Health Science has not yet made the determination that its Master's Degree in Speech-Language Pathology Program curriculum meets the territorial educational requirements for licensure or certification in the following territories: Puerto Rico and U.S. Virgin Islands. Students in the program receive a direct notification that Midwestern University has not made a determination if their program meets the requirements in the above listed territories.

Curriculum

Degree Type

Master of Science in Speech-Language Pathology (M.S.)

The professional master's curriculum is composed of 54 to 57 required course credits (quarter hours) for the first academic year, 53 to 56 required course credits for the second academic year for a total of 107 to 113 quarter credits. Clinical practica are scheduled in the second, third, fourth, and fifth quarters of the curriculum. Advanced practica, or full-time placements in healthcare or educational settings, are secured for the last two quarters of the curriculum.

The Midwestern University College of Health Sciences Speech-Language Pathology Program reserves the right to alter its curriculum as appropriate for the essential professional preparation of its students.

Total Quarter Credits in the Professional Program: 107-113

The total number of quarter credits is dependent upon whether a student pursues the thesis or non-thesis track.

First Professional Year

Fall Quarter

Course Code	Title	Credits
CORED 1599I	Interprofessional Education I	1.0
SLPPD 0501	Neurological Bases of Communication Disorders	4.0
SLPPD 0502	Research Methods in Communication Sciences and Disorder	4.0
SLPPD 0519	Pediatric Speech Sound Disorders	4.0
SLPPD 0529	Voice and Resonance Disorders	4.0
SLPPD 0540	Clinical Methods in Speech-Language Pathology	3.0

Winter Quarter

Course Code	Title	Credits
SLPPD 0504	Cultural and Linguistic Diversity in Communication Disorder	3.0
SLPPD 0511	Thesis I	2.0
SLPPD 0521	Language Disorders in Early Childhood	4.0
SLPPD 0526	Aphasia	4.0
SLPPD 0550	Clinical Practicum I	3.0
SLPPD 0625	Hearing and Aural Rehabilitation	2.0

Spring Quarter

Course Code	Title	Credits
SLPPD 0503	Evidence-Based Practice in Communication Sciences and Disorders	3.0
SLPPD 0512	Thesis II	1.0
SLPPD 0522	Language Disorders in School-Age Children	4.0
SLPPD 0525	Dysphagia I	4.0
SLPPD 0527	Cognitive-Communication Disorders	4.0
SLPPD 0552	Clinical Practicum II	3.0

Second Professional Year

Summer Quarter

Course Code	Title	Credits
SLPPD 0613	Thesis III	1.0
SLPPD 0626	Autism and Other Developmental Disorders	2.0
SLPPD 0630	Fluency Disorders	3.0
SLPPD 0632	Dysphagia II	4.0
SLPPD 0640	Healthcare and Educational Settings	2.0
SLPPD 0654	Clinical Practicum III	3.0

Fall Quarter

Course Code	Title	Credits
SLPPD 0604	Professional Issues and Ethics in Speech-Language Pathology	2.0
SLPPD 0614	Thesis IV	1.0
SLPPD 0628	Motor Speech Disorders	3.0
SLPPD 0631	Augmentative and Alternative Communication	3.0
SLPPD 0633	Language, Literacy and Learning	4.0
SLPPD 0656	Clinical Practicum IV	3.0

Winter Quarter

Course Code	Title	Credits
	SIPPD 0660 or SLPPD 0662	12
SLPPD 0670	Thesis Continuation I	0.5

Spring Quarter

Course Code	Title	Credits
	SIPPD 0660 or SLPPD 0662	12
SLPPD 0671	Thesis Continuation II	0.5
	Total Credits	113

Faculty

Judith F. Ball, M.S., CCC-SLP
Illinois State University
Clinical Associate Professor

Audrey Bowlds, M.S., CCC-SLP
University of Kentucky
Clinical Assistant Professor

Miriam Carroll-Alfano, Ph.D., CCC-SLP
Western Michigan University
Associate Professor

Christina del Toro, Ph.D., CCC-SLP
University of Florida
Associate Professor

Meredith Fitzgibbons, Ph.D., CCC-SLP
Purdue University
Assistant Professor

Nicole Gilbert, M.A., CCC-SLP
Northern Illinois University
Director of Clinical Education and Clinical Assistant
Professor

Kimberly S. Hoffer, M.A., CCC-SLP
Northwestern University
Associate Professor

Cindy B. Krizizke, M.S., CCC-SLP
Purdue University
Clinical Assistant Professor

Kathleen Post, M.S., CCC-SLP
University of Wisconsin-Stevens Point
Clinic Coordinator and Associate Professor

Balaji Rangarathnam, Ph.D., CCC-SLP
University of Arkansas for Medical Sciences
Associate Professor

Jonathan P. Wilson, Ph.D., CCC-SLP
University of Florida
Program Director

Courses

CORED 1599I: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

SLPPD 0501: Neurological Bases of Communication Disorders

This course covers the neurological and physiological bases of normal and disordered communication. Embryological development of the central nervous system, and neuroanatomy and neurophysiology of the motor and sensory systems, including vision and audition are covered. Brain dissection laboratory experiences enhance mastery of neurological concepts introduced in the course. The course integrates basic neuroanatomy with cognitive neuroscience through assigned readings, lectures, and laboratory experiences.

Credits 4.0

Prerequisites

[SLPPD 0540](#) Clinical Methods in Speech-Language Pathology

SLPPD 0502: Research Methods in Communication Sciences and Disorder

This course introduces students to research methods, including basic research concepts, common research designs, and methods of data analysis commonly used in the field of speech-language pathology. Students will learn to critically read and evaluate research manuscripts.

Credits 4.0

SLPPD 0503: Evidence-Based Practice in Communication Sciences and Disorders

In this course, students will gain experience critiquing professional literature relevant to clinical and/or research practices. They will complete a literature review on a topic of interest and use it to inform evidence-based, clinical decisions.

Credits 3.0

SLPPD 0504: Cultural and Linguistic Diversity in Communication Disorder

This course will instruct the student on evidence-based practices for meeting the needs of culturally and linguistically diverse populations across the lifespan. The course will focus on developing cross-cultural competence through understanding cultural diversity, multilingual acquisition, multilingualism, effective use of interpreters and translators, and service delivery strategies.

Credits 3.0

SLPPD 0511: Thesis I

This course is required by all students electing the thesis track. It involves one hour of class attendance in which thesis students will work together to develop their research questions and methods, and one hour of independent study. Students will work with the Program Director to secure a Thesis Chair and two other faculty members to comprise their thesis committee. Students will meet with their Thesis Chair to devise an original research project, timeline, and budget. Completion of a literature review, rationale for research, and research plan is expected this term.

Credits 2.0

Prerequisites

[SLPPD 0502](#) Research Methods in Communication Sciences and Disorders; [SLPPD 0503](#) Evidence-Based Practice in Communication Sciences and Disorders

SLPPD 0512: Thesis II

This course is required of all students completing a master's thesis. It again involves one hour per week of class attendance in which students will review the technicalities of writing and formatting a professional manuscript. One hour of independent study with the Thesis Chair is also incorporated into this thesis experience. Completion of the first three chapters of a five chapter manuscript is expected, along with a timeline for collection of data.

Credits 1.0

Prerequisites

[SLPPD 0511](#) Thesis I

SLPPD 0519: Pediatric Speech Sound Disorders

This course covers speech disorders of developmental or linguistic origin. Students will learn to assess and treat articulation and phonological impairment. Highlights include practice collecting and analyzing comprehensive speech samples, administering standardized tests, and planning therapeutic interventions specific to individual cases.

Credits 4.0

SLPPD 0521: Language Disorders in Early Childhood

This course covers assessment and treatment of children with language disorders, focusing on the period from birth to age five. Language disorders experienced by children with cognitive challenge, hearing impairment, autism, other developmental disorders or traumatic brain injury will be addressed. The course will address special considerations for high-risk infants, emergent literacy, and how to work collaboratively with families to improve language and learning in the young child.

Credits 4.0

SLPPD 0522: Language Disorders in School-Age Children

This course explores language disorders of school-age children and adolescents. Students will study the social, cognitive and linguistic aspects of language impairment. The interplay of language and literacy and its implications for intervention in this age group will be examined. Students will practice conversational and narrative analysis. Other formal and informal assessment methods will be reviewed, along with intervention models commonly used in school and private settings.

Credits 4.0

Prerequisites

[SLPPD 0521](#) Language Disorders in Early Childhood

SLPPD 0525: Dysphagia I

This course reviews the anatomy and physiology of swallowing, and disorders that impact this vital function in children and adults. Etiologies of swallowing disorders, as well as their evaluation and management will be addressed. Students will appreciate the concomitant conditions that typically accompany dysphagia, and learn to prioritize treatment objectives. Ethical considerations in swallowing intervention will also be incorporated.

Credits 4.0

Prerequisites

[SLPPD 0501](#) Neurological Bases of Communication Disorders

SLPPD 0526: Aphasia

This course examines communication disorders that result from acquired conditions, such as left or right hemisphere strokes or other acquired brain pathologies. Etiologies of these conditions, including neurological correlates for presenting symptoms, will be reviewed. Assessment and intervention models will be discussed, with attention to the cognitive, linguistic, and social aspects of resulting communication disorders.

Credits 4.0

Prerequisites

[SLPPD 0501](#) Neurological Bases of Communication Disorders

SLPPD 0527: Cognitive-Communication Disorders

This course examines communication disorders that result from acquired conditions, with emphasis on traumatic brain injury, dementia, and other degenerative neurological conditions. Etiologies of these conditions, including neurological correlates for presenting symptoms will be reviewed. Assessment and intervention models will be discussed, with attention to the cognitive, linguistic, and social aspects of resulting communication disorders.

Credits 4.0

Prerequisites

SLPI 0501 Neurological Bases of Communication Disorders, SLPI 0526 Aphasia

SLPPD 0529: Voice and Resonance Disorders

This course teaches evaluative and therapeutic aspects of voice and resonance disorders. Students examine the anatomical and physiological correlates of phonation and oral/nasal resonance. Embryology of the vocal mechanism is reviewed, including nasal, oropharyngeal, laryngeal, and pulmonary regions. Assessment and intervention of a variety of common voice/resonance disorders will be covered, including laryngectomy, cleft lip/palate, vocal fold hyperfunction, and therapies associated with a variety of neurogenic communication disorders.

Credits 4.0

Prerequisites

[SLPPD 0501](#) Neurological Bases of Communication Disorders

SLPPD 0540: Clinical Methods in Speech-Language Pathology

This course reviews general procedures for assessing and treating individuals with communication disorders. Techniques for administering and interpreting formal and informal measures of communicative behavior and the basics of treatment procedures are discussed. The basics of clinical writing are covered, highlighting preparation of documents that support the assessment and treatment process. The course is supplemented by supervised observation and/or shadowing experiences in the Midwestern University Speech-Language Institute or off-site school or healthcare locations.

Credits 3.0

SLPPD 0550: Clinical Practicum I

This is the first of four supervised part-time speech-language pathology practicum experiences in the Midwestern University Multispecialty Clinic or other community-based sites. Students will learn how to plan and conduct assessment and intervention sessions for clients with communication disorders. One hour meetings will be included to review practicum experiences with other student clinicians to foster collaboration. Students will present clinical cases in grand rounds fashion. Essential functions for clinical performance will be covered, in addition to standards for ethical practice.

Credits 3.0

Prerequisites

[SLPPD 0540](#) Clinical Methods in Speech-Language Pathology

SLPPD 0552: Clinical Practicum II

This is the second of four supervised part-time speech-language pathology practicum experiences in the Midwestern University Multispecialty Clinic or other community-based sites. Students will learn how to plan and conduct assessment and intervention sessions for individuals with communication disorders. One hour meetings will be included to provide an opportunity for students to review practicum experiences with other student clinicians to foster collaboration. Students will present clinical cases in grand rounds fashion. Working independently and as a member of an inter-disciplinary team will be explored.

Credits 3.0

Prerequisites

[SLPPD 0550](#) Clinical Practicum I

SLPPD 0604: Professional Issues and Ethics in Speech-Language Pathology

This course focuses on the scope of practice for the speech-language pathology profession. Students will explore expectations for professional behavior based upon standards of practice and the ASHA Code of Ethics. Ethical dilemmas will be debated in preparation for a variety of clinical experiences. Procedures for obtaining the ASHA Certificate of Clinical Competence, state licensure, and school certification will be reviewed.

Credits 2.0

SLPPD 0613: Thesis III

This course is for all students on the thesis track. It involves one hour per week of independent study with the Thesis Chair. Completion of data collection and analysis is expected this term. Students should complete a draft of the final two chapters.

Credits 1.0

Prerequisites

[SLPPD 0512](#) Thesis II

SLPPD 0614: Thesis IV

This course is required of all students completing a master's thesis. It involves one hour per week of independent study with the Thesis Chair. Students should complete revision of their document and defend their thesis this term.

Credits 1.0

Prerequisites

[SLPPD 0613](#) Thesis III

SLPPD 0625: Hearing and Aural Rehabilitation

This course will teach basic methods for addressing the communication needs of individuals with hearing impairment and/or central auditory processing disorders. Students will learn how to read and interpret basic audiometric test results in order to recommend appropriate communication therapy. Communication modalities for individuals with hearing loss, and a variety of therapy methods to enhance language comprehension and production will be covered. Maintenance of amplification devices, collaboration with families and educators, and counseling for individuals with hearing loss will also be included.

Credits 2.0

SLPPD 0626: Autism and Other Developmental Disorders

This course will provide information on the prevalence, incidence, and classification of autism and social communication disorders across the lifespan; collaborative model of evidence-based practices; assessment and treatment approaches for communication and social skills, and cultural considerations.

Credits 2.0

Prerequisites

[SLPPD 0521](#) Language Disorders in Early Childhood; [SLPPD 0522](#) Language Disorders in School-Age Children

SLPPD 0628: Motor Speech Disorders

This course covers assessment and treatment of neurogenic speech disorders, including the various types of dysarthria and apraxia. The complex process of differential diagnosis of these conditions will be addressed, along with numerous treatment approaches designed to target respiration, phonation, articulation, resonance and prosodic components of motor speech disorders.

Credits 3.0

Prerequisites

[SLPPD 0501](#) Neurological Bases of Communication Disorders; [SLPPD 0519](#) Pediatric Speech Sound Disorders; [SLPPD 0529](#) Voice and Resonance Disorders

SLPPD 0630: Fluency Disorders

This course describes the nature and proposed etiologies of stuttering and associated disorders. Assessment and treatment of children and adults with fluency disorders will be addressed, including the need for counseling and ongoing management across the lifespan.

Credits 3.0

SLPPD 0631: Augmentative and Alternative Communication

This course will address the complex communication needs of individuals with severe communication, sensory and/or physical impairments which may necessitate the use of augmentative and alternative communication systems (AAC). Students will become familiar with various types of assistive technologies used for AAC. The course will cover cognitive, educational, physical, psychosocial, and linguistic aspects of human behavior that impact AAC selection and implementation. AAC assessment and intervention strategies will be addressed, including interdisciplinary contributions from physical and occupational therapists.

Credits 3.0

SLPPD 0632: Dysphagia II

This course will require students to apply knowledge to clinical cases. Students will be expected to generate diagnostic reports and treatment plans targeting pediatric and adult dysphagia. Interpretation of videofluoroscopic and endoscopic swallowing assessments will assist students in profiling phase-specific sensory and motor swallowing abnormalities. Complex cases will be addressed.

Credits 4.0

Prerequisites

[SLPPD 0525](#) Dysphagia I

SLPPD 0633: Language, Literacy and Learning

This course provides students with the theoretical models of language, literacy and learning. Examination of the interconnections between reading, writing, speaking and listening will be explored. The patterns of child and adolescent reading and writing are emphasized.

Credits 4.0

SLPPD 0640: Healthcare and Educational Settings

This course focuses on speech-language pathology practice within healthcare and educational settings, to better prepare students to work in these environments. Topics covered will include terminology, legislation and regulations, oversight and responsibilities, interprofessionalism, and documentation required for effective practice.

Credits 2.0

SLPPD 0654: Clinical Practicum III

This is the third of four supervised part-time speech-language pathology practicum experiences in the Midwestern University Multispecialty Clinic or other community-based sites. Students will learn how to plan and conduct assessment and intervention sessions for clients with communication disorders. One hour meetings will be included to provide an opportunity for students to review practicum experiences with other student clinicians to foster collaboration. Students will present clinical cases in grand rounds fashion. Addressing the needs of complex cases will be explored.

Credits 3.0

Prerequisites

[SLPPD 0552](#) Clinical Practicum II

SLPPD 0656: Clinical Practicum IV

This is the last of four supervised part-time speech-language pathology practicum experiences at the Midwestern University Clinic or other community-based sites. Students will learn how to plan and conduct assessment and intervention sessions for clients with communication disorders. One hour meetings will be included to provide an opportunity for students to review practicum experiences with other student clinicians to foster collaboration. Students will present clinical cases in grand rounds fashion. Continuing to learn how to address the needs of complex cases will be explored.

Credits 3.0

Prerequisites

[SLPPD 0654](#) Clinical Practicum III

SLPPD 0660: Advanced Practicum in Speech-Language Pathology: Public School

This is a supervised clinical experience in speech-language pathology in a public school setting. Students will acquire experience in individual and group therapy, assessment and consultation. This course consists of a 12 week, full-time school site placement. May be taken before or after SLPPD 0662 Advanced Practicum in Speech-Language Pathology: Medical/Healthcare Facility.

Credits 12.0

Prerequisites

[SLPPD 0656](#) Clinical Practicum IV; Satisfactory completion of formative and summative reports in all didactic coursework.

SLPPD 0662: Advanced Practicum in Speech-Language Pathology: Medical/Healthcare Facility

This is a supervised clinical experience in speech-language pathology in a healthcare setting. Students will acquire experience in individual and group therapy, assessment, consultation and interdisciplinary staffing. It consists of a 12 week, full-time clinical site placement.

Credits 12.0

Prerequisites

[SLPPD 0656](#) Clinical Practicum IV; Satisfactory completion of formative and summative reports in all didactic coursework.

SLPPD 0670: Thesis Continuation I

This course is reserved for SLP students needing additional time to complete and successfully defend their thesis project. Enrollment is necessary only when students have completed all other required coursework and are enrolled in Advanced Practicum courses. This is considered an extension of the thesis and must be approved by the Program Director.

Credits 0.5

Prerequisites

[SLPPD 0614](#) Thesis IV

SLPPD 0671: Thesis Continuation II

This course is reserved for SLP students needing additional time to complete and successfully defend their thesis project. Enrollment is necessary only when students have completed all other coursework and are enrolled in Advanced Practica courses. This is considered an extension of the thesis and must be approved by the Program Director.

Credits 0.5

Prerequisites

[SLPPD 0614](#) Thesis IV; [SLPPD 0670](#) Thesis Continuation I

SLPPD 0800: Independent Study

This course is designed to facilitate scholarly inquiry into a topic related to a specific component of speech-language pathology theory and practice. Course content, assignments and learning outcomes are developed in collaboration with the faculty mentor and the student, and the Program Director must approve the plan. Course credit is variable depending on the scope of work to be accomplished.

Credits 1.0-3

Prerequisites

Permission of the Instructor

College of Graduate Studies

Mission

Midwestern University's College of Graduate Studies pursues the advancement of knowledge in the academic triad of teaching, research, and service in order to improve the health of humans, animals, and the environment while emphasizing One Health principles.

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the college. In the event that these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.

Academic Monitoring

All students enrolled in CGS are expected to:

1. Maintain satisfactory academic progress in their course of study.
2. Understand and meet all established Program/College academic and professional requirements and standards as described in course syllabi, program-related manuals, University Catalog, and Student Handbook.
3. Self-monitor their academic performance in all required courses.
4. Complete all course-related requirements in a timely and satisfactory manner.
5. Seek assistance if encountering academic difficulty.
6. Contact their Program Director and/or course coordinator/director when performance has been unsatisfactory.
7. Check University e-mail account and course management site (e.g., Canvas) daily for information. This is particularly important at the end of the quarter and during quarter breaks when information concerning academic performance may be distributed.

Academic Review and Progression

The academic progress of each student enrolled in the College is regularly monitored to determine whether the student is making satisfactory academic progress in their program of study based on criteria established by the program/College. The academic review process occurs at two levels: the Student Promotion and Graduation Committee, and the CGS Dean.

CGS Student Promotion and Graduation Committee

The University Faculty Senate appoints this committee annually as one committee across campuses. The minimum membership consists of two faculty members from each CGS Program (AZ Biomedical Sciences, IL Biomedical Sciences, Master of Public Health, Precision Medicine) with representation from each campus, and at least one basic science faculty member from each campus. The Dean of CGS (or designee), the Dean of Students (or designee), and the Registrar (or designee) are Ex Officio nonvoting members. Each campus has a subcommittee of at least five members from that campus. The CGS Dean appoints a co-chair (program director

or faculty member) from each campus. The committee will review and act on the academic progress of students enrolled in a cross-campus program, and the subcommittee will review and act on the academic progress of students enrolled in a campus-specific program. The committee or subcommittee may request that a course director and/or faculty advisor attend the meeting to provide additional information about the student's case. When the academic status of a dual-degree student is under review, a representative from the respective primary healthcare professional degree program may be invited as a nonvoting member.

At the end of each quarter and more often if necessary, this committee or subcommittee reviews and acts upon the academic progress of each student enrolled in the College as well as other factors such as professionalism. If satisfactory, the committee or subcommittee recommends progression of the student to the next quarter. If unsatisfactory, the committee or subcommittee decides whether a student is placed on academic warning, academic probation, extended program, academic leave of absence, or is dismissed. These decisions are forwarded to the student and the Dean of CGS. Following notification, a student may appeal the Committee's decision to the Dean who will make a final determination but may, at their discretion, also form an ad hoc committee to review the appeal. The CGS Dean is responsible for reviewing all decisions for consistency with stated College academic policies and practices. The Dean makes the final decision on the appeals and action to be taken.

At the end of each academic year, the CGS Student Promotion and Graduation Committee or subcommittee reviews the academic and professional progress and performance of each student. For dual degree students, input from the primary healthcare professional degree program representative will be considered in determining actions, and academic progress in the primary healthcare professional degree program takes precedence over the secondary CGS degree program. If satisfactory, the committee or subcommittee recommends promotion of the student. In addition, the committee or subcommittee meets each spring, or as needed, to recommend for graduation all students who have satisfactorily completed all degree requirements specified by their program. The committee's or subcommittee's recommendations are forwarded to the CGS Dean and the University Faculty Senate for approval. The co-chairs of the committee are responsible for submitting minutes of each meeting to the CGS Dean.

Satisfactory Academic Progress

To achieve satisfactory academic progress, a student enrolled in a CGS program must pass all required courses and maintain or exceed the following minimum cumulative grade point average (GPA) as established for each CGS program:

- Master of Arts in Biomedical Sciences: 2.75 GPA
- Master of Biomedical Sciences: 2.75 GPA
- Master of Public Health: 2.5 GPA
- Master of Science in Precision Medicine: 2.5 GPA
- Post-Graduate Certificate in Precision Medicine: 2.5 GPA

Academic Progress

Outcome	Usual Action ¹	Transcript Notation
No course failures; and maintain minimal cumulative GPA ²	Allowed to progress to the next quarter	---
No course failures; and one quarter of cumulative GPA less than minimum allowed ²	Academic warning for the subsequent quarter of enrollment	Academic warning is not noted on the transcript.

Outcome	Usual Action ¹	Transcript Notation
One course failure; and/ or two quarters of cumulative GPA less than minimum allowed ²	<p>Academic probation for the subsequent quarter or until all academic requirements are met. In addition, one or more of the following may apply:</p> <p>a) Retake of the failed course if eligible and/or if the course is required</p> <p>b) Academic leave of absence for up to one year until course is retaken or any requirements for re-entry established by the program have been met</p> <p>c) Extended program</p> <p><i>Note:</i> Students on an extended program may be subject to academic LOA or dismissal after additional course failures or failure to maintain the required cumulative GPA.</p>	"F" grade is listed on transcript and is counted toward GPA calculation and total number of accumulated failures. Following successful retake of the course, the original "F" remains on the transcript as an "F" but is no longer factored into the GPA.
Three or more quarters of cumulative GPA less than minimum allowed ²	<p>a) Academic probation for the subsequent quarter or until all academic requirements are met, or</p> <p>b) Academic leave of absence³ and academic probation, or</p> <p>c) Extended program and academic probation, or</p> <p>d) Dismissal</p>	Academic probation and extended program are not noted on transcript. Academic leave of absence and dismissal are noted on transcript.
Two or more course failures	<p>a) Academic leave of absence³ and academic probation, or</p> <p>b) Extended program and academic probation, or</p> <p>c) Dismissal</p> <p><i>Note:</i> Two or more course failures will typically result in dismissal.</p>	Academic probation and extended program are not noted on transcript. Academic leave of absence and dismissal are noted on transcript.

¹The CGS Student Promotion and Graduation Committee may decide from any of the options listed among the usual actions described for each academic situation under review.

²Minimum cumulative GPA for Master of Arts in Biomedical Sciences is 2.75; Minimum cumulative GPA for Master of Biomedical Sciences is 2.75; Minimum cumulative GPA for Master of Public Health is 2.50; Minimum cumulative GPA for Master of Science in Precision Medicine is 2.50; Minimum cumulative GPA for Post-Graduate Certificate in Precision Medicine is 2.50.

³May or may not be preceded by academic warning or probation.

Unsatisfactory Academic Progress

If a student fails to make satisfactory progress in completing the prescribed course of study, the student is placed on academic warning, academic probation, extended program, academic leave of absence, or is dismissed. The CGS Student Promotion and Graduation Committee may recommend any of the options listed among the usual actions described for each academic situation under review.

Additionally, for CGS dual degree students, academic progress in their primary healthcare professional degree program takes precedence over the secondary degree program. Dual degree students not sustaining sufficient academic progress in their primary degree program may be placed on an academic leave of absence from the secondary CGS degree program until academic deficiencies in the primary degree program are corrected, and the student returns to good academic standing, as defined by the primary degree program. The Student Promotion and Graduation Committee for the primary degree program communicates student academic status updates to the CGS Student Promotion and Graduation Committee.

Students will be notified by the CGS Dean when they are placed on academic warning as a result of their failure to achieve the required minimum cumulative GPA established by their program. Any student with academic deficiencies to be addressed by the CGS Student Promotion and Graduation Committee shall be notified in writing by campus e-mail by the Chair of the CGS Student Promotion and Graduation Committee at least two business days in advance of the scheduled meeting in which the student's case will be heard. The student may request and shall be permitted to appear before the CGS Student Promotion and Graduation Committee (in person or virtually) to present their case in matters that could result in academic probation, academic leave of absence, dismissal or any matter that could result in a permanent annotation on the student's transcript. In such instances, the student shall inform the Chair or Co-Chair of the CGS Student Promotion and Graduation Committee in writing, of their desire to appear before the committee or intent to waive this right. If the student chooses to appear before the committee, this prerogative extends to only the involved student and not to any other individuals. A student whose academic progress will be subject to review by the CGS Student Promotion and Graduation Committee and who wishes to appeal a course grade must do so in an expedited manner prior to the scheduled meeting of the Committee. Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Grade Appeals Policy.

Within two working days following the committee meeting, the chair of the CGS Student Promotion and Graduation Committee is responsible for providing notification via campus email, informing the involved student, of the committee's decision. In all instances, the chair of the CGS Student Promotion and Graduation Committee shall be responsible for informing the CGS Dean of each decision made by the committee. Following notification of the decision by the CGS Student Promotion and Graduation Committee, a student may appeal the decision to the CGS Dean (see Appeal Process). The Dean is responsible for reviewing all decisions for consistency with stated College academic policies and practices. The Chair of the CGS Student Promotion and Graduation Committee is responsible for providing written notification of the decision to all appropriate academic support offices (e.g., Registrar, Student Financial Services, etc.).

Academic Warning

Academic warning is a formal notification of substandard academic performance and cautions the student that continued performance at this level might result in academic probation or other academic disciplinary action. An academic warning is issued when a student earns a cumulative GPA below the minimum required by the student's respective program for one quarter and/or when the student fails to meet any other established program academic requirements. An academic warning is in effect for the subsequent quarter of enrollment. Academic warning is not noted on the student's transcript but is noted in the student's academic file that is kept in the Program office. If the student achieves the minimum standard of academic performance required by the program during the quarter of academic warning, the student is returned to good academic standing. This is also noted in the student's file.

Academic Probation

Academic probation represents notice of unsatisfactory academic progress. Academic probation typically occurs when the student fails a class during their academic program and/or earns a cumulative GPA below the minimum required by the student's respective program for two quarters (which do not have to be consecutive) and/or when the student fails to meet any other established program academic requirements. Academic probation is not

noted on the student's transcript but is noted in the student's academic file in the Program office. The student remains on academic probation until the failure is successfully repeated and/or the cumulative GPA is at or above the program's required minimum and all deficiencies have been corrected. Subsequently, when the student is returned to good academic standing, this is also noted in the student's file.

Extended Program

When a student is not allowed to progress in the standard program curriculum due to course failure; failure to maintain the required cumulative GPA for two or more quarters; failure to meet any other established program academic requirement; or upon request due to extenuating personal circumstances, the CGS Student Promotion and Graduation Committee may place the student on an extended program. While on an extended program, students may be permitted to take courses and/or to retake courses in which they have received a grade of "C" or less, as approved by their CGS program. Students will be able to resume the standard program curriculum upon successful completion of all programmatic requirements. Extended program is not noted on the student's transcript. Leave of absence will be noted on the transcript for periods of non-enrollment during the extended program period for stand-alone degree students. No notation will be made on transcripts of a dual degree student who is concurrently taking coursework in their primary healthcare professional degree program.

Academic Leave of Absence

Academic leave of absence may occur when a student has failed one or more courses, has accumulated two or more quarters with a cumulative GPA less than required by the student's program, or has not met programmatic criteria required to proceed in the curriculum. Academic leave of absence may or may not be preceded by academic probation. This action results in the suspension of the student from all academic courses for a period of up to one year, or until all program requirements for re-entry have been fully met. A mandatory academic leave of absence is noted on the student's transcript.

The student who has been placed on a mandatory academic leave of absence does not have to re-apply for admission and is guaranteed reentry into their academic program upon successful completion of all failed required courses and/or when all programmatic requirements are met. Upon reentry to the academic program, the student is routinely placed on academic probation for the following quarter.

Academic Dismissal

A student may be dismissed from the College for academic reasons upon the decision of the CGS Student Promotion and Graduation Committee. The dismissal is based on the determination that the student has not satisfactorily demonstrated that the student can successfully achieve the standards and requirements set forth in the academic policies and professional expectations for the program (see "Professional Conduct").

Students who accumulate two or more failures or three quarters below the minimum required grade point average may be dismissed. The course failures and/or the three-quarters with less than the required minimum cumulative GPA do not have to be consecutive.

Retake of a Failed Course

If a student passes a repeated course, the original failure remains on the transcript as an "F" grade and is included in the total number of accumulated failures in the student's academic record. The grade from the original failed course is no longer used in the computation of the GPA following repeat of the course. The grade from the repeated course will be factored into the overall GPA.

Students may retake a Midwestern University course in which they have earned a "C" if the student's GPA is below the Program's minimum requirement. The Program Director and the CGS Dean must approve this retake option. Typically, a maximum of three courses with "C" grades can be retaken, and a course may only be retaken once. The original "C" grade will remain on the transcript but will not be used in the computation of the GPA following

the completion of the repeated course. The new grade will be factored into the overall GPA. All repeated courses are subject to additional tuition. Students should consult with their financial aid advisor regarding the financial implications of repeated coursework.

With program approval, the CGS may allow students to take equivalent courses at an accredited university as a replacement for a failed course or for the purpose of raising their cumulative GPA to the Program minimum. In order to qualify as replacement credits, such courses must be at the graduate level and must be approved by the CGS Program Education Committee and Program Director before the grades can be accepted for transfer. These courses and assigned grades will be recorded on the transcript along with the equivalent Midwestern University courses and assigned grades. The original "C" and "F" grades will remain on the transcript but only the new grades will be factored into the overall GPA.

Readmission After Dismissal for Poor Academic Performance

It is at the discretion of the Program to readmit a student who has been dismissed for poor academic performance. To initiate the reapplication process, candidates must complete and submit a new application and proceed through the standard application process established by the program. Before reapplying, however, individuals should seek the advice of an admissions counselor. It is expected that the individual would have addressed documented deficiencies before reapplication and be able to demonstrate that they meet all admission requirements and technical standards of the program.

The program's Admissions Committee will review completed applications of candidates and submit recommendations to the Program Director for action. The CGS Dean, via the Office of Admissions, then notifies applicants in writing of readmission decisions. No guarantee of readmission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Readmission will be granted only once.

Advanced Placement/Exemption from Coursework

The CGS Program may allow for the transfer of credits from graduate-level coursework completed at other institutions prior to matriculation at Midwestern University. The Program decides upon all requests for advanced placement by newly admitted students on a course-by-course basis. To request such consideration, a student must submit a letter of request to the Program Director in which the student lists the course previously taken which might be similar in content to the Midwestern University course that the student is required to take. The student must also provide an official description and syllabus of the course previously taken. The Program Director will share the submitted course materials with the appropriate Course Director to determine if the course is an appropriate substitute. All requests must be submitted prior to matriculation. Typically, advanced placement will only be considered for coursework in which a minimum letter grade of "B" has been earned. A "C" letter grade is not acceptable for advanced placement consideration. If the Program denies the request for advanced placement, the student may appeal this decision to the CGS Dean.

If a course is accepted for credit, the equivalent Midwestern University course and the Advanced Placement (AP) notation will be recorded on the transcript along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on the transcript or used in the GPA calculation. Further details may be found in the individual CGS program catalogs.

Coursework Completed in Midwestern University Professional Programs

For CGS dual degree students enrolled in a Midwestern University healthcare professional degree program, coursework completed in the healthcare professional degree program may be applied towards the CGS degree. Further details may be found in the individual CGS program catalogs.

Appeal Process

Following notification of a decision from the CGS Student Promotion and Graduation Committee, a student may appeal. The student has three working days to submit a formal written appeal of the Committee's decision to the Dean. The appeal must be submitted in writing to the Office of the Dean within this three-day period. A narrative explaining the basis for the appeal should accompany the request. An appeal must be based on one of the following documented premises:

1. Bias of one or more members of the CGS Student Promotion and Graduation Committee *Note: The student must present specific evidence that the committee member(s) demonstrated bias against the student in conducting the academic review process*
2. Material, documentable information not available to the committee at the time of its initial decision. *Note: The student must provide a detailed explanation of why the new information is relevant and why it was not made available to the committee members during the academic review process. The student should be prepared to produce pertinent documentation at the appeal meeting.*
3. Procedural error. *Note: The student must provide evidence that the committee did not correctly follow the procedures related to the conduct of the academic review process; for example, the student was not given notice of the meeting or committee decision in accordance with stated policies.*

Upon receipt of the student's appeal, the Dean will consider the appeal and may, at their discretion, form an ad hoc appeal committee. In all cases, the Dean must make a decision, typically within ten working days, and then notify the student, the Chair of the CGS Student Promotion and Graduation Committee, and all appropriate support offices via campus email. The decision of the Dean is final.

Students must attend all courses in which they are registered until the appeal process is complete. Students who fail a required or prerequisite course should consult with the Program Director regarding attendance in courses in the subsequent quarter.

Auditing a Course for Remedial Purposes

The CGS Student Promotion and Graduation Committee may determine that a student should be enrolled to audit a previously taken course. Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Course Auditing Policy.

Faculty Advisor Program

The CGS Program assigns a faculty advisor to students in each entering cohort. The responsibilities of the faculty advisor are as described below. In addition to these faculty advisors, the Program Director, the CGS Dean's Office and the Dean of Students are also available to assist students. It is the student's responsibility to initiate contact with the faculty advisor for assistance.

The responsibilities of CGS faculty advisors include:

1. Serving as the student's advisor and academic/professional counselor;
2. Overseeing and monitoring the academic progress and professional growth of the student;
3. Referring the student to academic and personal counseling services provided by the institution;
4. Serving as an advocate for the student;
5. Providing career counseling to the student.

Grades

Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows:

Grade	Percent (%)	Quality Points (per credit)	Comments
A	93-100	4.000	-
A-	90-92	3.670	-
B+	87-89	3.330	-
B	83-86	3.000	-
B-	80-82	2.670	-
C+	77-79	2.330	-
C	70-76	2.000	-
F	< 70	0.000	-
I	-	0.000	An Incomplete grade may be assigned by an instructor when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades will be resolved within 10 calendar days from the end of the final examinations for the quarter or they will automatically be converted to a grade of "F". In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with a notice to the Registrar.
IP	-	0.000	An In-Progress grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.
P	-	0.000	Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of "P" is counted toward credit hour accruals for graduation but does not affect GPA calculations.
F	-	0.000	Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of "F" is counted toward credit hour accruals as attempted but not completed. Grade of "F" is calculated into the GPA (quality points are lowered due to unsuccessful course completion).
W	-	0.000	Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
WF	-	0.000	Withdrawal Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the program. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.
AU	-	0.000	This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter.
AP	-	-	This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement is applied toward credit hour accruals, but is not counted in the GPA calculation.

Grade Point Average

The grade point average (GPA) is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course. The student's cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated initially at the end of the first quarter of enrollment and does not include

any grades or credits for courses audited or accepted for advanced placement or for courses with a grade of withdrawal (W), withdrawal failing (WF), or pass (P). Additionally, failing (F) grades for courses that are successfully repeated are not included in the GPA. Under exceptional circumstances and with the approval of the Program Director and Dean, students may retake a course in which they received a grade of "C". In such cases, the original grades remain on the transcript but only the new grades are used in the computation of the GPA.

Criminal Background Checks

CGS performs criminal background checks as described in the Midwestern University policies.

Graduation

The following degrees and certificate will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements: Master of Biomedical Sciences (M.B.S.), Master of Arts in Biomedical Sciences (M.A.), Master of Public Health (M.P.H.), Master of Science in Precision Medicine (M.S.), and Post-Graduate Certificate in Precision Medicine (PGCert).

Immunization Policy

Students enrolled in a program without a clinical component are required to follow the immunization policy, as outlined in the Student Handbook, but are not required to have titers.

Leave of Absence

Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Leave of Absence Policy. Before voluntarily requesting a leave for personal reasons or after being placed on a mandatory leave for academic reasons, a student must make an appointment with the appropriate Program Director or designee and representative from the Dean's Office to discuss the implications of the leave of absence and a revised program of study, if applicable. Typically, a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. Periods of non-enrollment do not count towards the allotted time for completion of academic programs.

Professional Conduct

Students are expected to emulate the legal, moral, and ethical standards expected of professionals and display behavior that is consistent with these qualities. A Code of Responsibilities and Rights of the Students of Midwestern University is included in Appendix 1 of the MWU Student Handbook. This code clearly states the mode of behavior that is expected of students and covers both on-campus and off-campus activities. Students are expected to read and follow this code.

Unsatisfactory professional behavior, as defined in Appendices 2 and 4 of the MWU Student Handbook, is subject to disciplinary sanctions that may preclude a student's academic progress in their program of study. The Dean of Students investigates formal complaints concerning student misconduct and recommends disciplinary action to the CGS Dean. A student who is found to have engaged in improper conduct is subject to disciplinary action which includes, but is not limited to, disciplinary warning/probation, suspension, or dismissal. Disciplinary warning and probation are not noted on the transcript but are kept in the student's disciplinary file. Suspension and dismissal as a result of disciplinary action are noted on the student's transcript. Disciplinary information may be shared with sites that are affiliated with Midwestern University educational programs.

Master of Biomedical Sciences Program

Mission

The Midwestern University Master of Biomedical Sciences Program provides students with an in-depth education in the biomedical sciences, offers significant experience in laboratory research, and graduates students who are competitive applicants for admission into professional programs in healthcare or a career in research.

Degree Description

The Master of Biomedical Sciences Program is a full-time, graduate-level program that provides the student with laboratory experiences, research skills, and a broad background in the biomedical sciences. Successful completion of the Program leads to a Master of Biomedical Sciences degree (MBS). The Program has two main purposes. First, the Program is designed to help students with undergraduate degrees improve their academic foundation in the biomedical sciences, thereby strengthening their application to health professions programs. Students demonstrate their ability to perform at a graduate level, improve their GPA, better prepare for the professional entrance exam and take courses that broaden their undergraduate coursework. Second, it provides a significant experience in performing basic and translational laboratory research. This affords graduates with technical skills and expertise to function in a variety of biomedical professions. These include careers in areas such as technicians and supervisors in the biotechnology and pharmaceutical industry, research personnel in biomedical science laboratories, employees in governmental and regulatory agencies, and undergraduate teaching.

The 72 quarter-hour curriculum is usually completed in 21 months. The required curriculum includes seven basic science courses in biochemistry, genetics, immunology, microbiology, and physiology. In addition to the basic science courses, the student must take a series of research courses that prepare the student for a research project and thesis that is the culmination of the degree program. The research courses include Research Design and Methodology, Principles of Biostatistics, Literature Review, Journal Club, Seminars in Biomedical Sciences, Fundamentals of Research, Ethics of Research and Experimentation, Thesis Proposal, Laboratory Research, and Thesis. Each MBS student is required to conduct research, write a thesis and then orally defend that research work for approval by a thesis committee prior to graduation. A series of electives are available to complete the 72 quarter-hour requirement. The electives allow the student to further specify an area of interest to better prepare them for a career in their chosen field. Students who need more than 21 months to complete the Program will be required to enroll in a thesis continuation course. Students must complete the Program within four years of matriculation, excepting approved leaves of absence.

Admissions

Admission Requirements

To be considered for admission to the Master of Biomedical Sciences Program, an applicant must have:

1. A bachelor's degree or higher from a regionally accredited college or university.
2. A minimum cumulative GPA of 2.75 on a 4.00 scale.
3. One letter of recommendation from a prehealth advisor or committee, science professor, or health professional.
4. Copies of transcripts from each college or university attended. Official transcripts must be submitted prior to matriculation.
5. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
6. Passage of the Midwestern University criminal background check.

Test scores from one the following are optional: MCAT, PCAT, DAT, OAT, GRE.

Application Process and Deadlines

To be considered for admission into the Master of Biomedical Sciences Program, applicants must submit their application:

Apply through the Post Baccalaureate Centralized Application Service (PostBacCAS; <https://postbaccas.liasoncas.com/applicant-ux/#/login>). PostBacCAS allows students to learn about, compare, and apply to a number of post baccalaureate programs through one centralized application.

Requirements for application include:

1. One letter of recommendation.
2. Copies of transcripts from each college or university attended. Official transcripts must be submitted prior to matriculation from every undergraduate, graduate, or professional school that they have attended or are currently attending.
3. The deadline for submitting a completed application is July 15. Applications received after July 15 may not be reviewed.

Send application materials to:

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
800/458-6253
admissil@midwestern.edu

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address. All requests for applications withdrawal must be made in writing.

Selection Process

The Master of Biomedical Sciences Program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Master of Biomedical Sciences Program begins in the Fall Quarter. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee feels would benefit the most from the Program. Selection decisions for the Program are made by the Biomedical Sciences Program Admissions Committee with the approval of the Program Director and the Dean of the College of Graduate Studies until the class is filled. To maximize their competitiveness within the rolling admission process, candidates are advised to submit their completed applications early in the admission cycle.

After receiving completed application packets, the information provided is verified, including the cumulative GPAs for applicants for all completed courses. Completed applications are forwarded to the Biomedical Sciences Program Admissions Committee. Applicants will receive notification in writing of admissions decisions.

Please Note: Applicants may track the receipt of their application materials and the status of their files on the University's website. Instructions for accessing account information will be sent to the applicant by the Office of Admissions after receipt of the application. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address or e-mail address.

Articulation Agreements

Biomedical Sciences students may also qualify for specialized articulation agreements with other Midwestern University programs. Please contact the Office of Admissions for specific information and deadlines regarding articulation agreements that are in place for the professional program(s) in which you might be interested.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Dual Degree Options

The Biomedical Sciences Program offers an educational opportunity to current MBS students applying to other colleges at Northwestern University. The following policies apply:

1. Current MBS students must apply and be accepted into a clinical program on the Downers Grove campus.
2. The clinical degree program will be considered the primary degree program and the Biomedical Sciences Program the secondary degree program. Continuity of the primary degree program must be maintained.
3. The length of the secondary program will be extended for a time period sufficient to complete the secondary degree program. This may take up to a year depending upon the primary program. Programs may be individualized to accommodate availability of desired courses, academic proficiency, and student preferences. As a secondary degree program, the Biomedical Sciences Program degree must be completed within a total of five years from initial matriculation.
4. Students must maintain the minimum cumulative GPA requirements of each program. Failure to maintain the minimum cumulative GPA in either program will result in an academic action.
5. The number of credits required for completion of the Biomedical Sciences Program is 72 quarter hours. Some courses from dual degree students' clinical degree program may be deemed suitable for credit in the Biomedical Sciences Program degree program. If approved, these courses may be substituted for credit in the Biomedical Sciences. No Biomedical Sciences Program tuition will be charged for these credits.
6. In addition to the established quarterly tuition for the primary degree program, students enrolled in the dual degree program shall pay tuition to the Master of Biomedical Sciences program on a per credit basis. Dual degree students shall receive a 30% discount on the usual Master of Biomedical Sciences Program per credit hour charge for the full duration of their Master of Biomedical Sciences degree program. Master of Biomedical Sciences Program tuition is payable quarterly and determined by the number of credits for which the student is registered.

Transfer Course Credit

Students may request the transfer of graduate coursework taken at another accredited university to this degree program. However, no more than 9 quarter credit hours can be accepted as transfer credit. Policies for course transfers can be found in the Northwestern University College of Graduate Studies Catalog section titled Advanced Placement/Exemption from Coursework.

Transferring Between Programs

Students interested in transferring between Biomedical Sciences Programs should consult the Program Director.

Transferring From a Program Outside of Northwestern University

The Master of Biomedical Sciences degree program does not accept transfer students from a Master's Program outside of Northwestern University. Students would need to apply for admission to the Master of Biomedical Sciences degree program.

Graduation Requirements

To qualify for the Master of Biomedical Sciences (MBS) degree, students must:

1. Follow an approved course of study acceptable to the Student Promotion and Graduation Committee;
2. Complete a master's thesis project approved by the student's thesis committee;
3. Satisfactorily complete the required minimum 72 quarter hours of master's level courses with a 2.75 or higher cumulative grade point average;
4. Pass all required courses;

5. Receive a favorable recommendation from the Student Promotion and Graduation Committee;
6. Be recommended for conferral of the master's degree by the University Faculty Senate;
7. Settle all financial accounts with the University; and
8. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Curriculum (Effective Fall 2023)

Degree Type

Master of Biomedical Sciences (M.B.S.)

For students entering the Master of Biomedical Sciences Program in or after Fall 2023.

Total Credit Hours Required: 72

The Program reserves the right to alter the curriculum as it deems appropriate.

First Year

Fall Quarter

Course Code	Title	Credits
BIOCD 0561	CGS Biochemistry I	3.5
BISCD 0550	Professional Development	1.0
BISCD 0552	Fundamentals of Research	3.0
BISCD 0556	Research Design and Methodology	3.0
PHYSD 0550	Human Physiology I	3.5

Winter Quarter

Course Code	Title	Credits
BIOCD 0571	CGS Biochemistry II	2.5
BISCD 0557	Principles of Biostatistics	3.0
MICRD 0599	Molecular Immunology	3.0
PHYSD 0551	Human Physiology II	3.5
	Electives (0-2 credits)	0-2

Spring Quarter

Course Code	Title	Credits
BIOCD 0580	Human Genetics	1.0
BISCD 0560	Laboratory Research for Thesis	1.0-6
BISCD 0570	Ethics of Research and Experimentation	2.0
BISCD 0581	Journal Club	2.0
MICRD 0583	Medical Microbiology with Lab	4.0
	Electives (0-4 credits)	0-4

Second Year

Summer Quarter

Course Code	Title	Credits
BISCD 0660	Laboratory Research for Thesis	1.0-6
BISCD 0665	Thesis Proposal	3.0
BISCD 0681	Literature Review	2.0
	Electives (0-4 credits)	0-4

Fall Quarter

Course Code	Title	Credits
BISCD 0653	Seminar in the Biomedical Sciences	1.0
BISCD 0661	Laboratory Research for Thesis	1.0-6
	Electives (0-4 credits)	0-4

Winter Quarter

Course Code	Title	Credits
BISCD 0654	Seminar in the Biomedical Sciences	1.0
BISCD 0662	Laboratory Research for Thesis	1.0-6
	Electives (0-4 credits)	0-4

Spring Quarter

Course Code	Title	Credits
BISCD 0663	Laboratory Research for Thesis	1.0-6
BISCD 0680	Thesis	4.0
	Electives (0-4 credits)	0-4

Electives

All students must complete a minimum of 9 hours of elective coursework to satisfy the credit requirement for graduation.

Course Code	Title	Credits
ANATD 0945	Human Anatomy	4.0
ANATD 0955	Human Neuroscience	3.0
BISCD 0913	Nutrition Therapy	1.0
BISCD 0928	Environmental Health Sciences	2.0
BISCD 0944	Biomedical Imaging	3.0
BISCD 0945	Biomarkers in Health and Disease	2.0
BISCD 0950	Intestinal Bacteria in Health and Disease	2.0
BISCD 0963	Hormones and Behavior	2.0
BISCD 0980	Pathophysiology	4.0
MICRD 0903	Vaccines	1.0
MICRD 0904	Cultural Transformation	1.0
PHARD 0994	Pharmacology I	3.0
PHARD 0995	Pharmacology II	3.0
PHARD 0996	Pharmacology III	3.0
PHYSD 0937	Exercise Physiology	3.0
PSCID 0879	LGBTQI Considerations in the Provision of Healthcare	2.0
	Total Credits	72

Curriculum (Effective Fall 2022)

Degree Type

Master of Biomedical Sciences (M.B.S.)

For students who entered the Master of Biomedical Sciences Program in Fall 2022.

Total Credit Hours Required: 72

The Program reserves the right to alter the curriculum as it deems appropriate.

First Year

Fall Quarter

Course Code	Title	Credits
BIOCD 0561	CGS Biochemistry I	3.5
BISCD 0550	Professional Development	1.0
BISCD 0552	Fundamentals of Research	3.0
BISCD 0556	Research Design and Methodology	3.0
PHYSD 0550	Human Physiology I	3.5

Winter Quarter

Course Code	Title	Credits
BIOCD 0571	CGS Biochemistry II	2.5
BISCD 0557	Principles of Biostatistics	3.0
MICRD 0599	Molecular Immunology	3.0
PHYSD 0551	Human Physiology II	3.5
	Electives (0-2 credits)	0-2

Spring Quarter

Course Code	Title	Credits
BIOCD 0580	Human Genetics	1.0
BISCD 0558	Literature Review	2.0
BISCD 0560	Laboratory Research for Thesis	1.0-6
BISCD 0570	Ethics of Research and Experimentation	2.0
MICRD 0583	Medical Microbiology with Lab	4.0
	Electives (0-4 credits)	0-4

Second Year

Summer Quarter

Course Code	Title	Credits
BISCD 0650	Journal Club	2.0
BISCD 0660	Laboratory Research for Thesis	1.0-6
BISCD 0665	Thesis Proposal	3.0
	Electives (0-4 credits)	0-4

Fall Quarter

Course Code	Title	Credits
BISCD 0653	Seminar in the Biomedical Sciences	1.0
BISCD 0661	Laboratory Research for Thesis	1.0-6
	Electives (0-4 credits)	0-4

Winter Quarter

Course Code	Title	Credits
BISCD 0654	Seminar in the Biomedical Sciences	1.0
BISCD 0662	Laboratory Research for Thesis	1.0-6
	Electives (0-4 credits)	0-4

Spring Quarter

Course Code	Title	Credits
BISCD 0663	Laboratory Research for Thesis	1.0-6
BISCD 0680	Thesis	4.0
	Electives (0-4 credits)	0-4

Electives

All students must complete a minimum of 9 hours of elective coursework to satisfy the credit requirement for graduation.

Course Code	Title	Credits
ANATD 0945	Human Anatomy	4.0
ANATD 0955	Human Neuroscience	3.0
BISCD 0913	Nutrition Therapy	1.0
BISCD 0928	Environmental Health Sciences	2.0
BISCD 0944	Biomedical Imaging	3.0
BISCD 0945	Biomarkers in Health and Disease	2.0
BISCD 0950	Intestinal Bacteria in Health and Disease	2.0
BISCD 0963	Hormones and Behavior	2.0
BISCD 0980	Pathophysiology	4.0
MICRD 0903	Vaccines	1.0
MICRD 0904	Cultural Transformation	1.0
PHARD 0994	Pharmacology I	3.0
PHARD 0995	Pharmacology II	3.0
PHARD 0996	Pharmacology III	3.0
PHYSD 0937	Exercise Physiology	3.0
PSCID 0879	LGBTQI Considerations in the Provision of Healthcare	2.0
	Total Credits	72

Courses

ANATD 0945: Human Anatomy

This course provides fundamental knowledge of normal human structure and function. The emerging theme will be the interrelationships between anatomical structures and functional capabilities. During this course, basic components including tissues, muscles, nerves, bones and joints will be covered. The major organ and musculoskeletal systems will be highlighted in both lecture and laboratory formats.

Credits 4.0

ANATD 0955: Human Neuroscience

In this course students learn to identify and describe the basic structural components and corresponding functions of the human nervous system. Lectures are given by faculty from the Department of Anatomy.

Credits 3.0

BIOCD 0561: CGS Biochemistry I

This course emphasizes concepts in cell and molecular biology and human nutrition. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry.

Credits 3.5

BIOCD 0571: CGS Biochemistry II

This course emphasizes principles and concepts of structure-function relationships in major biomolecules and human metabolism. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry.

Credits 2.5

BIOCD 0580: Human Genetics

This course is devoted to introducing the foundations of human genetics. Topics include normal transmission of dominant and recessive genetic traits, sex-linked/autosomal-linked inheritance, common genetic defects and diseases, inheritance patterns and probabilities, genetic mapping, common risk factors in inherited/acquired genetic diseases, family counseling, and family planning issues.

Credits 1.0

BISCD 0550: Professional Development

The purpose of this required pass/fail course is to provide students with skills that are necessary for professional development. The course will feature professionals from different disciplines who will discuss their professions and career paths. The course will also provide students training in interviewing, writing resumes/CVs, and personal statements.

Credits 1.0

BISCD 0552: Fundamentals of Research

The purpose of this required course is to provide students with basic training in common laboratory techniques. The course will also introduce students to issues related to biosafety, radiation safety, and good practices in research.

Credits 3.0

BISCD 0556: Research Design and Methodology

This course overviews the uses, values, and limitations of the scientific method. Quantitative, conceptual and model analysis, in-depth research techniques, current research of the literature, research design methods, and theory construction are presented.

Credits 3.0

BISCD 0557: Principles of Biostatistics

This course teaches students how to apply analytical and statistical techniques to make inferences about research findings. This course covers core principles of biostatistics including basic statistical techniques, introduction to descriptive statistics, statistical inference, significance tests, multiple comparisons tests, correlation and regression analyses. This course also teaches students how to run statistical analyses and create publication-ready figures using GraphPad Prism software.

Credits 3.0

BISCD 0558: Literature Review

The purpose of this required course is to teach students how to access and search the scientific literature for the purpose of writing a comprehensive literature review related to their thesis topic.

Credits 2.0

BISCD 0560: Laboratory Research for Thesis

This required independent laboratory research project is the main objective of the Master of Biomedical Sciences degree program. The project entails original research on a current basic science question. The intent of the project is to develop an appropriate research question, design the proper laboratory methodology to answer the question, and collect the appropriate data.

Credits 1.0-6

Prerequisites

[BISCD 0552](#) Fundamentals of Research and [BISCD 0556](#) Research Design and Methodology, or Program permission

BISCD 0570: Ethics of Research and Experimentation

This course is intended to give students a broad overview of research ethics and regulation as it relates to human and animal research. Students develop an understanding of the historic and moral basis of research ethics including scientific integrity, research misconduct, research with human subjects, research with animal subjects, peer-review, plagiarism, and conflicts of interest.

Credits 2.0

BISCD 0581: Journal Club

This course will teach students how to build formal presentations and critique findings from published research articles. The instructor will provide lecture materials and interactive computer workshops designed to improve students' PowerPoint skills and public speaking abilities. Students will be required to read current, peer-reviewed primary research articles and summarize the findings into original, visually-oriented presentations. Individual feedback sessions with honest, constructive criticism will help students reach their potential as effective science communicators.

Credits 2.0

BISCD 0650: Journal Club

This course will teach students how to build formal presentations and critique findings from published research articles. The instructor will provide lecture materials and interactive computer workshops designed to improve students' PowerPoint skills and public speaking abilities. Students will be required to read current, peer-reviewed primary research articles and summarize the findings into original, visually-oriented presentations. Individual feedback sessions with honest, constructive criticism will help students reach their potential as effective science communicators.

Credits 2.0

BISCD 0653: Seminar in the Biomedical Sciences

These courses are designed to expose the student to a variety of scientific topics. This is accomplished by attendance at the research seminar series. The student is also expected to present a seminar on their thesis research and a seminar on a Biomedical Sciences topic of their choice.

Credits 1.0

BISCD 0654: Seminar in the Biomedical Sciences

These courses are designed to expose the student to a variety of scientific topics. This is accomplished by attendance at the research seminar series. The student is also expected to present a seminar on their thesis research and a seminar on a Biomedical Sciences topic of their choice.

Credits 1.0

BISCD 0655: Seminar in the Biomedical Sciences for Dual Degree

These courses are designed to expose the student to a variety of scientific topics. This is accomplished by attendance at the research seminar series. The student is also expected to present a seminar on their thesis research and a seminar on a Biomedical Sciences topic of their choice.

Credits 1.0

BISCD 0656: Seminar in the Biomedical Sciences for Dual Degree

These courses are designed to expose the student to a variety of scientific topics. This is accomplished by attendance at the research seminar series. The student is also expected to present a seminar on their thesis research and a seminar on a Biomedical Sciences topic of their choice.

Credits 1.0

BISCD 0660: Laboratory Research for Thesis

This required independent laboratory research project is the main objective of the Master of Biomedical Sciences degree program. The project entails original research on a current basic science question. The intent of the project is to develop an appropriate research question, design the proper laboratory methodology to answer the question, and collect the appropriate data.

Credits 1.0-6

Prerequisites

[BISCD 0552](#) Fundamentals of Research and [BISCD 0556](#) Research Design and Methodology, or Program permission

BISCD 0661: Laboratory Research for Thesis

This required independent laboratory research project is the main objective of the Master of Biomedical Sciences degree program. The project entails original research on a current basic science question. The intent of the project is to develop an appropriate research question, design the proper laboratory methodology to answer the question, and collect the appropriate data.

Credits 1.0-6

Prerequisites

[BISCD 0552](#) Fundamentals of Research and [BISCD 0556](#) Research Design and Methodology, or Program permission

BISCD 0662: Laboratory Research for Thesis

This required independent laboratory research project is the main objective of the Master of Biomedical Sciences degree program. The project entails original research on a current basic science question. The intent of the project is to develop an appropriate research question, design the proper laboratory methodology to answer the question, and collect the appropriate data.

Credits 1.0-6

Prerequisites

[BISCD 0552](#) Fundamentals of Research and [BISCD 0556](#) Research Design and Methodology, or Program permission

BISCD 0663: Laboratory Research for Thesis

This required independent laboratory research project is the main objective of the Master of Biomedical Sciences degree program. The project entails original research on a current basic science question. The intent of the project is to develop an appropriate research question, design the proper laboratory methodology to answer the question, and collect the appropriate data.

Credits 1.0-6

Prerequisites

[BISCD 0552](#) Fundamentals of Research and [BISCD 0556](#) Research Design and Methodology, or Program permission

BISCD 0665: Thesis Proposal

This course is an independent study course designed to give students the opportunity to perform literature research and develop a thesis proposal necessary for completion of the Master of Biomedical Sciences degree.

Credits 3.0

Prerequisites

[BISCD 0552](#) Fundamentals of Research, [BISCD 0556](#) Research Design and Methodology, [BISCD 0570](#) Ethics of Research and Experimentation, [BISCD 0557](#) Principles of Biostatistics, [BISCD 0558](#) Literature Review, and [BISCD 0560](#) Laboratory Research for Thesis (minimum of 3 credits), or Program permission

BISCD 0680: Thesis

The research project culminates with the analysis of experimental data, development of appropriate conclusions based on the information gathered, and summarizing the research findings in publication format. The student will also make a public presentation of the project to the Midwestern University community. The Thesis Committee approves the proposal, oversees the research project, and approves the final research thesis. Students who do not complete all thesis requirements will be enrolled in thesis continuation for subsequent quarters.

Credits 4.0

Prerequisites

Laboratory Research (e.g., [BISCD 0560](#), 0660, 0661, 0662 or 0663), [BISCD 0665](#) Thesis Proposal, and [BISCD 0558](#) Literature Review, or Program permission

BISCD 0681: Literature Review

The purpose of this required course is to teach students how to access and search the scientific literature for the purpose of writing a comprehensive literature review related to their thesis topic.

Credits 2.0

BISCD 0690: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0691: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0692: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0693: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0694: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0695: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0696: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0697: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0698: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0699: Thesis Continuation

These courses are reserved for students needing additional quarters beyond the spring quarter of Year 2 for completion of the research project and thesis. A fee is assessed with enrollment in these courses.

Credits 0.5

Prerequisites

[BISCD 0680](#) Thesis, Permission of Research Mentor, and Permission of Biomedical Sciences Program Director

BISCD 0913: Nutrition Therapy

This course introduces students to medical nutrition therapy which involves the use of nutritional interventions to manage common diseases in the health care setting. A general overview of nutrition management and intervention approaches will be provided including biochemical and physiological considerations for the diseases presented that include metabolic, gastrointestinal and renal disorders.

Credits 1.0

Prerequisites

[BIOCD 0561](#), 0571 CGS Biochemistry I, II; [PHYSD 0550](#), 0551 Human Physiology I, II or with prior course director approval.

BISCD 0928: Environmental Health Sciences

The purpose of this elective course is to introduce foundational principles, theories and research practices in environmental health sciences. Risks and reasons for pollution, contamination and the use of hazardous techniques/chemicals will be discussed, as well as the principles and practices used to address them. Lectures focus on primary principles and approaches in this field, while workshops focus on the practical applications of biomedical science in EHS and its contributions to public safety and policy.

Credits 2.0

BISCD 0944: Biomedical Imaging

This course covers various forms of clinical and research-grade microscopy. The format will consist of a weekly one hour lecture and a two and a half hour lab exercise (hands-on experience with compound, fluorescence, confocal, and electron microscopes, as well as computer programs for image analysis).

Credits 3.0

Prerequisites

[BISCD 0552](#) Fundamentals of Research or prior course director approval.

BISCD 0945: Biomarkers in Health and Disease

The purpose of this elective course is to present the concept and importance of biomarkers in health and disease. Generally speaking, a biomarker is anything that can be used as an indicator of a particular disease state or some other physiological state. We will cover the fundamentals of biomarker development, describe research methodologies for identification and detection of biomarkers and review several biomarkers currently used in the clinic along with some promising candidate biomarkers.

Credits 2.0

Prerequisites

[BIOCD 0561](#) CGS Biochemistry I or equivalent.

BISCD 0950: Intestinal Bacteria in Health and Disease

This course will discuss the role of intestinal bacteria in maintaining health and in the progression of disease states such as obesity, diabetes, and cardiovascular disease. Health benefits of probiotics, prebiotics, and exercise will be addressed with regards to their influence on intestinal bacteria. State-of-the-art techniques currently used to detect and characterize intestinal bacteria will be described. Course includes lectures by leaders in this area of investigation and active class discussion. Emphasis is on application of this information to clinical conditions.

Credits 2.0

BISCD 0956: Advanced Topics

The Advanced Topic Series is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format for instruction includes mentoring by individual faculty, case study discussion, review of landmark publications, and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0957: Advanced Topics

The Advanced Topic Series is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format for instruction includes mentoring by individual faculty, case study discussion, review of landmark publications, and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0958: Advanced Topics

The Advanced Topic Series is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format for instruction includes mentoring by individual faculty, case study discussion, review of landmark publications, and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0959: Advanced Topics

The Advanced Topic Series is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format for instruction includes mentoring by individual faculty, case study discussion, review of landmark publications, and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0960: Advanced Topics

The Advanced Topic Series is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format for instruction includes mentoring by individual faculty, case study discussion, review of landmark publications, and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0963: Hormones and Behavior

This course is intended to give students a broad overview of the role hormones play in modulating behaviors in humans and in animals. Students will develop an understanding of endocrine system function, research techniques used to study hormone effects on behaviors, the modulating role of hormones in behaviors across sexes and species, seminal research that established the field of behavioral endocrinology, and ongoing research on the role of hormones in behavior.

Credits 2.0

BISCD 0970: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0552](#) Fundamentals of Research; Approval of the course director.

BISCD 0971: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0552](#) Fundamentals of Research; Approval of the course director.

BISCD 0972: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0552](#) Fundamentals of Research; Approval of the course director.

BISCD 0980: Pathophysiology

This course is designed to discuss the etiology, pathogenesis and pathophysiology of selected human disease conditions. A brief review of the normal physiology of each organ system will be discussed prior to presenting prominent disease conditions in each of the following areas: immune regulation; wound healing; hematologic, cardiovascular, respiratory, renal, endocrine, gastrointestinal, neural, and musculoskeletal systems. The information presented in this course will build on previous information obtained in Human Physiology I and II.

Credits 4.0

Prerequisites

[PHYSD 0550](#), 0551 Human Physiology I, II or with prior course director approval

MICRD 0583: Medical Microbiology with Lab

This didactic course covers the physiology and molecular mechanisms of medically important microbes and their disease processes. The course includes experiential laboratory sessions that provide a hands-on experience in diagnostic and molecular laboratory procedures as well as experimental design.

Credits 4.0

MICRD 0599: Molecular Immunology

This didactic course will introduce students to the fundamental principles of immunology and delve into the molecular mechanisms behind these principles. It will focus on the innate and adaptive immune responses, detailing signal transduction mechanisms responsible for leukocyte activation, epigenetic remodeling involved in leukocyte differentiation, and the molecular biology behind immune responses. Additionally, it will detail recent advances in immunoprophylaxis, and therapies.

Credits 3.0

MICRD 0903: Vaccines

This course covers the following topics regarding vaccines: vaccine history, development and production of different types of vaccines, government regulation of vaccine approval, and the impact of vaccines on society. This is a lecture-based course that utilizes problem-based written assignments to foster the application of material.

Credits 1.0

Prerequisites

Completion of [MICRD 0520](#)/0599 is strongly suggested, but not required. Alternatively, Program permission is allowed.

MICRD 0904: Cultural Transformation

This course is focused on developing cultural awareness in society and improving respect and empathy toward cultural differences. The class starts with an introduction to the topic, followed by presentations (in person, recording, or video) on related topics. Group discussion will be used during class to promote self-reflection, detect biases and tendencies to stereotype, and realize other cultures' values. Each week, core concepts for understanding diversity issues and becoming more inclusive will be introduced.

Credits 1.0

PHARD 0994: Pharmacology I

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0995: Pharmacology II

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0996: Pharmacology III

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHYSD 0550: Human Physiology I

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbation of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the biophysical properties of membrane excitability, and the functions of the neuromuscular, cardiovascular, pulmonary, renal, acid-base, digestive, endocrine, and reproductive systems.

Credits 3.5

PHYSD 0551: Human Physiology II

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbation of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the biophysical properties of membrane excitability, and the functions of the neuromuscular, cardiovascular, pulmonary, renal, acid-base, digestive, endocrine, and reproductive systems.

Credits 3.5

PHYSD 0937: Exercise Physiology

This course presents core concepts and terminology in exercise physiology. Emphasis is placed on the immediate and long-term physiologic compensatory adjustments to exercise, the role of exercise in promoting optimal health, and the role of exercise as a diagnostic or therapeutic modality in disease states. This is a lecture-based course that utilizes problem-based written assignments to foster application of material.

Credits 3.0

Prerequisites

[PHYSD 0550](#), 0551 Human Physiology I, II

PSCID 0879: LGBTQI Considerations in the Provision of Healthcare

This course develops knowledge and skills to facilitate the provision of inclusive, compassionate and holistic patient centered care to members of the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI) community. Lecture topics include an introduction to LGBTQI terminology, culture and history, mental health and social service needs, and communication strategies. An emphasis on personal acknowledgement of knowledge/skills deficits may help to prevent health inequities for these populations in the future.

Credits 2.0

Master of Arts in Biomedical Sciences Program

Mission

The Midwestern University Master of Arts in Biomedical Sciences Program provides students with an in-depth education in the biomedical sciences and graduates students who are competitive applicants for admission into professional programs in healthcare.

Degree Description

The Master of Arts in Biomedical Sciences (M.A.) degree is a full-time, three-quarter, graduate level, coursework only program. This Program is designed to help students with a bachelor's degree, preferably with a major in the sciences, improve their academic foundation in the biomedical sciences and enhance their credentials for admission into medical school, dental school or other health professional program. All students take a total of 45 quarter hour credits: 41 required credits and 4 elective credits. Required courses include: CGS Biochemistry I & II, Human Genetics, Human Anatomy (with lab), Human Physiology I & II, Pathophysiology, Medical Microbiology, Molecular Immunology, Pharmacology I, II & III, Human Neuroscience and Professional Development. The elective credits, offered in a variety of disciplines, include other biomedical science courses and research-related courses. These electives improve critical thinking and enhance the student's preparation for professional school applications. The maximum allotted time for completion of the Program is two years.

Admissions

Admission Requirements

To be considered for admission to the Master of Arts in Biomedical Sciences degree program, applicants must submit the following documented evidence:

1. Completion of a bachelor's degree (B.A. or B.S.) or higher, preferably with a major in the sciences, from a regionally accredited college or university.
2. A minimum cumulative grade point average (GPA) of 2.75 on a scale of 4.00 for all coursework completed.

3. One letter of recommendation from pre-health advisors or committees, science professors, and health professionals.
4. Copies of transcripts from each college or university attended. Official transcripts must be submitted prior to matriculation.
5. Completion of typical health professions coursework including biology, general chemistry, organic chemistry, physics, mathematics, and English. Prospective students are responsible for determining the prerequisites for the health professional program and institution of their choice.
6. Completion of the prerequisite courses with grades of C or better (grades of C- are not acceptable).
7. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
8. Passage of the Midwestern University criminal background check.

Test scores from one of the following are optional: MCAT, PCAT, DAT, OAT, or GRE.

Prerequisite Courses

Course	Sem. Hrs.	Qtr. Hrs.
Biology with lab	8	12
General Chemistry with lab	8	12
Organic Chemistry with lab	8	12
Physics	4	6
Mathematics	3	4

Application Process and Deadlines

To be considered for admission into the Master of Arts in Biomedical Sciences Program, applicants must submit their application:

Apply through the Post Baccalaureate Centralized Application Service (PostBacCAS; <https://postbaccas.liasoncas.com/applicant-ux/#/login>). PostBacCAS allows students to learn about, compare, and apply to a number of post baccalaureate programs through one centralized application.

Requirements for application include:

1. One letter of recommendation (individual or committee letter).
2. Copies of transcripts from each college or university attended. Official transcripts must be submitted prior to matriculation from every undergraduate, graduate, or professional school that they have attended or are currently attending.
3. The deadline for submitting a completed application is July 15. Applications received after July 15 may not be reviewed.

Send application materials to:

Office of Admissions
 Midwestern University
 555 31st Street
 Downers Grove, IL 60515
 800/458-6253
admissil@midwestern.edu

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address. All requests for application withdrawal must be made in writing.

Selection Process

The Master of Arts in Biomedical Sciences Program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Master of Arts in Biomedical Sciences Program begins in the Fall Quarter. Admission to the Biomedical Sciences Program is considered on a competitive basis for applicants who have achieved the required prerequisites. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee feels would benefit the most from the Program. Selection decisions for the Program are made by the Biomedical Sciences Program Admissions Committee with the approval of the Program Director and the Dean of the College of Graduate Studies until the class is filled. To maximize their competitiveness within the rolling admission process, candidates are advised to submit their completed applications early in the admission cycle.

After receiving completed application packets, the information provided is verified to determine whether all prerequisite coursework has been completed satisfactorily or will be completed prior to potential matriculation and also to verify the cumulative GPAs for applicants for all completed courses. Completed applications are forwarded to the Biomedical Sciences Program Admissions Committee. Applicants will receive notification in writing of admissions decisions.

Please Note: Applicants may track the receipt of their application materials and the status of their files on the University's website. Instructions for accessing account information will be sent to the applicant by the Office of Admissions after receipt of the application. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address or e-mail address.

Articulation Agreements

Biomedical Sciences students may also qualify for specialized articulation agreements with other Midwestern University programs. Please contact the Office of Admissions for specific information and deadlines regarding articulation agreements that are in place for the professional program(s) in which you might be interested.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function

effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Transfer Course Credit

Students may request the transfer of graduate coursework taken at another accredited university to this degree program. However, no more than 9 quarter credit hours can be accepted as transfer credit. Policies for course transfers can be found in the Midwestern University College of Graduate Studies Catalog section titled Advanced Placement/Exemption from Coursework.

Transferring Between Programs

Students interested in transferring between Biomedical Sciences Programs should consult the Program Director.

Transferring from a Program Outside of Midwestern University

The Master of Arts in Biomedical Sciences degree program does not accept transfer students from a Master's Program outside of Midwestern University. Students would need to apply for admission to the Master of Arts in Biomedical Sciences degree program.

Graduation Requirements

To qualify for the Master of Arts in Biomedical Sciences (MABS) degree, students must:

1. Follow an approved course of study acceptable to the Student Promotion and Graduation Committee;
2. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.75;
3. Satisfactorily complete the required minimum of 45 quarter hour credits for the Master of Arts in Biomedical Sciences degree program;
4. Pass all required courses;
5. Receive a favorable recommendation for Master's degree conferral from the Student Promotion and Graduation Committee;
6. Receive a favorable recommendation for Master's degree conferral from the University Faculty Senate;
7. Settle all financial accounts with the University; and
8. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Curriculum

Degree Type

Master of Arts in Biomedical Sciences (M.A.)

Fall Quarter

Course Code	Title	Credits
BIOCD 0511	CGS Biochemistry I	3.5
BISCD 0530	Professional Development	1.0
PHARD 0594	Pharmacology I	3.0
PHYSD 0520	Human Physiology I	3.5
	Electives (1-4 credits)	1-4

Winter Quarter

Course Code	Title	Credits
ANATD 0503	Human Anatomy	4.0
BIOCD 0521	CGS Biochemistry II	2.5
MICRD 0520	Molecular Immunology	3.0
PHARD 0595	Pharmacology II	3.0
PHYSD 0521	Human Physiology II	3.5
	Electives (0-2 credits)	0-2

Spring Quarter

Course Code	Title	Credits
ANATD 0520	Human Neuroscience	3.0
BIOCD 0530	Human Genetics	1.0
BISCD 0540	Pathophysiology	4.0
MICRD 0530	Medical Microbiology	3.0
PHARD 0596	Pharmacology III	3.0
	Electives (1-4 credits)	1-4

Elective Course Options

Course Code	Title	Credits
BISCD 0812	Fundamentals of Research	3.0
BISCD 0813	Nutrition Therapy	1.0
BISCD 0820	Ethics of Research and Experimentation	2.0
BISCD 0826	Research Design and Methodology	3.0
BISCD 0828	Environmental Health Sciences	2.0
BISCD 0844	Biomedical Imaging	3.0
BISCD 0845	Biomarkers in Health and Disease	2.0
BISCD 0850	Intestinal Bacteria in Health and Disease	2.0
BISCD 0860	Research Elective	1.0-4
BISCD 0861	Research Elective	1.0-4
BISCD 0862	Research Elective	1.0-4
BISCD 0863	Hormones and Behavior	2.0
MICRD 0803	Vaccines	1.0
MICRD 0804	Cultural Transformation	1.0
PSCID 0879	LGBTQI Considerations in the Provision of Healthcare	2.0
	Total Credits	45

Faculty

Kathy J. LePard, Ph.D., Program Director

The Ohio State University
Professor

Mae J. Ciancio, Ph.D.

Loyola University, Chicago
Program Coordinator, Master of Biomedical Sciences
Program
Associate Professor

Joshua Gasiorowski, Ph.D.

Northwestern University
Integrated Graduate Program
Associate Director, Office of Research and Sponsored
Programs

Andrew B. Hawkey, Ph.D.

Associate Professor
University of Kentucky
Assistant Professor

Kolla Kristjansdottir, Ph.D.

Duke University
Duke University Medical Center
Associate Program Director, Precision Medicine
Program
Associate Professor

Kristina Martinez-Guryn, Ph.D., R.D.

University of North Carolina-Greensboro
School of Health and Human Sciences
Assistant Professor

Alesia V. Prakapenka, Ph.D.

Arizona State University
Assistant Professor

Courses

ANATD 0503: Human Anatomy

This course provides fundamental knowledge of normal human structure and function. The emerging theme will be the interrelationships between anatomical structures and functional capabilities. During this course, basic components including tissues, muscles, nerves, bones and joints will be covered. The major organ and musculoskeletal systems will be highlighted in both lecture and laboratory formats.

Credits 4.0

ANATD 0520: Human Neuroscience

In this course students learn to identify and describe the basic structural components and corresponding functions of the human nervous system. Lectures are given by faculty from the Department of Anatomy.

Credits 3.0

BIOCD 0511: CGS Biochemistry I

This course emphasizes concepts in cell and molecular biology and human nutrition. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry.

Credits 3.5

BIOCD 0521: CGS Biochemistry II

This course emphasizes principles and concepts of structure-function relationships in major biomolecules and human metabolism. This course includes lectures and workshops which utilize small group discussions focusing on clinical case studies to illustrate principles of clinical biochemistry.

Credits 2.5

BIOCD 0530: Human Genetics

This course is devoted to introducing the foundation of human genetics. Topics include normal transmission of dominant and recessive genetic traits, sex-linked/autosomal-linked inheritance, common genetic defects and diseases, inheritance patterns and probabilities, genetic mapping, common risk factors in inherited/acquired genetic diseases, family counseling, and family planning issues.

Credits 1.0

BISCD 0530: Professional Development

The purpose of this required pass/fail course is to provide students with skills that are necessary for professional development. The course will feature professionals from different disciplines who will discuss their professions and career paths. The course will also provide students training in interviewing, writing resumes/CVs, and personal statements.

Credits 1.0

BISCD 0540: Pathophysiology

This course is designed to discuss the etiology, pathogenesis and pathophysiology of selected human disease conditions. A brief review of the normal physiology of each organ system will be discussed prior to presenting prominent disease conditions in each of the following areas: immune regulation; wound healing; hematologic, cardiovascular, respiratory, renal, endocrine, gastrointestinal, neural, and musculoskeletal systems. The information presented in this course will build on previous information obtained in Human Physiology I and II.

Credits 4.0

BISCD 0812: Fundamentals of Research

The purpose of this course is to provide students with basic training in common laboratory techniques. The course will also introduce students to issues related to biosafety, radiation safety, and good practices in research.

Credits 3.0

BISCD 0813: Nutrition Therapy

This course introduces students to medical nutrition therapy which involves the use of nutritional interventions to manage common diseases in the health care setting. A general overview of nutrition management and intervention approaches will be provided including biochemical and physiological considerations for the diseases presented that include metabolic, gastrointestinal and renal disorders.

Credits 1.0

Prerequisites

[BIOCD 0511](#), 0521 CGS Biochemistry I, II; [PHYSD 0520](#), 0521 Human Physiology I, II or with prior course director approval.

BISCD 0820: Ethics of Research and Experimentation

This course is intended to give students a broad overview of research ethics and regulation as it relates to human and animal research. Students develop an understanding of the historic and moral basis of research ethics including scientific integrity, research misconduct, research with human subjects, research with animal subjects, peer-review, plagiarism, and conflicts of interest.

Credits 2.0

BISCD 0826: Research Design and Methodology

This course overviews the uses, values, and limitations of the scientific method. Quantitative, conceptual and model analysis, in-depth research techniques, current research of the literature, research design methods, and theory construction are presented.

Credits 3.0

BISCD 0828: Environmental Health Sciences

The purpose of this elective course is to introduce foundational principles, theories and research practices in environmental health sciences. Risks and reasons for pollution, contamination and the use of hazardous techniques/chemicals will be discussed, as well as the principles and practices used to address them. Lectures focus on primary principles and approaches in this field, while workshops focus on the practical applications of biomedical science in EHS and its contributions to public safety and policy.

Credits 2.0

BISCD 0844: Biomedical Imaging

This course covers various forms of clinical and research-grade microscopy. The format will consist of a weekly one hour lecture and a two and a half hour lab workshop (hands-on experience with compound, fluorescence, confocal, and electron microscopes, as well as computer programs for image analysis).

Credits 3.0

Prerequisites

[BISCD 0812](#) Fundamentals of Research or prior course director approval.

BISCD 0845: Biomarkers in Health and Disease

The purpose of this elective course is to present the concept and importance of biomarkers in health and disease. Generally speaking, a biomarker is anything that can be used as an indicator of a particular disease state or some other physiological state. We will cover the fundamentals of biomarker development, describe research methodologies for identification and detection of biomarkers and review several biomarkers currently used in the clinic along with some promising candidate biomarkers.

Credits 2.0

Prerequisites

[BIOCD 0511](#) CGS Biochemistry I or equivalent.

BISCD 0850: Intestinal Bacteria in Health and Disease

This course will discuss the role of intestinal bacteria in maintaining health and in the progression of disease states such as obesity, diabetes, and cardiovascular disease. Health benefits of probiotics, prebiotics, and exercise will be addressed with regards to their influence on intestinal bacteria. State-of-the-art techniques currently used to detect and characterize intestinal bacteria will be described. Course includes lectures by leaders in this area of investigation and active class discussion. Emphasis is on application of this information to clinical conditions.

Credits 2.0

BISCD 0856: Advanced Topics

Advanced Topics is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format or instruction includes mentoring by individual faculty, case study discussion, review of landmark publications and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0857: Advanced Topics

Advanced Topics is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format or instruction includes mentoring by individual faculty, case study discussion, review of landmark publications and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0858: Advanced Topics

Advanced Topics is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format or instruction includes mentoring by individual faculty, case study discussion, review of landmark publications and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0859: Advanced Topics

Advanced Topics is an opportunity for students to receive individualized or small group instruction on selected advanced topics in any of the basic science disciplines. Format or instruction includes mentoring by individual faculty, case study discussion, review of landmark publications and class presentations. Students are expected to master major concepts specific to the discipline selected. The mentoring faculty individualize evaluation of the student.

Credits 1.0-3

BISCD 0860: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0812](#) Fundamentals of Research; Approval of the course director.

BISCD 0861: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0812](#) Fundamentals of Research; Approval of the course director.

BISCD 0862: Research Elective

The purpose of this course is to give students hands-on experience in a basic science research laboratory. Students will participate in an ongoing project in the laboratory of a research mentor where they will learn various research techniques and methodologies.

Credits 1.0-4

Prerequisites

[BISCD 0812](#) Fundamentals of Research; Approval of the course director.

BISCD 0863: Hormones and Behavior

This course is intended to give students a broad overview of the role hormones play in modulating behaviors in humans and in animals. Students will develop an understanding of endocrine system function, research techniques used to study hormone effects on behaviors, the modulating role of hormones in behaviors across sexes and species, seminal research that established the field of behavioral endocrinology, and ongoing research on the role of hormones in behavior.

Credits 2.0

MICRD 0520: Molecular Immunology

This didactic course will introduce students to the fundamental principles of immunology and delve into the molecular mechanisms behind these principles. It will focus on the innate and adaptive immune responses, detailing signal transduction mechanisms responsible for leukocyte activation, epigenetic remodeling involved in leukocyte differentiation, and the molecular biology behind immune responses. Additionally, it will detail recent advances in immunoprophylaxis, and therapies.

Credits 3.0

MICRD 0530: Medical Microbiology

This course introduces the student to the medical microbial world with those concepts that are basic to viruses, prokaryotic and eukaryotic cells. In addition to the infectious diseases as the main topics covered in the lecture, in depth understanding of the molecular biology, genetics and virulence factors of microorganisms will be explained to gain a complete picture of bacterial pathogenesis. [MICRD 0583](#) Medical Microbiology with lab for 4 credits may be taken as an alternative after Program Director's approval.

Credits 3.0

MICRD 0583: Medical Microbiology with Lab

This didactic course covers the physiology and molecular mechanisms of medically important microbes and their disease processes. The course includes experiential laboratory sessions that provide a hands-on experience in diagnostic, molecular laboratory procedures and experimental design. Requires Program Director's approval to take in place of [MICRD 0530](#).

Credits 4.0

MICRD 0803: Vaccines

This course covers the following topics regarding vaccines: vaccine history, development and production of different types of vaccines, government regulation of vaccine approval, and the impact of vaccines on society. This is a lecture-based course that utilizes problem-based written assignments to foster the application of material.

Credits 1.0

Prerequisites

Completion of [MICRD 0520/0599](#) is strongly suggested, but not required. Alternatively, Program permission is allowed.

MICRD 0804: Cultural Transformation

This course is focused on developing cultural awareness in society and improving respect and empathy toward cultural differences. The class starts with an introduction to the topic, followed by presentations (in person, recording, or video) on related topics. Group discussion will be used during class to promote self-reflection, detect biases and tendencies to stereotype, and realize other cultures' values. Each week, core concepts for understanding diversity issues and becoming more inclusive will be introduced.

Credits 1.0

PHARD 0594: Pharmacology I

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0595: Pharmacology II

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHARD 0596: Pharmacology III

This course sequence introduces students to the general principles of drug action and the therapeutic uses and toxicities of drugs commonly used in humans. A drug's action is considered on an organ-system basis. Specific topics include drugs acting on the: autonomic and central nervous systems, cardiovascular and renal systems, gastrointestinal and genitourinary systems. In addition, discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones are presented. This course also includes discussions of environmental toxic agents and antidotes.

Credits 3.0

PHYSD 0520: Human Physiology I

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbation of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the biophysical properties of membrane excitability, and the functions of the neuromuscular, cardiovascular, pulmonary, renal, acid-base, digestive, endocrine, and reproductive systems.

Credits 3.5

PHYSD 0521: Human Physiology II

Students are introduced to the physiological principles and regulatory processes that underlie the normal function of the human body, and develop an understanding of the physiologic responses to perturbation of homeostasis and of pathophysiologic alterations that occur in disease. Didactic lectures are supplemented with workshops that focus on application of physiological concepts. Topics include the biophysical properties of membrane excitability, and the functions of the neuromuscular, cardiovascular, pulmonary, renal, acid-base, digestive, endocrine, and reproductive systems.

Credits 3.5

PHYSD 0837: Exercise Physiology

This course presents core concepts and terminology in exercise physiology. Emphasis is placed on the immediate and long-term physiologic compensatory adjustments to exercise, the role of exercise in promoting optimal health, and the role of exercise as a diagnostic or therapeutic modality in disease states. This is a lecture-based course that utilizes problem-based written assignments to foster application of material.

Credits 3.0

Prerequisites

[PHYSD 0520](#), 0521 Human Physiology I, II

PSCID 0879: LGBTQI Considerations in the Provision of Healthcare

This course develops knowledge and skills to facilitate the provision of inclusive, compassionate and holistic patient centered care to members of the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI) community. Lecture topics include an introduction to LGBTQI terminology, culture and history, mental health and social service needs, and communication strategies. An emphasis on personal acknowledgement of knowledge/skills deficits may help to prevent health inequities for these populations in the future.

Credits 2.0

Master of Public Health

Mission

The Master of Public Health program's mission is to provide public health education for healthcare professionals.

The Midwestern University Master of Public Health program is an interdisciplinary professional degree in public health. The curriculum emphasizes the interconnectedness of health among human, animal, and environmental systems and prepares students to address complex health challenges in a broad range of clinical and public

health settings. A student enrolled as a dual degree candidate in any of Midwestern University's health professional degree programs particularly enhances their medical knowledge, public health skills, and career options upon completion of this program.

Accreditation

Midwestern University is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413.

Degree Description

The Master of Public Health (M.P.H.) program may be completed as a dual degree option in conjunction with the following health professional degrees such as Doctor of Osteopathic Medicine, Doctor of Veterinary Medicine, Doctor of Optometry, or Doctor of Dental Medicine over a four-year period. Students enrolled in Physician Assistant, Pharmacy, and Podiatry cannot apply to this program. The maximum time allowed for completion of the degree is six years.

Graduates are prepared to directly enter the field as public health professionals or leverage their public health training to expand healthcare career options in clinical, research, community health, and regulatory medicine settings. The predominantly online, 56-quarter-credit Master's degree curriculum is designed to dovetail with Midwestern's healthcare professional programs, allowing dual degree students to complete most requirements during the didactic years of their professional programs.

The program includes required and elective coursework; a planned, supervised, and evaluated public health practicum; and a culminating project. Core courses are based on the five foundational public health knowledge domains of epidemiology, biostatistics, environmental health science, social and behavioral science, and health policy and management.

The public health practicum, a required component of the M.P.H. degree program, involves participation in approximately four full-time weeks of work at a field practice site, such as a county or state health department or government agency. For dual degree students, the practicum may be scheduled to coincide with the applicable health professional degree program's rotation schedule, with the approval of the respective Dean.

The M.P.H. program also includes a culminating project. This requirement may be completed in conjunction with the student's practicum or as an independent study. Topics may include, but are not limited to: developing or evaluating a public health-related program, conducting a community needs assessment, or conducting traditional hypothesis-driven research of a public health nature. Students will produce a formal written report and deliver an oral presentation of their findings to an appropriate audience as defined by the program.

Admissions

Admission Requirements

To be considered for admission to the M.P.H. degree program, applicants must submit the following documented evidence:

1. Completion of a baccalaureate or higher degree, preferably with a major in the sciences, from a regionally accredited institution. Coursework must include at least one course in college-level introductory biology and one course in college-level algebra or more advanced math.
2. Minimum cumulative grade point average (GPA) of 2.75 on a 4.0 scale.

3. Graduate Record Examination general test (GRE) using the institutional code for Midwestern University of 1769. Applicants holding advanced degrees or who are enrolled in one of Midwestern's healthcare professional degree programs are exempt from the GRE requirement.
4. Official transcripts of course work from each college or university attended.
5. Two letters of recommendation from individuals able to comment on the applicant's academic or professional experiences.
6. A completed Midwestern University application.
7. Personal Statement.
8. Resume or Curriculum Vita.
9. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
10. Passage of the Midwestern University criminal background check.

Application Process and Deadlines

To be considered for admission to the M.P.H. degree program, applicants must submit their applications online through the Midwestern University direct application. Dual degrees are completed in conjunction with healthcare professional degrees such as Doctor of Osteopathic Medicine, Doctor of Veterinary Medicine, Doctor of Optometry, or Doctor of Dental Medicine professional degree programs may apply to the M.P.H. program as a dual degree student by submitting an abbreviated online application through the Student Portal and releasing their Midwestern University application package to the M.P.H. program for admissions consideration. No additional application fee is required.

The M.P.H. degree program uses a rolling admissions process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The program begins in the Summer Quarter. After receiving completed application packets, the Midwestern University Office of Admissions verifies the information provided to determine whether all prerequisites have been completed satisfactorily, or they will be completed prior to potential matriculation and also to verify the cumulative GPAs for all completed courses. Admission to the M.P.H. degree program is considered on a competitive basis for applicants submitting completed applications. To maximize their competitiveness within this rolling admission process, candidates are advised to submit their completed applications early in the admission cycle. The deadline for applications is April 15 or the first business day thereafter.

Selection Process

Multiple criteria are used to select the most qualified candidates, including selection of those students the M.P.H. Admissions Committee determines who would benefit the most from the program. Selection decisions for the program are made by the M.P.H. Admissions Committee, with the approval of the Dean of the College of Graduate Studies. Applicants are notified either electronically (i.e., through their admissions portal or by e-mail) or by letter of admissions decision.

Please Note: Applicants may track the receipt of their application materials and the status of their files on the University's website using instructions for accessing account information that will be sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address or e-mail address. All requests for application withdrawals must be made in writing to the Office of Admissions:

Midwestern University
Office of Admissions
19555 N. 59th Avenue
Glendale, AZ 85308
888/247-9277 or 623/572-3215
admissaz@midwestern.edu

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
630/515-6171 or 800/458-6253
admissil@midwestern.edu

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment and the consistent, prompt completion of all responsibilities and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the

Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Transfer Credit from Other Institutions

The M.P.H. program allows for the transfer of up to 10 quarter-credits from equivalent graduate-level coursework completed at other institutions (within the past 10 years) prior to matriculation at Midwestern University. Generally, transfer credit will only be given to students who satisfactorily completed coursework in a CEPH-accredited M.P.H. or an accredited professional healthcare degree program with a minimum letter grade of "B." Students must submit a letter of request to the M.P.H. Program Director, who will evaluate the submitted course materials with the appropriate course director to determine whether the course(s) is an appropriate substitute. If the M.P.H. Program Director denies the request for transfer credit, the student may appeal this decision to the CGS Dean. If a course is accepted for credit, the equivalent Midwestern University course and the Transfer Credit notation will be recorded on transcripts along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on transcripts or used in GPA calculations.

Primary Program Liaisons

The M.P.H. program assigns an advisor to students in each matriculating cohort to assist with academic concerns. For dual degree students, primary program liaisons are available to assist students with the unique challenges of simultaneously managing two programs of study. In addition to advisors and program liaisons, the Program Director, CGS Dean, Associate Deans, and the Dean of Students are also available to assist students. It is the student's responsibility to initiate contact with these individuals for assistance.

Satisfactory Academic Progress

A student enrolled as a dual degree student in the M.P.H. program and in a qualifying Midwestern health professional degree program is required to pass all required M.P.H. courses with a grade of "C" or higher and maintain a cumulative GPA of 2.50 or higher in the M.P.H. program. Regardless of satisfactory academic progress in the M.P.H. program, the CGS Student Promotion and Graduation Committee may determine that a dual degree student who experiences academic difficulty in the primary degree take a leave of absence from the M.P.H. program until satisfactory academic progress in the primary program is achieved. Separate criteria for achieving satisfactory academic progress in the primary degree program are listed in the catalog under the respective degree program.

Graduation Requirements

To qualify for the M.P.H. degree, students must:

1. Complete satisfactorily all courses with a minimum cumulative grade point average of 2.50.
2. Complete satisfactorily the required minimum number of 56 quarter-credits in the curriculum.
3. Receive a favorable recommendation for Master's degree conferral from the CGS Student Promotion and Graduation Committee.
4. Receive a favorable recommendation for Master's degree conferral from the University Faculty Senate.
5. Settle all financial accounts with the University.
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

M.P.H. degrees earned as part of the dual degree option are awarded at the commencement for the primary health professional degree program. All other M.P.H. degrees are awarded at the CGS commencement.

Curriculum (2020 - 2022 Cohorts)

The M.P.H. Program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter credits required for program completion is 56.

Dual Degree Option

Degree Type

Master of Public Health (M.P.H.)

Sample sequencing of courses and course credits. Students may elect to take fewer credit hours during the Summer Quarter. Not all electives are offered every quarter.

Summer Quarter (Year 1)

Course Code	Title	Credits
PUBHG 510	Introduction to Public Health	2.0
PUBHG 514	Health Policy and Management	3.0
PUBHG 515	Introduction to Environmental & Occupational Health	3.0
PUBHG 516	Behavioral and Social Aspects of Public Health	3.0
PUBHG 520	Epidemiology I	2.0
PUBHG 530	Biostatistics I	2.0

Summer Quarter (Year 2)

Course Code	Title	Credits
PUBHG 511	Introduction to M.P.H. Project and Practicum	1.0
PUBHG 521	Epidemiology II	2.0
PUBHG 531	Biostatistics II	2.0
PUBHG 610	Globalization and Impacts to Health	2.0
PUBHG 630	Application of One Health Principles and Practice	2.0
PUBHG 631	Epidemiology of Emerging Infectious Diseases	2.0
PUBHG 650	Climate Change, Ecosystem Stability and Public Health	2.0

Fall, Winter and/or Spring Quarters (Year 2)

Credits transferred from the primary health professional degree program 16 credits

Fall, Winter, and/or Spring Quarters (Years 3-4)

Course Code	Title	Credits
PUBHG 512	Design of the M.P.H. Practicum	0.5
PUBHG 513	Design of the M.P.H. Project	0.5
PUBHG 635	US. and Global Food Systems	2.0
PUBHG 660	Public Health Emergency Preparedness and Disaster Response	2.0
PUBHG 710	Public Health Practicum	3.0
PUBHG 720	Culminating Project	4.0
	Total Credits	56

Curriculum (2023 Cohort and Later)

Degree Type

Master of Public Health (M.P.H.)

The M.P.H. Program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter credits required for program completion is 56.

DUAL DEGREE OPTION

Sample sequencing of courses and course credits. Students may elect to take fewer credit hours during the Summer Quarter. Not all electives are offered every quarter.

Summer Quarter (Year 1)

Course Code	Title	Credits
PUBHG 510	Introduction to Public Health	2.0
PUBHG 515	Introduction to Environmental & Occupational Health	3.0
PUBHG 517	Behavioral and Social Impacts on Public Health	2.0
PUBHG 525	Principles of Epidemiology	3.0
PUBHG 526	Program Assessment, Planning, and Evaluation	3.0
PUBHG 535	Quantitative Research	2.0

Summer Quarter (Year 2)

Course Code	Title	Credits
PUBHG 514	Health Policy and Management	3.0
PUBHG 537	Biostatistics and Research	2.0
PUBHG 655	Impacts of Equity, Diversity, Inclusion, Climate Change, and Environmental Justice on Health	3.0
PUBHG 536	Qualitative Research	2.0
PUBHG 665	Leadership and Management in Health	3.0

Fall, Winter and/or Spring Quarters (Year 2)

Credits transferred from the primary health professional degree program 16 credits

Fall, Winter, and/or Spring Quarters (Years 3-4)

Course Code	Title	Credits
PUBHG 518	Health Systems	2.0
PUBHG 615	Food Systems as a Model of Globalization and One Health	2.0
PUBHG 630	Application of One Health Principles and Practice	2.0
PUBHG 631	Epidemiology of Emerging Infectious Diseases	2.0
PUBHG 660	Public Health Emergency Preparedness and Disaster Response	2.0
PUBHG 710	Public Health Practicum	3.0
PUBHG 725	Public Health Culminating Project	2.0
	Total Credits	59

Faculty

David Line, Ph.D., M.P.H., M.S.W., Program Director
University of New Mexico
Assistant Professor

Charlotte Bolch, Ph.D., M.S.
University of Florida
Manager of BioClinical Statistics and Adjunct Assistant Professor

Anthony Peluso, Dr.PH., M.P.H.
East Tennessee State University
Assistant Professor

Lawrence Sands, D.O., M.P.H.
Midwestern University, Chicago College of Osteopathic Medicine
Associate Professor

Felicia Trembath, Ph.D., M.P.H.
Purdue University
Assistant Professor

Mariah Zeigler, D.V.M., M.P.H., DACVPM
Virginia Maryland Regional College of Veterinary Medicine
Assistant Professor

Courses

PUBHG 510: Introduction to Public Health

In this course, students examine the field of public health, including the history of public health, its relationship to healthcare systems, applications of public health, social determinants of health, and the legal and ethical issues associated with public health. The objective is to provide students with a foundation in these and other cross-cutting public health topics for the remainder of the program.

Credits 2.0

PUBHG 511: Introduction to M.P.H. Project and Practicum

In this course, students learn the criteria for successful completion of the M.P.H. degree requirements and familiarize themselves with the organizations offering potential practicum and project opportunities. The course integrates goal setting, timelines, and curriculum planning for successful completion of the degree program.

Credits 1.0

Prerequisites

Course Director Approval

PUBHG 512: Design of the M.P.H. Practicum

In PUBHG 512, students are guided in developing a proposal for their applied public health practicum experience. Students identify a practicum site, determine applied practice objectives, and submit all necessary University forms and supporting documents prior to beginning their practicum.

Credits 0.5

Prerequisites

Course Director Approval

PUBHG 513: Design of the M.P.H. Project

In PUBHG 513, students are guided in developing a proposal for their culminating project and developing a plan to address its objectives. They will also demonstrate compliance with the process of institutional review and approval for student research by submitting all required University forms and supporting documents prior to study implementation.

Credits 0.5

Prerequisites

Course Director Approval

PUBHG 514: Health Policy and Management

This course introduces students to basic concepts in public health policy and public health program management. They will learn basics of healthcare organization and learn to distinguish between health policy and healthcare policy. Students will be presented a framework for health policy analysis. They will learn basic tools in program management.

Credits 3.0

PUBHG 515: Introduction to Environmental & Occupational Health

This introductory course provides students with a broad exposure to basic environmental and occupational health topics including: ecology; population dynamics; air pollution; toxicology; food safety and security; climate change; renewable energy; vector-borne disease; environmental policy; workplace health and safety; water treatment; waste disposal; and risk communication. Students engage in online discussions covering the specific, general, and global issues associated with these topics and their relationship to population health.

Credits 3.0

PUBHG 516: Behavioral and Social Aspects of Public Health

In this course, students examine how the behavioral and social sciences can be used to: (1) understand human health-related behavior and (2) guide the application of behavioral theory to modify behavior in order to prevent, reduce, or eliminate public health problems. Students are provided with an overview of behavior-oriented perspectives based on health promotion/education, psychology, and health communication. The overall objective is that students are able to apply health behavior theory to primary and secondary disease prevention.

Credits 3.0

PUBHG 517: Behavioral and Social Impacts on Public Health

In this course, students examine how the behavioral and social sciences can be used to (1) understand human health-related behavior and (2) guide the application of behavioral theory to modify behavior in order to prevent or reduce the burden of public health problems. Students are provided with an overview of behavior-oriented perspectives based on health promotion/education, psychology, and health communication. Important social determinants of health are discussed with the overall objective that students successfully completing the course are able to apply health behavior theory to primary and secondary disease prevention.

Credits 2.0

PUBHG 518: Health Systems

In this course, students analyze the delivery of health care and public health in the United States and in other nations. An emphasis is placed on the organization, financing, management, and evaluations of various health systems. Global and national agencies and policies central to the delivery of health care and public health will be identified and examined with an emphasis on causes of health inequity and solutions which create health equity.

Credits 2.0

PUBHG 520: Epidemiology I

In this introductory course, students learn basic epidemiological principles, methods, and tools to study the health of populations. Topics focus on the dynamics of disease transmission, descriptive epidemiological measures of disease, and then transitions to instruction on basic principles of study design. The main objective of this course is to provide students with an appreciation for the relevance of epidemiology to their professional discipline and a foundation that will prepare them to apply these concepts further in PUBHG 521, Epidemiology II.

Credits 2.0

PUBHG 521: Epidemiology II

This course expands upon the basic concepts of epidemiology presented in [PUBHG 520](#) Epidemiology I. Students learn advanced principles of study design and discuss methodological issues including sampling, measurement error, bias, and confounding, and they are introduced to the basics of data analysis. The overall objective of this course is to prepare students to apply epidemiological methods to the breadth of settings in clinical and public health practice.

Credits 2.0

Prerequisites

[PUBHG 520](#) Epidemiology I, [PUBHG 530](#) Biostatistics I

PUBHG 525: Principles of Epidemiology

In this course, students learn basic epidemiological principles, methods, and skills to study the health of populations. Topics focus on the dynamics of disease transmission, descriptive epidemiological measures of disease, principles of study design, and causal inference. The main objective of this course is to provide students with a foundation that will prepare them to apply these concepts to both research and public health practice. This is a required course for obtaining the M.P.H. degree.

Credits 3.0

PUBHG 526: Program Assessment, Planning, and Evaluation

Course content will focus on the program/community assessment, program planning, and program evaluation. The central focus of the course will be the program framework to demonstrate and apply logic models for program assessment, planning, and evaluation. Students will use the framework of a logic model to assess population needs and capacities to understand what can be utilized to improve communities' health. A design plan for a population-based community health program and an evaluation plan to evaluate the public health program will be the main deliverables for the course. This is a required course for obtaining the M.P.H. degree.

Credits 3.0

PUBHG 530: Biostatistics I

This course introduces biostatistical methods and applications. Students will learn basic probability theory, descriptive and inferential statistics, and the role of biostatistics in the practice of public health. Students will also learn a statistical software package (SAS). The main objective of this course is to provide students with a strong biostatistics foundation and understanding of the importance of statistical knowledge in public health. This course will be a foundation for PUBHG 531 Biostatistics II.

Credits 2.0

PUBHG 531: Biostatistics II

This course expands the basic concepts presented in [PUBHG 530](#), Biostatistics I. Students learn advanced statistical procedures commonly used in biomedical and public health research, including techniques for the analysis of frequency data, non-parametric methods, simple linear regression and correlation, analysis of variance, multiple regression, logistic regression, and analysis of survival data. Upon completion of this course, students are able to apply statistical tests used in biomedical and public health research and practice.

Credits 2.0

Prerequisites

[PUBHG 530](#) Biostatistics I

PUBHG 535: Quantitative Research

Course content will focus on quantitative research methods to address public health issues. The main goal of the course is to introduce students to the research investigative cycle within the context of public health with planning, collecting data, summarizing the data, using statistical inference, and making appropriate conclusions from the study. The course will cover types of variables and processes for data collection from a quantitative perspective, study design concepts, and descriptive statistics. Students will be introduced to a statistical software package (SAS) and be able to analyze data using descriptive statistics. This is a required course for obtaining the M.P.H. degree.

Credits 2.0

PUBHG 536: Qualitative Research

In this course, students review and utilize qualitative techniques commonly seen in public health research and practice. Students are introduced to a variety of topics including, but not limited to, paradigms of qualitative research and inquiry, selected data collection and analysis methods for qualitative research in public health and strategies for reporting qualitative findings. The course emphasizes the development of practical skills in selecting a qualitative research methodology, engaging in qualitative data collection (e.g., interview or focus group facilitation), and analyzing and interpreting qualitative data.

Credits 2.0

PUBHG 537: Biostatistics and Research

This course introduces biostatistical methods and applications. We will cover inferential statistics (t-tests, Chi-square tests, correlation analysis, and linear regression), the role of biostatistics in the practice of public health, and how to align methods to answer statistical questions in public health. Students will be able to explain the role of quantitative methods in describing and assessing a population's health. Students will be able to select appropriate quantitative methods to answer research questions given certain data collection methods. Students will also learn a statistical software package (SAS) in depth and be able to analyze quantitative data. The main objective of this course is to provide students with a strong biostatistics foundation and understanding of the importance of statistical knowledge in public health. This is a required course for obtaining the M.P.H. degree.

Credits 2.0

PUBHG 610: Globalization and Impacts to Health

In this course students explore the effects of globalization and its social and scientific consequences in public health with the objective of developing systems thinking to address global health concerns. Topics include the interplay between global stressors such as population growth and migration, war, economic policy, urbanization, land use and environmental change, and the effects on the health of human and animal populations.

Credits 2.0

PUBHG 615: Food Systems as a Model of Globalization and One Health

In this course students explore the effects of globalization and its social and scientific consequences in public health with the objective of developing systems thinking to address global health concerns. Topics include the interplay between global stressors such as population growth and migration, war, economic policy, urbanization, land use and environmental change, and the effects on the health of human and animal populations.

Credits 2.0

PUBHG 630: Application of One Health Principles and Practice

In this course, students learn strategies to engage stakeholders across multiple disciplines, geographic locations, and cultural perspectives to address public health challenges using One Health approaches. Students learn how the principles of One Health are applicable to current issues that threaten human, animal, and environmental health. Case studies are used to analyze practices and to propose One Health strategies for a range of public health problems.

Credits 2.0

PUBHG 631: Epidemiology of Emerging Infectious Diseases

Students address recently emerging infectious diseases and explore emergence factors and impacts on public health from a One Health perspective. Epidemiologic concepts such as natural reservoirs, modes of transmission, in-apparent versus apparent infections, and herd immunity are discussed. The objective is for students to learn and apply strategies for prevention and control of zoonotic and other emerging infections. Case studies are used to illustrate and apply concepts.

Credits 2.0

PUBHG 635: US. and Global Food Systems

Students receive an overview of food governance, policy, and regulation in the United States and globally. The roles of public and private sectors at the local, state, national, and international levels are reviewed with the objective of giving students a perspective on the complexity of food policy through legislation, government regulations, and private sector agreements that ultimately impact global health. Students choose a relevant topic with the objective of critically analyzing the current food regulatory system in the U.S. based on these factors.

Credits 2.0

PUBHG 650: Climate Change, Ecosystem Stability and Public Health

This course presents a public health perspective on climate change and ecosystem health. Students explore topics such as how climate change is defined and assessed; its environmental causes and effects; and its effects on populations. Public health initiatives, public education, and policy options to reduce climate change, minimize its effects, and heighten resilience are discussed. The overall objective is for students to articulate how global policies related to energy and agriculture impact human, animal, and ecosystem health.

Credits 2.0

Prerequisites

[PUBHG 515](#) Introduction to Environmental and Occupational Health

PUBHG 655: Impacts of Equity, Diversity, Inclusion, Climate Change, and Environmental Justice on Health

This course presents a public health perspective on climate change and ecosystem health. Students explore how climate change is defined and assessed; its environmental causes and effects; and its effects on populations. Public health initiatives, public education, and policy options to reduce climate change, minimize its effects, and heighten resilience are discussed. The background science and ethics of diversity and inclusion will be applied to the study of climate change, with a focus on climate and environmental justice and cultural humility. The overall objective of this course is for students to articulate how global policies related to energy and agriculture impact human, animal, and ecosystem health and how diversity, inclusion, and cultural humility are key elements to these relationships.

Credits 3.0

PUBHG 660: Public Health Emergency Preparedness and Disaster Response

Students learn about the National Response Framework and how the US government responds to domestic disasters. The phases of disaster response and the roles and responsibilities of local, state, and Federal agencies are discussed. The objective of the course is for students to understand the factors that enable them, as medical and public health leaders and responders to comprehensively assess these crises and effectively participate in their management and response.

Credits 2.0

PUBHG 665: Leadership and Management in Health

In this course, students will explore leadership, management, grant, and finance from a health perspective. Leadership attributes including ethics, courage, values, and supervision will be examined. Fayol's five functions of management will be explored. Fundamental accounting and finance documents and procedures will also be introduced with an emphasis on the contract and proposal process.

Credits 3.0

PUBHG 710: Public Health Practicum

Students participate in experiential training in public health within healthcare settings and government-sponsored organizations in the local geographic area and other more distant sites. Students enhance their didactic learning experiences by practical application, and they acquire a broad public health perspective to specific health-related problem solving. Students receive a total of 3 credits for the practicum experience, which may span one or more quarters.

Credits 3.0

Prerequisites

All 500-level required core courses

PUBHG 720: Culminating Project

To meet graduation requirements, students must demonstrate their knowledge, skill, and competence in public health through an integrative learning experience that includes the conduct of a culminating project. Students are encouraged to complete the culminating project as part of their practicum experience, but they may also complete this course as an independent study. The products of the culminating project include a project proposal, an oral presentation, and a final written report.

Credits 4.0

Prerequisites

All required core and concentration courses

PUBHG 725: Public Health Culminating Project

To meet graduation requirements, students must demonstrate their knowledge, skill, and competence in public health through an integrative learning experience that includes the conduct of a culminating project. Students are encouraged to complete the culminating project as part of their practicum experience, but they may also complete this course as an independent study. The products of the culminating project include a project proposal, an oral presentation, and a final written report.

Credits 2.0

Prerequisites

All required core and concentration course

PUBHG 812: Occupational Health and Epidemiology

In this course students learn to apply epidemiologic methods/tools used in assessing occupational and environmental risk factors. Lectures, case studies, and exercises are integrated with the overall objective to teach various methodologic and analytic approaches to studying the relationship between occupational and environmental exposures and health outcomes.

Credits 2.0

PUBHG 814: Growing a Healthier Nation: Introduction to Public Health Nutrition

In this course, we will examine the building block concepts of public health nutrition, including nutrient requirements, interpretation of food labels, food assistance programs, and dietary guidelines and resources. We will also explore various U.S. nutrition monitoring tools and how they inform U.S. nutrition policy and programs. This course also reviews basic principles of nutrition epidemiology and introduces dietary assessment methodologies used in nutrition research. Students will also learn how to critically appraise the nutrition science literature to apply evidence-based approaches to disease prevention and health promotion. The overall objective is for students to obtain a foundational understanding of nutrition science, the promotion of health through nutrition, and the prevention of nutrition-related related disease in populations.

Credits 1.0

Master of Science in Precision Medicine

Mission

The Midwestern University College of Graduate Studies Master of Science in Precision Medicine is designed as an interdisciplinary professional dual degree in applied genomic sciences that aims to prepare healthcare professional students to utilize genomic information in the prediction, diagnosis, prognosis, prevention, and treatment of disease.

Upon program completion, students in the M.S. in Precision Medicine Program will have the foundational knowledge needed to:

1. Comprehend genomic and other 'omic data, describe how it is created and applied, and demonstrate basic analytical methods;
2. Determine what those data mean in practical terms for a patient's physical and mental health; and,
3. Utilize their knowledge to determine how that data can best be used to meet the medical needs of individual patients or populations.

The Program both complements and expands the mission of Midwestern University to meet the educational needs of the healthcare community by preparing students for the new era of genomic medicine. Students enrolled as dual degree candidates in Midwestern University's healthcare professional programs will expand their medical knowledge, understand genetic and genomic applications, and enhance their career options upon completion of this Program.

Accreditation

Midwestern University is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413.

Degree Description

The Master of Science (M.S.) in Precision Medicine Program is completed as a dual degree in conjunction with a healthcare professional degree, such as Doctor of Osteopathic Medicine, Doctor of Veterinary Medicine, Doctor of Dental Medicine, or Doctor of Optometry. Students completing other professional degrees at Midwestern University should contact the Precision Medicine Program Director prior to preparing an application. Osteopathic, Dental, and Optometry students may apply as incoming students or, with their Dean's approval, as first year

students. Veterinary students may apply in the first or second year of their program. In some cases, the Post-Graduate Certificate in Precision Medicine may integrate more appropriately with the primary programs that are not listed above. The coursework for the M.S. can be completed in as little as two years and is optimally completed within the timeframe of the primary degree program. The maximum time allowed for completion of the degree is six years.

Graduates are prepared to directly enter their chosen healthcare profession with the background to understand and apply genetic or genomic information in the overall care of their patients. The online, 46-quarter-credit hour Master's degree curriculum is designed to dovetail with select Midwestern healthcare professional programs, which allows dual-degree students to complete most requirements during the didactic years of their programs.

The Master's degree program includes 28 quarter-credit hours of required and elective coursework in Precision Medicine, including an applied genomic Capstone Project. Students must also complete relevant courses in their primary didactic programs, which upon satisfactory completion, will be applied as credit toward their secondary degree in Precision Medicine. Up to 18 hours of dual credit will be awarded from their primary degree programs for a total of 46 quarter-credit hours.

The Master of Science in Precision Medicine Program requires a culminating experience that includes a Genomics Laboratory and Capstone Project whereby students are provided an introduction to the analytical methods needed for a genomic evaluation of an anonymized human genome provided by the course instructors. Veterinary Medicine students may have the option of analyzing a companion animal's genome for this course. The genome sequence will be used to complete the Capstone Project, which will culminate in a written report of the findings and a formal presentation. Upon successful completion of the Capstone Project and other aspects of the Program, students will be awarded the Master of Science in Precision Medicine degree.

Admissions

Admission Requirements

To be considered for admission to the Master of Science in Precision Medicine degree program, applicants must submit the following documented evidence:

1. Acceptance to a Midwestern University primary degree program.
2. A minimum cumulative GPA of 2.75.
3. Official transcripts of all undergraduate coursework as well as graduate coursework if any was completed.
4. A completed Midwestern University application for the Precision Medicine Program.
5. For current Midwestern University students whose primary degree program has already started, a letter of support must be provided from the Dean for their primary degree. This letter is automatically requested by the online application system.
6. Passage of the Midwestern University criminal background check.

Application Process and Deadlines

To be considered for admission to the M.S. in Precision Medicine degree program, applicants must submit their applications online through the Midwestern University direct application process. The M.S. in Precision Medicine degree program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Program begins in the Summer Quarter. Admission to the Program is considered on a competitive basis for applicants submitting completed applications. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee determines would benefit the most from the Program based on their planned programs of study and professional goals.

Due to the nature of the Precision Medicine curriculum, students with prior graduate or undergraduate courses in Biochemistry, Molecular Biology, Genetics/Genomics, or Computer Science may receive preference for admission to the Program.

Selection decisions for the Program are determined by the CGS Precision Medicine Admissions Committee, which is comprised of faculty members and the Precision Medicine Program Director, with the approval of the Dean of the College of Graduate Studies. To maximize their competitiveness within this rolling admission process, candidates are advised to submit their completed applications early in the admission cycle. The deadline for applications is April 1 or the first business day thereafter.

Selection Process

After receiving completed application packets, the Midwestern University Office of Admissions verifies the information provided to determine whether all admissions requirements have been completed satisfactorily or will be completed prior to potential matriculation, and to verify the cumulative GPAs for all completed courses. Applicants are notified either electronically (i.e., through their admissions portal or by e-mail) or by letter of admissions decisions.

Please note that applicants may track the receipt of their application materials and the status of their files on the University's website using instructions for accessing account information sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address, or e-mail address. All requests for application withdrawals must be made in writing to the Office of Admissions:

Midwestern University Office of Admissions, 19555 N. 59th Avenue Glendale, AZ 85308;
admissaz@midwestern.edu; 888/247-9277 or 623/572-3215.

Midwestern University Office of Admissions, 555 31st Street Downers Grove, IL 60515;
admissil@midwestern.edu; 630/515-6171 or 800/458-6253.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the College.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control, and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record, and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt

completion of all responsibilities, and the development of mature, sensitive, and effective relationships. Candidate must be able to tolerate physically, mentally, and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that the candidate understands and is able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet the Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Satisfactory Academic Progress

Students must pass all required M.S. courses with a grade of "C" or higher and maintain a cumulative GPA of 2.50 or higher in the M.S. program. Regardless of satisfactory academic progress in the M.S. program, the CGS Student Promotion and Graduation Committee may determine that a dual degree student who experiences academic difficulty in the primary degree must take a leave from the M.S. program until satisfactory academic progress in the primary program is achieved. Separate criteria for achieving satisfactory academic progress in the primary degree program are listed in the catalog under the respective degree program.

Advanced Placement

The Master of Science in Precision Medicine Program allows the transfer of up to six quarter-credits (applicable only to core program courses) from recent (within the last five years) equivalent graduate-level coursework completed at other institutions prior to matriculation at Midwestern University. Generally, transfer credits would only be given to students who satisfactorily completed coursework with a minimum of a B grade from an accredited graduate degree program. Prior to matriculation, students must submit a letter of request and relevant course materials, including syllabi, to the Program Director. The Program Director will consult with the appropriate course director to evaluate the submitted course materials and determine whether the course is an appropriate substitute for one of the core Precision Medicine Program courses. If the request for transfer credits is denied, students may appeal this decision to the CGS Dean. If a course is accepted for credit, the equivalent Midwestern University course and the Advanced Placement notation will be recorded on the transcript along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on the transcript or used in the GPA calculation.

Transferring Between Program Tracks

Students wishing to transfer between the Master of Science and Post-Graduate certificate, or vice versa, must request the approval of the Program Director. These requests are granted at the discretion of the Program based on the circumstances and needs of individual students.

Students in primary programs that do not allow their students to initially apply to the Master of Science due to the primary program structure may be eligible to transfer from the Post-Graduate certificate to the Master of Science at a later time. Interested students should contact the Program Director to discuss this option.

Graduation Requirements

To qualify for the M.S. in Precision Medicine degree, students must:

1. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.5.
2. Satisfactorily complete the required minimum number of 46 credit hours in the curriculum (including documented dual degree credits).
3. Receive a favorable recommendation for Master's degree conferral from the CGS Student Promotion and Graduation Committee.
4. Receive a favorable recommendation for Master's degree conferral from the University Faculty Senate.
5. Settle all financial accounts with the University.
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Timeframe for Completion of Curriculum

The curriculum can be completed in as little as two years. It is expected that most students will complete their dual degree Master of Science in Precision Medicine within the timeframe of their primary degree program, which is typically 3 to 4 years. Students may exceed this timeframe if necessary, but must satisfactorily complete the full curriculum within six years of the starting date of their Precision Medicine Program in order to be awarded the degree.

Graduation

Master of Science degrees will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements for the degree. Degrees will be awarded at the commencement for the primary degree program if all requirements have been met at that time.

Curriculum (Students Entering Prior to Summer 2023)

Degree Type

Master of Science in Precision Medicine (M.S.)

The Midwestern University College of Graduate Studies M.S. in Precision Medicine degree program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter-credit hours required for Program completion is 46.

A typical curriculum, course credits, and course sequencing is shown below. Not all electives are offered every quarter. PMMSG 501-503 are typically completed in the first summer quarter of the program and PMMSG 601-605 are typically completed in the second Summer quarter. The remaining courses will primarily be completed in the fall through spring quarters.

Students entering the Precision Medicine Program prior to Summer 2023 and transferring from the Post-Graduate Certificate track to the Master of Science track may require curriculum adjustments depending on when the transfer occurred. These adjustments will be made in consultation with the Program Director.

Year 1

Summer Quarter

Course Code	Title	Credits
PMMSG 501	Introduction to Genetics and Genomics	2.0
PMMSG 502	Genomics of Rare and Complex Diseases	3.0
PMMSG 503	Introduction to Bioinformatics, Statistics, and Data Interpretation	3.0

Fall Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Winter Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Spring Quarter

Course Code	Title	Credits
PMMSG 504	'Omics and Biomarkers	3.0

Year 2

Summer Quarter

Course Code	Title	Credits
PMMSG 601	The Application of Precision Medicine to Cancer	3.0
PMMSG 602	Pharmacogenomics	2.0
PMMSG 603	Microbial Genetics, the Microbiome, and Infectious Diseases	3.0
PMMSG 604	Ethical, Legal, and Social Issues of Precision Medicine	1.0
PMMSG 605	Counseling and Communication Skills for Precision Medicine	1.0
	Precision Medicine Elective (1 credit)	1

Fall Quarter

Course Code	Title	Credits
PMMSG 606	Introduction to Personal Genomic Analysis, Genomics Laboratory, Part 1	1.0

Winter and Spring Quarters

Course Code	Title	Credits
PMMSG 607	Capstone Project, Genomics Laboratory Part 2	2.0

Winter or Spring Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Electives

Students complete four elective courses. Not all electives may be offered in every academic quarter.

Course Code	Title	Credits
PMMSG 801	Application of Precision Medicine to Inflammatory and Autoimmune Disease	1.0
PMMSG 802	The Application of Precision Medicine to Neurological Diseases	1.0
PMMSG 803	Application of Precision Medicine to Cardiovascular Diseases	1.0
PMMSG 804	Advanced Topics in Pharmacogenomics	1.0
PMMSG 805	A One Health Approach to Genomics and Precision Medicine	1.0
PMMSG 806	Epigenomics and Functional Genomics in Health and Disease	1.0
PMMSG 807	Genetic Technologies for the Treatment of Disease	1.0
PMMSG 808	Precision Medicine Journal Club	1.0
PMMSG 809	Understanding and Interpreting Direct-to-Consumer Genetic Testing	1.0
PMMSG 810	Independent Study	0.5-6
	Total Credits	37.5-43

Curriculum (Students Entering Summer 2023 and Later)

Degree Type

Master of Science in Precision Medicine (M.S.)

The Midwestern University College of Graduate Studies M.S. in Precision Medicine degree program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter-credit hours required for Program completion is 46.

A typical curriculum, course credits, and course sequencing is shown below. Not all electives are offered every quarter. PMMSG 501-503 are typically completed in the first summer quarter of the program and PMMSG 601-605 are typically completed in the second Summer quarter. The remaining courses will primarily be completed in the fall through spring quarters.

Year 1

Summer Quarter

Course Code	Title	Credits
PMMSG 501	Introduction to Genetics and Genomics	2.0
PMMSG 502	Genomics of Rare and Complex Diseases	3.0
PMMSG 503	Introduction to Bioinformatics, Statistics, and Data Interpretation	3.0

Fall Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Winter Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Spring Quarter

Course Code	Title	Credits
PMMSG 504	'Omics and Biomarkers	3.0

Year 2

Summer Quarter

Course Code	Title	Credits
PMMSG 601	The Application of Precision Medicine to Cancer	3.0
PMMSG 602	Pharmacogenomics	2.0
PMMSG 603	Microbial Genetics, the Microbiome, and Infectious Diseases	3.0
PMMSG 604	Ethical, Legal, and Social Issues of Precision Medicine	1.0
PMMSG 605	Counseling and Communication Skills for Precision Medicine	1.0
	Precision Medicine Elective (1 credit)	1

Fall Quarter

Course Code	Title	Credits
PMMSG 606	Introduction to Personal Genomic Analysis, Genomics Laboratory, Part 1	1.0

Winter and Spring Quarter

Course Code	Title	Credits
PMMSG 607	Capstone Project, Genomics Laboratory Part 2	2.0

Winter or Spring Quarter

Course Code	Title	Credits
	Precision Medicine Elective (1 credit)	1

Electives

Students complete four elective courses. Not all electives may be offered in every academic quarter.

Course Code	Title	Credits
PMMSG 801	Application of Precision Medicine to Inflammatory and Autoimmune Disease	1.0
PMMSG 802	The Application of Precision Medicine to Neurological Diseases	1.0
PMMSG 803	Application of Precision Medicine to Cardiovascular Diseases	1.0
PMMSG 804	Advanced Topics in Pharmacogenomics	1.0
PMMSG 805	A One Health Approach to Genomics and Precision Medicine	1.0
PMMSG 806	Epigenomics and Functional Genomics in Health and Disease	1.0
PMMSG 807	Genetic Technologies for the Treatment of Disease	1.0
PMMSG 808	Precision Medicine Journal Club	1.0
PMMSG 809	Understanding and Interpreting Direct-to-Consumer Genetic Testing	1.0
PMMSG 810	Independent Study	0.5-6
	Total Credits	37.5-43

Dual Credit Courses from Professional Programs

(up to 18 dual credits allowed)

Students enrolled in a dual degree program at Northwestern University may be awarded up to 18 quarter-credit hours towards the M.S. degree for approved courses completed satisfactorily in their professional primary degree programs. These courses are preapproved by the Precision Medicine Program Director with input from respective professional program advisors, and courses are identified in the University Catalog as eligible for dual credit in the M.S. in Precision Medicine Program. The following are examples of courses from primary degree programs (e.g., Doctor of Osteopathic Medicine) that are eligible for full or partial dual credit for the purposes of the dual degree M.S. in Precision Medicine. A credit amount followed by * indicates the amount of partial dual credit allowed for the course. The awarding of only partial credit is due to the presence of some content within the course that is not closely related to Precision Medicine topics, or which substantially duplicates Precision Medicine coursework.

Chicago College of Osteopathic Medicine

BIOCD 1501 Biochemistry I

5.0 credits

BIOCD 1502 Biochemistry II

3.0 credits*

PHYSD 1501 Physiology I

4.0 credits

PHYSD 1502 Physiology II

5.5 credits

MICRD 1652 Infectious Disease, Etiologic Agents, and the Immune Response I

8.0 credits

MICRD 1653 Infectious Disease, Etiologic Agents, and the Immune Response II

5.0 credits

PATHD 1601 Pathology I

5.0 credits

PATHD 1602 Pathology II

6.0 credits

PATHD 1603 Pathology III

4.5 credits

PHARD 1670 Pharmacology I

5.0 credits

PHARD 1671 Pharmacology II

3.0 credits

PHARD 1672 Pharmacology III

2.0 credits

Arizona College of Osteopathic Medicine

BIOCG 1511 Biochemistry I

5.0 credits*

BIOCG 1522 Biochemistry II

2.0 credits*

PHYSG 1521 Physiology I

5.0 credits

PHYSG 1532 Physiology II

4.5 credits

MICRG 1531 Immunology

2.5 credits

MICRG 1615 Microbiology I

4.0 credits

MICRG 1625 Microbiology II

4.0 credits

PATHG 1611 Pathology I

5.0 credits

PATHG 1622 Pathology II

5.0 credits

PATHG 1633 Pathology III

5.0 credits

PHARG 1610 Pharmacology I

3.5 credits

PHARG 1620 Pharmacology II

3.5 credits

PHARG 1630 Pharmacology III

3.0 credits

College of Veterinary Medicine

MICRG 1522 Veterinary Immunology

3.0 credits

MICRG 1671 Veterinary Microbiology I

4.0 credits

MICRG 1672 Veterinary Microbiology II

3.0 credits

MICRG 1673 Veterinary Parasitology

3.0 credits

PHARG 1660 Veterinary Pharmacology I
3.0 credits

PHARG 1661 Veterinary Pharmacology II
3.0 credits

PHYSG 1512 Veterinary Physiology I
3.0 credits

PHYSG 1522 Veterinary Physiology II
2.0 credits

PHYSG 1533 Veterinary Physiology III
4.0 credits

VMEDG 1641 Veterinary Pathology I
5.0 credits

VMEDG 1642 Veterinary Pathology II
5.0 credits

VMEDG 1645 Clinical Pathology
4.0 credits

Arizona College of Dental Medicine

BASIG 1501 Integrated Basic Science Sequence I
4.0 credits

BASIG 1502 Integrated Basic Science Sequence II
3.0 credit*

BASIG 1503 Integrated Basic Science Sequence III
4.5 credits

BASIG 1505 Integrated Basic Science Sequence V
4.5 credits

BASIG 1506 Integrated Basic Science Sequence VI
2.5 credits*

PHARG 1601 General Pharmacology I
2.0 credits

PHARG 1621 General Pharmacology II
3.0 credits

Illinois College of Dental Medicine

IBSSD 1520 Molecular, Cellular and Tissue Structure and Function
5.0 credits

IBSSD 1521 Clinical Neuroscience for Dental Students
2.5. credits*

IBSSD 1522 Blood, Lymphoid Tissue and Immunology
4.0 credits

IBSSD 1530 Essential of Infectious Disease, Integument and Lymphoreticular Systems
3.0 credits

IBSSD 1534 Cardiovascular and Respiratory Systems
3.0 credits*

IBSSD 1535 Gastrointestinal System
2.0 credits*

PHARD 1620 General Pharmacology I
2.0 credits

PHARD 1630 General Pharmacology II
3.0 credits

Arizona College of Optometry

BASIG 1510 Integrated Basic Science Sequence I
4.0 credits

BASIG 1511 Integrated Basic Science Sequence II
3.0 credits*

BASIG 1512 Integrated Basic Science Sequence III
4.5 credits

BASIG 1514 Integrated Basic Science Sequence V
4.5 credits

BASIG 1515 Integrated Basic Science Sequence VI
2.5 credits*

PHARG 1602 General Pharmacology I
2.0 credits

PHARC 1623 General Pharmacology II
3.0 credits

Illinois College of Optometry

PATHD 1501 Pathology/Histology I
2.0 credits

PHYSD 1530 Human Physiology I
3.5 credits

MICRD 1590 Immunology
2.0 credits

PHYSD 1531 Human Physiology II
3.5 credits

BIOCD 1590 Biochemistry for Optometry

1.5 credits

MICRD 1582 Microbiology

1.5 credits

PATHD 1502 Pathology/Histology II

2.5 credits

PHARD 1641 Pharmacology I

3.0 credits

PHARD 1642 Pharmacology II

2.0 credits

Illinois College of Pharmacy

BIOCD 1556 Biochemistry I

2.5 credits

PHYSD 1524 Human Physiology I

3.5 credits

BIOCD 1557 Biochemistry II

3.5 credits

MICRD 1521 Introduction to Immunology and Biologics 2 credits MICRD 1620 Infectious Diseases and Their Etiological Agents

3 credits

PHYSD 1525 Human Physiology II

3.5 credits

PSCID 1384 Advanced Topics in Pharmacogenomics

2 credits

Arizona College of Pharmacy

BIOCG 1551 Biochemistry

3 credits

PHYSG 1501 Human Physiology I

3 credits

MICRG 1553 Immunology

3 credits

PHYSG 1502 Human Physiology II

3 credits

BIOCG 1552 Molecular Biology and Human Genetics

2 credits

MICRG 1513 Microbiology

3 credits

PSCIG 1358 Pharmacogenomics

1.5 credits

PHIDG 1609 Integrated Sequence 9

3.5 credits

PHIDG 1608 Integrated Sequence 8

6.0 credits

PPRAG 1665 Ethical Decision Making

2.0 credits

PPRAG 1672 Research Methods

3.0 credits

PPRAG 1440 Advanced Research Methods: Using Analytics in Healthcare Research

1.5 credits

Illinois Physician Assistant Program

ANATD 0500 Human Gross Anatomy and Embryology

7.0 credits

BIOCD 0551 Human Biochemistry

3.0 credits

BIOCD 0552 Clinical Biochemistry and Nutrition

3.0 credits

ANATD 0565 Human Neurosciences

4.0 credits

PHARD 0584 Pharmacology I

3.0 credits

PHYSD 0510 Human Physiology I

3.5 credits

MICRD 0576 Immunology

2.0 credits

PHARD 0585 Pharmacology II

3.0 credits

PHYSD 0511 Human Physiology II

3.5 credits

BIOCD 0581 Human Genetics

1.0 credit

MICRD 0582 Infectious Diseases
4.0 credits

PHARD 0586 Pharmacology III
3.0 credits

Arizona Physician Assistant Program

ANATG 1553 Human Anatomy and Embryology (with Gross Anatomy Lab)
7.0 credits

BIOCG 551 Human Biochemistry
4.0 credits

PASSG 568 Medical Ethics, Epidemiology & Evidence-Based Medicine
2.0 credits

PHARG 566 Pharmacology and Pharmacotherapeutics I
3.0 credits

PHYSG 1575 Human Physiology I
4.0 credits

MICRG 570 Microbiology
3.0 credits

PHARG 570 Pharmacology and Pharmacotherapeutics II
3.0 credits

PHYSG 1586 Human Physiology II
4.0 credits

PHARG 580 Pharmacology and Pharmacotherapeutics III
3.0 credits

Faculty

Garilyn Jentarra, Ph.D., Program Director

Arizona State University
Associate Professor

Kolla Kristjansdottir, Ph.D., Associate Program Director

Duke University
Duke University Medical Center
Associate Professor

Hilal Arnouk, M.D., Ph.D.

The State University of New York at Buffalo
Associate Professor

Nancy Bae, Ph.D.

University of Maryland at College Park/National
Institutes of Health
Associate Professor

Bryan Bjork, Ph.D.

University of Iowa
Associate Professor

Thomas Bodenshtein, Ph.D.

University of Alabama at Birmingham
Associate Professor

Kelly Bontempo, M.S., C.G.C.

Northwestern University
Adjunct Faculty

Kimberly Bussey, Ph.D.

Oregon Health Sciences University
Assistant Professor

Ying He, Ph.D.

University of Illinois
Assistant Professor

Jose Hernandez, Ph.D.

University of Zaragoza, Spain
Professor and Chair

Sam Katzif, Ph.D.

Georgia State University
Associate Professor

Lisa Kronstad, Ph.D.

University of California, Berkeley
Assistant Professor

Kathryn Leyva, Ph.D.

Northern Arizona University
Professor and Chair

Rafael Mejia-Alvarez, M.D., Ph.D.

Universidad Nacional Autónoma de México School of
Medicine, Mexico
Baylor College of Medicine
Professor

Sandhya Noronha, M.D.

University of Illinois at Chicago
College of Medicine
Professor

Megan Roy-Puckelwartz, Ph.D.

University of Chicago
Adjunct Faculty

Yvonne Stevens, LL.M.

Arizona State University
Adjunct Faculty

Mark Swanson, Ph.D.

Stony Brook University
Associate Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor

Julie A. Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Lab Manager and Instructor

Rosa Ventrella, Ph.D.

Northwestern University
Assistant Professor

Michael V. Volin, Ph.D.

The University of Chicago
Professor and Chair

Brian P. Wellensiek, Ph.D.

University of Arizona College of Medicine
Associate Professor

Courses

PMMSG 501: Introduction to Genetics and Genomics

This introductory course presents basic aspects of genetics, genomics, and molecular biology, including DNA variation and mutation. It also covers a range of common analytical techniques for nucleic acids and proteins. Important elements of chromosomal structure are explored as well as concepts related to genetic testing and gene therapy. Upon successful completion of this course, students will have the foundational knowledge necessary for understanding genomic and other 'omics concepts relevant to completing the remaining required core and elective courses.

Credits 2.0

PMMSG 502: Genomics of Rare and Complex Diseases

This course explores the genetic underpinnings of both monogenic and complex diseases. Dominant versus recessive autosomal diseases as well as X-linked, mitochondrial, and cytogenetic diseases are covered. Evolutionary and population genetics are discussed, and methods for studying complex diseases are introduced. Students completing this course will demonstrate a working knowledge of the genetics of monogenic and complex diseases, and an understanding of the relevant analytical methods.

Credits 3.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

PMMSG 503: Introduction to Bioinformatics, Statistics, and Data Interpretation

Obtaining patient 'omics data is a first step in precision medicine. Subsequent computational and analytical methods are required to decipher these data. This course focuses on the analysis of 'omics data sets using bioinformatics and statistical tools. Students are introduced to the use of open access software to analyze provided data sets and learn to interpret the results. The objective of this course is to provide students with the basic skills needed to work with and derive valuable information from complex data sets produced by 'omics analyses.

Credits 3.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 504: 'Omics and Biomarkers

This course builds on the use of genomics in medicine by extending knowledge into areas that complement genomics, such as transcriptomics, proteomics and metabolomics. Students explore how these 'omics fields can be used in biomarker discovery and health management. Upon successful completion of this course, students will be able to explain broadly what is meant by 'omics analyses, describe the technologies involved, and display a specific comprehension of the source and uses of the various biomarkers in medicine.

Credits 3.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 601: The Application of Precision Medicine to Cancer

This course explores genetic and other molecular mechanisms involved in cancer development and progression, including assessment of the genomes and transcriptomes of tumor cells as well as the patient's normal cells. Students examine how this knowledge translates into precision technologies for cancer screening, as well as diagnosing and treating cancer patients. Upon successful completion of this course, students will demonstrate an understanding of the genetic origins and development of cancer, the methods of assessing what is occurring in cancerous cells, and a basic understanding of how knowledge gained from analyses can be used to benefit patients.

Credits 3.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 602: Pharmacogenomics

This course presents the ways in which genomic information can be used to ensure that patients receive the greatest possible benefit from therapeutics while mitigating risk of adverse events. Students will explore how genetic variation may alter drug metabolism, disposition, and action, as well as discuss how doses may need to be tailored, or drugs altered to account for certain polymorphic differences. Students successfully completing this course will demonstrate a working knowledge of the interaction between a patient's genetic structure and the safety and efficacy of therapeutic drugs.

Credits 2.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 603: Microbial Genetics, the Microbiome, and Infectious Diseases

This course provides information on basic features of microbial genetics that are relevant to health. It covers what is known about the effects of an individual's microbiome on their health, the consequences of dysbiosis, and the effects of the microbiome on patient treatment, including metabolism of therapeutics. Methods for studying and assessing an individual's microbiome, or microbiome features of various subject groups are discussed. This course also explores the role of 'omics information from both patients and infecting microbes in the identification, targeted treatment, and control of infectious diseases in individuals and on a population basis. After successful completion of this course, students will be able to demonstrate a basic knowledge of health-relevant microbial genetics, will be able to describe the role of the microbiome in health, and will comprehend the usefulness of 'omics technologies in the management of infectious diseases.

Credits 3.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 604: Ethical, Legal, and Social Issues of Precision Medicine

This course examines the ethical and legal issues surrounding the use of precision medicine technology, and particularly the potential misuse of genomic information, privacy, ownership of genetic information, open versus informed consent, and accessibility. It also addresses social issues that have developed or may develop in the future as a result of these types of genomic knowledge. Upon successful completion of this course, students will be able to describe existing and potential future ethical, legal, and social issues surrounding the use of precision medicine technologies.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1501: Biochemistry I](#)

PMMSG 605: Counseling and Communication Skills for Precision Medicine

This course considers how to effectively communicate genomic or other 'omics information to patients. Students learn how to tailor complex genomic discussions to a lay audience, become aware of how the information provided may be viewed by patients or their families, and consider how to counsel them about this information to enable patient-centric, optimal health decisions. Upon successful completion of this course, students will demonstrate familiarity with both the sensitive issues that arise when using precision medicine technologies and with methods that can be used for effectively communicating that information to patients and their families.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 606: Introduction to Personal Genomic Analysis, Genomics Laboratory, Part 1

This course introduces students to the analytical methods needed for a genetic evaluation of an anonymized human genome provided by the instructors. This genome analysis knowledge is ultimately used to complete a Capstone Project (PMMSG 607). The objective of this course is for students to become familiar with the format in which a sequenced genome is provided and demonstrate the ability to use publicly available software to manipulate that genome sequence and search for the presence of health-related genetic variants.

Credits 1.0

Prerequisites

[PMMSG 501](#), 502, and 503

PMMSG 607: Capstone Project, Genomics Laboratory Part 2

In this course, students use the knowledge and skills acquired in previous required courses, particularly in [PMMSG 606](#), to make a health-focused assessment of an anonymized human genome provided to them by the instructors. Students concentrate on identifying gene variants associated directly with genetic diseases or with increased risk for diseases, and evaluating the consequences of those gene variants. This course culminates in a written report of the findings and a formal presentation. The objective of this course is for students to demonstrate competence in basic genome analysis and assessment of genetic risk alleles.

Credits 2.0

Prerequisites

[PMMSG 606: Introduction to Personal Genomic Analysis, Genomics Laboratory, Part 1](#)

PMMSG 801: Application of Precision Medicine to Inflammatory and Autoimmune Disease

This course explores genetic/genomic influences on the development of autoimmune diseases and other diseases with inflammatory components. Students discuss the use of biomarker studies for both increasing the accuracy of diagnosis and for identifying proteins and metabolites that may provide insight into the causes of these disorders. Students successfully completing this course will be able to demonstrate an understanding of the genetic underpinnings of inflammatory and autoimmune diseases and be able to explain how biomarker studies can be used to improve patient outcomes.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 802: The Application of Precision Medicine to Neurological Diseases

This course examines the genetic underpinnings of common neurological disorders, neurogenetic disorders, and neurodegenerative diseases. Students study how genomics can be used to identify genes that are directly involved in neurological disorders or that confer significant risk of developing a disorder. Students discuss how that information is used for diagnosis, prognosis, and development of novel therapeutics. Upon successful completion of the course, students will be able to explain the role that gene variants and mutations play in the development of neurological diseases and describe how that information can be used to support effective patient treatment and care.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 803: Application of Precision Medicine to Cardiovascular Diseases

This course covers polymorphisms related to cardiovascular disease, including genes that contribute to the development of heart disease, atherosclerosis, and stroke. Students review how these genetic risk factors were identified and linked to cardiovascular disease. They also learn about the interplay of lifestyle factors with genetic risk factors in the development of cardiovascular disease. Students completing this course will demonstrate an understanding of gene variants involved in increasing the risk of cardiovascular disease and be able to describe the role that lifestyle choices play in development of cardiovascular disease.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 804: Advanced Topics in Pharmacogenomics

This advanced topics course provides an in-depth knowledge of the clinical applications of pharmacogenomics. Students deepen their understanding of how genetic differences impact drug therapy. Students view recorded lectures presented by experts on disease-specific topics and also read assigned papers relevant to those topics. Assessment is based on completion of worksheets. Upon successful completion of this course, students will demonstrate a broad understanding of the current and potential clinical applications of pharmacogenomics.

Credits 1.0

Prerequisites

[PMMSG 501](#), 502; [PMMSG 602](#)

PMMSG 805: A One Health Approach to Genomics and Precision Medicine

This course focuses on how knowledge of the genomics, health, and environment of one species can be used to effectively develop targeted treatments for other species. It addresses the global interrelatedness of the health of all species and how One Health-based studies can help to develop solutions for human and animal health issues and inform public policy. Students successfully completing this course will be able to describe the uses and practicality of the One Health approach to supporting animal and human health, as well as the health of the environment.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 806: Epigenomics and Functional Genomics in Health and Disease

This course examines the importance of gene expression alterations on the health of individuals and populations. Topics include the mechanisms controlling gene expression, such as epigenetics, variation, and three-dimensional nuclear structure, and how these changes contribute to complex disease. Students also examine how advances in these areas can be used to improve health. Upon successful completion of this course, students will be able to demonstrate knowledge of the role that gene expression changes play in health and disease, as well as being able to describe the factors that influence gene expression.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 807: Genetic Technologies for the Treatment of Disease

This course explores methods available for manipulation of genomes to treat genetic diseases or to prevent the development of diseases. It addresses the various techniques for conducting gene therapy and editing, and the mechanisms by which they work. Students examine the health risks and ethical issues associated with these technologies. Upon successful completion of this course, students will demonstrate knowledge of the current technologies used for modifications of the genome, and be able to describe both the benefits and the intended and unintended consequences of these technologies.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 808: Precision Medicine Journal Club

This course engages students in surveys and in-depth evaluations of the precision medicine scientific literature. Seminal papers in the development of 'omic and precision medicine technologies, as well as recent publications, are critically reviewed. The objective of this course is to provide students with an understanding of how the various 'omics fields developed and to assist them with learning to evaluate and properly understand scientific literature.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1501: Biochemistry I](#)

PMMSG 809: Understanding and Interpreting Direct-to-Consumer Genetic Testing

Direct-to-consumer genetic testing is in widespread use for both tracing ancestry and for identification of disease risk alleles. The purpose of this course is to help students understand the various types of tests available and recognize what types of information they provide. Students will learn how to assist their patients in interpreting and applying the results of risk allele testing to achieve better health outcomes. Upon successful completion of this course, students will understand the various formats in which direct-to-consumer genetic testing results are provided, will be able to describe how to appropriately evaluate the information provided, and will be able to help the patient make decisions or find resources that will help them make the best use of the genetic information they receive.

Credits 1.0

Prerequisites

[PMMSG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMMSG 810: Independent Study

This independent study course is designed to provide students the opportunity to explore topics of didactic and/or clinical interest as needed to enhance the student's learning.

Credits 0.5-6

Prerequisites

Permission of the Instructor

Post-Graduate Certificate in Precision Medicine

Mission

The Midwestern University College of Graduate Studies Post-Graduate Certificate (PGCert) in Precision Medicine Program is designed as an interdisciplinary professional certificate in applied genomic sciences that aims to prepare healthcare professional students and practicing healthcare professionals to utilize genomic information in the prediction, diagnosis, prognosis, prevention, and treatment of disease.

Upon completion, students in the Post-Graduate Certificate in Precision Medicine Program will have the foundational knowledge needed to:

1. Comprehend genomic and other 'omic data, describe how it is created and applied, and demonstrate basic analytical methods;

2. Determine what those data mean in practical terms for a patient's physical and mental health, and;
3. Utilize their knowledge to determine how that data can best be used to meet the medical needs of individual patients or populations.

The Program both complements and expands the mission of Northwestern University to meet the educational needs of the healthcare community by preparing students for the new era of applied genomics in medicine. Dual track Post-Graduate Certificate candidates will complete their certificate in conjunction with another Northwestern University healthcare professional program.

Students enrolled in the Post-Graduate Certificate in Precision Medicine Program will enhance their medical knowledge, understand genetic and genomic applications, and expand their career options upon completion of the Program.

Accreditation

Northwestern University is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413.

Degree Description

Dual Track Post-Graduate Certificate in Precision Medicine

The Post-Graduate Certificate in Precision Medicine can be completed as a dual track program in conjunction with another Northwestern University healthcare professional degrees such as Doctor of Osteopathic Medicine, Doctor of Veterinary Medicine, Doctor of Dental Medicine, Doctor of Optometry, or Doctor of Pharmacy.

Students enrolled in Podiatric Medicine, Physician Assistant, or other Northwestern University degree programs not listed above may apply for this dual track program with the approval of their Dean. Pharmacy, Podiatry, and Veterinary students cannot apply as incoming students but are eligible to apply during the first or subsequent years of their primary program.

Stand-Alone Post-Graduate Certificate in Precision Medicine

The stand-alone Post-Graduate Certificate in Precision Medicine is available for individuals NOT currently admitted to, or enrolled in, another Northwestern University healthcare program. Applicants to the stand-alone Post-Graduate Certificate must already have been awarded or will be awarded a graduate-level healthcare or graduate level biomedical/biological degree from an accredited university prior to matriculation into the program.

Preparation of Graduates

Graduates are prepared to directly enter their chosen healthcare profession with the background to understand and apply genetic or genomic information in the overall care of their patients. This online, 22 quarter-credit hour curriculum is taught at a graduate level and designed to complement healthcare professional programs and careers.

The coursework can be completed in as little as two years and is optimally completed within the timeframe of the primary program. The maximum time allowed for completion of the dual track or stand-alone certificate is six years.

The 22 quarter-credit hour PGCert in Precision Medicine Program includes required and elective coursework. Some students may desire to transfer from this track to the Master of Science in Precision Medicine degree track.

Interested students should contact the Precision Medicine Program Director. Additional coursework and completion of the Genomics Laboratory and Capstone Project will be required (see Master of Science in Precision Medicine Program).

Admissions

Admissions Requirements for Dual Track Applicants

To be considered for admission to the Post-Graduate Certificate in Precision Medicine Program, applicants must submit the following documented evidence:

1. A minimum cumulative GPA of 2.75, and acceptance to a Midwestern University primary degree program.
2. A completed Midwestern University application for the Precision Medicine Program.
3. For current Midwestern University students whose primary degree program has already started, a letter of support must be provided from the Dean for their primary degree. This letter is automatically requested by the online application system.
4. Passage of the Midwestern University criminal background check.

Admission Requirements for Stand Alone Applicants

To be considered for admission to the PGCert in Precision Medicine Program, applicants must submit the following documented evidence:

1. A minimum cumulative GPA of 2.75.
2. A graduate level healthcare or biomedical/biological sciences degree from an accredited institution (if not already awarded, must be completed prior to matriculation).
3. A completed Midwestern University application for the Precision Medicine Program.
4. Passage of the Midwestern University criminal background check.

Application Process and Deadlines

To be considered for admission to the PGCert in Precision Medicine Program, applicants must submit their applications online through the Midwestern University direct application process.

The PGCert in Precision Medicine program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Program begins in the summer quarter. Admission to the Program is considered on a competitive basis for applicants submitting completed applications. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee determines would benefit the most from the Program based on their planned programs of study and/or professional goals.

Due to the nature of the Precision Medicine curriculum, students with prior graduate or undergraduate courses in Biochemistry, Molecular Biology, Computer Science, Genetics, and Genomics will receive preference for admission to the Program.

Selection decisions for the Program are determined by the CGS Precision Medicine Admissions Committee, which is comprised of faculty members and the Precision Medicine Program Director, with the approval of the Dean of the College of Graduate Studies. To maximize their competitiveness within this rolling admission process, candidates are advised to submit their completed applications early in the admission cycle. The deadline for dual track applications is April 1 or the first business day thereafter. The deadline for stand-alone applicants is April 15 or the first business day thereafter.

Selection Process

After receiving completed application packets, the Midwestern University Office of Admissions verifies the information provided to determine whether all admissions requirements have been completed satisfactorily or will be completed prior to potential matriculation and to verify the cumulative GPAs for all completed courses. Applicants are notified either electronically (i.e., through their admissions portal or by e-mail) or by letter of admissions decisions. Please note that applicants may track the receipt of their application materials and the status of their files on the University's website using instructions for accessing account information sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address, or e-mail address. All requests for application withdrawals must be made in writing to the Office of Admissions:

Midwestern University Office of Admissions,
19555 N. 59th Avenue Glendale, AZ 85308;
admissaz@midwestern.edu;
888/247-9277 or 623/572-3215.

Midwestern University Office of Admissions,
555 31st Street Downers Grove, IL 60515;
admissil@midwestern.edu;
630/515-6171 or 800/458-6253.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the College.

Candidates must be able to perform the following abilities and skills:

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control, and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record, and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive, and effective relationships. Candidates must be able to tolerate physically, mentally, and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify that the candidate understands and is able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Satisfactory Academic Progress

Students must pass all required Certificate courses with a grade of "C" or higher and maintain a cumulative GPA of 2.50 or higher in the Certificate program. For dual track students, regardless of satisfactory academic progress in the Certificate program, the CGS Student Promotion and Graduation Committee may determine that a dual track student who experiences academic difficulty in the primary degree must take a leave from the Certificate program until satisfactory academic progress in the primary program is achieved. Separate criteria for achieving satisfactory academic progress in the primary degree program are listed in the catalog under the respective degree program.

Advanced Placement

The Post-Graduate Certificate in Precision Medicine Program allows the transfer of up to six quarter-credits (applicable only to core program courses) from recent (within the last five years) equivalent graduate-level coursework completed at other institutions prior to matriculation at Northwestern University. Generally, transfer credits would only be given to students who satisfactorily completed course-work with a minimum of a B grade from an accredited graduate degree program. Prior to matriculation, students must submit a letter of request and relevant course materials, including syllabi, to the Program Director. The Program Director will consult with the appropriate course director to evaluate the submitted course materials and determine whether the course is an appropriate substitute for one of the core Precision Medicine Program courses. If the request for transfer credits is denied, students may appeal this decision to the CGS Dean. If a course is accepted for credit, the equivalent Northwestern University course and the Advanced Placement notation will be recorded on the transcript along with the name of the institution at which the credit was earned. Any earned letter grade will not be included on the transcript or used in the GPA calculation.

Transferring Between Program Tracks

Students wishing to transfer between the Master of Science and Post-Graduate certificate, or vice versa, must request the approval of the Program Director. These requests are granted at the discretion of the Program Director based on the circumstances and needs of individual students.

Students in primary programs that do not allow their students to initially apply to the Master of Science due to the primary program structure may be eligible to transfer from the Post-Graduate certificate to the Master of Science at a later time. Interested students should contact the Program Director to discuss this option.

Graduation Requirements

To be awarded the Post-Graduate Certificate in Precision Medicine, students must:

1. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.5.
2. Satisfactorily complete the required minimum number of 22 credit hours in the curriculum.
3. Receive a favorable recommendation for Post-Graduate Certificate conferral from the CGS Student Promotion and Graduation Committee.
4. Receive a favorable recommendation for Post-Graduate Certificate conferral from the University Faculty Senate.
5. Settle all financial accounts with the University.
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Post-Graduate Certificates will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements for the relevant Post-Graduate Certificate Program.

Post-Graduate Certificates earned through the dual track program will be awarded at the commencement for the primary degree program if all requirements have been met at that time.

Timeframe for Completion of Curriculum

The curriculum can be completed in as little as two years. Dual track students in the Post-Graduate Certificate Program must satisfactorily complete the full curriculum within six years of the starting date of their Precision Medicine Program in order to be awarded the Certificate.

Curriculum (Students Entering Prior to Summer 2022)

Degree Type

Post-Graduate Certificate in Precision Medicine

The Midwestern University College of Graduate Studies PGCert in Precision Medicine Program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter-credit hours required for Program completion is 22.

A typical curriculum, course credits, and course sequencing is shown below. Not all electives are offered every quarter.

Year 1

Summer Quarter

Course Code	Title	Credits
PMGCC 501	Introduction to Genetics and Genomics	2.0

Fall Quarter

Course Code	Title	Credits
PMGCC 502	Genomics of Rare and Complex Diseases	3.0

Winter Quarter

Course Code	Title	Credits
PMGCC 503	Introduction to Bioinformatics, Statistics, and Data Interpretation	2.0

Spring Quarter

Course Code	Title	Credits
PMGCC 504	'Omics and Biomarkers	3.0

Year 2

Summer Quarter

Course Code	Title	Credits
PMGCG 601	The Application of Precision Medicine to Cancer	3.0

Fall Quarter

Course Code	Title	Credits
PMGCG 602	Pharmacogenomics	2.0

Winter Quarter

Course Code	Title	Credits
PMGCG 603	Microbial Genetics, the Microbiome, and Infectious Diseases	3.0
	Precision Medicine Elective (1 credit)	1

Spring Quarter

Course Code	Title	Credits
PMGCG 604	Ethical Legal and Social Issues of Precision Medicine	1.0
PMGCG 605	Counseling and Communication skills for Precision Medicine	1.0
	Precision Medicine Elective (1 credit)	1

Electives

Students complete three elective courses. Not all electives may be offered in every academic quarter.

Course Code	Title	Credits
PMGCG 801	Application of Precision Medicine to Inflammatory and Autoimmune Disease	1.0
PMGCG 802	The Application of Precision Medicine to Neurological Diseases	1.0
PMGCG 803	Application of Precision Medicine to Cardiovascular Diseases	1.0
PMGCG 804	Advanced Topics in Pharmacogenomics	1.0
PMGCG 805	A One Health Approach to Genomics and Precision Medicine	1.0
PMGCG 806	Epigenomics and Functional Genomics in Health and Disease	1.0
PMGCG 807	Genetic Technologies for the Treatment of Disease	1.0
PMGCG 808	Precision Medicine Journal Club	1.0
PMGCG 809	Understanding and Interpreting Direct-to-Consumer Genetic Testing	1.0
PMGCG 810	Independent Study	0.5-6
	Total Credits	25

Curriculum (Students Entering Summer 2022 and Later)

Degree Type

Post-Graduate Certificate in Precision Medicine

The Midwestern University College of Graduate Studies PG Cert in Precision Medicine Program reserves the right to alter its curriculum however and whenever it deems appropriate. This Catalog does not establish a contractual relationship between Midwestern University and students. Total quarter-credit hours required for Program completion is 22.

A typical curriculum, course credits, and course sequencing is shown below. Not all electives are offered every quarter.

Year 1

Summer Quarter

Course Code	Title	Credits
PMGCG 501	Introduction to Genetics and Genomics	2.0

Fall Quarter

Course Code	Title	Credits
PMGCG 502	Genomics of Rare and Complex Diseases	3.0

Winter Quarter

Course Code	Title	Credits
PMGCG 503	Introduction to Bioinformatics, Statistics, and Data Interpretation	2.0

Spring Quarter

Course Code	Title	Credits
PMGCG 504	'Omics and Biomarkers	3.0

Year 2

Summer Quarter

Course Code	Title	Credits
PMGCG 601	The Application of Precision Medicine to Cancer	3.0

Fall Quarter

Course Code	Title	Credits
PMGCG 602	Pharmacogenomics	2.0

Winter Quarter

Course Code	Title	Credits
PMGCG 603	Microbial Genetics, the Microbiome, and Infectious Diseases	3.0

Spring Quarter

Course Code	Title	Credits
PMGCG 604	Ethical Legal and Social Issues of Precision Medicine	1.0
PMGCG 605	Counseling and Communication skills for Precision Medicine	1.0
	Precision Medicine Elective (1 credit)	1

Electives

Students complete two elective courses. Not all electives may be offered in every academic quarter.

Course Code	Title	Credits
PMGCG 801	Application of Precision Medicine to Inflammatory and Autoimmune Disease	1.0
PMGCG 802	The Application of Precision Medicine to Neurological Diseases	1.0
PMGCG 803	Application of Precision Medicine to Cardiovascular Diseases	1.0
PMGCG 804	Advanced Topics in Pharmacogenomics	1.0
PMGCG 805	A One Health Approach to Genomics and Precision Medicine	1.0
PMGCG 806	Epigenomics and Functional Genomics in Health and Disease	1.0
PMGCG 807	Genetic Technologies for the Treatment of Disease	1.0
PMGCG 808	Precision Medicine Journal Club	1.0
PMGCG 809	Understanding and Interpreting Direct-to-Consumer Genetic Testing	1.0
PMGCG 810	Independent Study	0.5-6
	Total Credits	23

Faculty

Precision Medicine Program

Garilyn Jentarra, Ph.D., Program Director

Arizona State University
Associate Professor

Kolla Kristjansdottir, Ph.D., Associate Program Director

Duke University
Duke University Medical Center
Associate Professor

Hilal Arnouk, M.D., Ph.D.

The State University of New York at Buffalo
Associate Professor

Nancy Bae, Ph.D.

University of Maryland at College Park/National
Institutes of Health
Associate Professor

Bryan Bjork, Ph.D.

University of Iowa
Associate Professor

Thomas Bodenstine, Ph.D.

University of Alabama at Birmingham
Associate Professor

Kelly Bontempo, M.S., C.G.C.

Northwestern University
Adjunct Faculty

Kimberly Bussey, Ph.D.

Oregon Health Sciences University
Assistant Professor

Ying He, Ph.D.

University of Illinois
Assistant Professor

Jose Hernandez, Ph.D.

University of Zaragoza, Spain
Professor and Chair

Sam Katzif, Ph.D.

Georgia State University
Associate Professor

Lisa Kronstad, Ph.D.

University of California , Berkeley
Assistant Professor

Kathryn Leyva, Ph.D.

Northern Arizona University
Professor and Chair

Rafael Mejia-Alvarez, M.D., Ph.D.

Universidad Nacional Autónoma de México School of
Medicine, Mexico
Baylor College of Medicine
Professor

Sandhya Noronha, M.D.

University of Illinois at Chicago
College of Medicine
Professor

Megan Roy-Puckelwartz, Ph.D.

University of Chicago
Adjunct Faculty

Yvonne Stevens, LL.M.

Arizona State University
Adjunct Faculty

Mark Swanson, Ph.D.

Stony Brook University
Assistant Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor

Julie A. Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Lab Manager and Instructor

Rosa Ventrella, Ph.D.

Northwestern University
Assistant Professor

Michael V. Volin, Ph.D.

The University of Chicago
Professor and Chair

Brian P. Wellensiek, Ph.D.

University of Arizona College of Medicine
Associate Professor

**CGS General Faculty
Administrative Faculty**

Yir Gloria Yueh, Ph.D.

University of Connecticut
Vice President and Chief Academic Officer
Colleges of Osteopathic Medicine, Graduate Studies
and Podiatric Medicine
Professor

Michael J. Fay, Ph.D.

University of Mississippi
Dean, College of Graduate Studies
Professor

Sandra Inouye, Ph.D.

Northwestern University
Associate Dean of Academic Affairs, College of
Graduate Studies
Director of Anatomical Laboratories and Body Donation
Program
Professor

**Department of Anatomy
Arizona**

Wade Grow, Ph.D., Chair

University of Idaho
Professor

Karen Baab, Ph.D.

City University of New York
Associate Professor

Justin Georgi, Ph.D.

Stony Brook University
Professor

Aryeh Grossman, Ph.D.

Stony Brook University
Professor

Margaret Hall, Ph.D.

Stony Brook University
Professor Christopher

Heesy, Ph.D.

Stony Brook University
Professor

Bucky Jones, Ph.D.

The Ohio State University
Professor

Jason Kaufman, Ph.D.

Washington University, St. Louis
Professor

Andrew Lee, Ph.D.

University of California, Berkley
Professor

Leigha Lynch, Ph.D.

Oklahoma State University Center for Health Sciences
Assistant
Professor

Greg Mihailoff, Ph.D.

The Ohio State University
Professor Emeritus

Kathleen Muldoon, Ph.D.

Washington University, St. Louis
Professor

Randall L. Nydam, Ph.D.

University of Oklahoma
Associate Dean of Academic Affairs
Arizona College of Osteopathic Medicine
Professor

Matthew O'Neill, Ph.D.

Johns Hopkins University
Assistant Professor

Jose Rodriguez Sosa, M.V.Z., Ph.D.

University of Guelph
Associate Professor

Erin Simons, Ph.D.

Ohio University
Professor Heather Smith, Ph.D.
Arizona State University
Professor

Kathryn Townsend, Ph.D.

Washington University, St. Louis
Professor

Carrie Veilleux, Ph.D.

University of Texas, Austin
Assistant Professor

Linda Walters, Ph.D.

Loyola University, Stritch School of Medicine
Professor Emeritus

Illinois

Michele Fornaro, Ph.D., Chair

University of Turin, Italy
Professor

Timothy Campbell, Ph.D.

Texas A&M University College Station
Assistant Professor

Michael Ebeid, Ph.D.

Creighton University
Assistant Professor

Joanna Goral, Ph.D.

Loyola University Chicago
Professor

Eric Gorscak, Ph.D.

Ohio University
Assistant Professor

Samuel Gutherz, Ph.D.

Ohio University
Instructor

Ji Eun Kim, Ph.D.

University of Tennessee
Assistant Professor

Erin Leslie, Ph.D.

Northwestern University
Associate Professor

Vivian E. Noble

Johns Hopkins University
Adjunct Instructor

Terrence Ritzman, Ph.D.

Arizona State University
Assistant Professor

Erin Stephenson, Ph.D.

Royal Melbourne Institute of Technology, Australia
Assistant Professor

Maria Traka, Ph.D.

University of Crete, Greece
Assistant Professor

Department of Biochemistry and
Molecular Genetics
Arizona

Jose Hernandez, Ph.D., Chair

University of Zaragoza, Spain
Professor

Nancy Bae, Ph.D.

University of Maryland at College Park/National
Institutes of Health
Associate Professor

David Carroll, Ph.D.

University of Connecticut
Assistant Professor

Samantha Day, Ph.D.

Arizona State University
Assistant Professor

Thu Huynh, Ph.D.

New York University
Assistant Professor

Garilyn Jentarra, Ph.D., Program Director

Arizona State University
Program Director, Precision Medicine Program
Associate Professor

Chongwoo Kim, Ph.D.

Johns Hopkins University
Associate Professor

Kathryn Lawson, Ph.D.

University of Arizona
Associate Professor

Minsub Shim, Ph.D.

North Carolina State University
Associate Professor

Mark Swanson, Ph.D.

Stony Brook University
Assistant Professor

Illinois

Nalini Chandar, Ph.D., Chair

University of Madras, India
Professor

Bryan C. Bjork, Ph.D.

University of Iowa
Associate Professor

Thomas M. Bodenstine, Ph.D.

University of Alabama at Birmingham
Associate Professor

Renier Velez-Cruz, Ph.D.

Vanderbilt University School of Medicine Associate
Professor

Susan M. Viselli, Ph.D.

Pennsylvania State University
Professor

Department of Microbiology and Immunology Arizona

Kathryn Leyva, Ph.D., Chair

Northern Arizona University
Professor

Jeremy Ellermeier, Ph.D.

University of Illinois at Urbana/Champaign
Assistant Professor

Fernando Gonzalez, Ph.D.

University of Texas Southwestern Medical Center at
Dallas
Associate Professor

Nicholas Haley, D.V.M., Ph.D.

Colorado State University
Associate Professor

John A. Hnida, Ph.D.

University of New Mexico
Associate Professor

Sam Katzif, Ph.D.

Georgia State University
Associate Professor

Lisa Kronstad, Ph.D.

University of California, Berkeley
Assistant Professor

Adebayo J. Molehin, Ph.D.

The University of Queensland, Australia
Assistant Professor

Dhritiman Samanta, Ph.D.

The University of Southern Mississippi
Assistant Professor

Illinois

Michael V. Volin, Ph.D., Chair

The University of Chicago
Professor

Richard Laddaga, Ph.D.

McGill University, Canada
Professor

Balbina Plotkin, Ph.D.

University of Tennessee
Professor

Ira Sigar, Ph.D.

Illinois Institute of Technology
Associate Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor

Julie Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Lab Manager & Instructor

Vaibhav Tiwari, Ph.D.

Banaras Hindu University, India
Associate Professor

Department of Pathology Arizona

Tony Tulloh, M.D., Chair

Medical College of Georgia
Assistant Professor

Parveen Ranjan, Ph.D.

University of Delhi Medical School, New Delhi Assistant Professor

Joshua Routh, M.D.

University of Arizona
Assistant Professor

Illinois

John N. Kasimos, D.O., M.S., M.S.H.C.E., F.C.A.P., F.A.S.C.P., F.A.O.C.P., Chair

Midwestern University
Chicago College of Osteopathic Medicine
Professor

Hilal Arnouk, M.D., Ph.D.

The State University of New York at Buffalo
Associate Professor

Louis W. Gierke, D.O.

Midwestern University
Chicago College of Osteopathic Medicine
Professor Emeritus

Luigi Strizzi, M.D., Ph.D.

University of Chieti-Pescara, Italy
Associate Professor

**Department of Pharmacology
Arizona**

Pamela Potter, Ph.D., Chair

Dalhousie University
Professor

Gerald Call, Ph.D.

University of Kansas Medical Center
Professor

Douglas Jones, Ph.D.

University of Texas
Associate Professor

Laszlo Kerecsen, M.D.

Medical School of Debrecen
Professor

Shaleen Korch, Ph.D.

University of North Dakota
Associate Professor

Jeffrey Norris, D.V.M., Ph.D.

University of California-Davis
Associate Professor

Illinois

Phillip Kopf, Ph.D., Chair

University of New Mexico
Associate Professor

Joshua Edwards, Ph.D.

Michigan State University
Professor

Keith B. Glaser, Ph.D.

University of California at Santa Barbara
Adjunct Professor

Alejandro M. Mayer, Ph.D.

University of Buenos Aires, Argentina
Professor

Marsha Pierce, Ph.D.

Creighton University
Assistant Professor

Walter C. Prozialeck, Ph.D.

Thomas Jefferson University
Professor

Prasanth Puthanveetil, Ph.D.

University of British Columbia, Canada
Assistant Professor

Cai Roberts, Ph.D.

City of Hope, Irell & Manella Graduate School of
Biological Sciences
Assistant Professor

**Department of Physiology
Arizona**

Layla Al-Nakkash, Ph.D., Chair

University of Newcastle-Upon-Tyne
Professor

Thomas L. Broderick, Ph.D.

University of Alberta
Professor

Christopher R. Olson, Ph.D.

Iowa State University
Associate Professor

Michael C. Quinlan, Ph.D.

Arizona State University
Associate Professor

Ann Reville, Ph.D.

University of Arizona
Assistant Professor

Tobias Riede, D.V.M, Ph.D.

Humboldt University of Berlin, Germany
Associate Professor

Johanna Vallejo-Elias, Ph.D.

University of Missouri
Professor

Illinois

Paul F. McCulloch, Ph.D., Chair

University of Saskatchewan, Canada
Professor

Mae J. Ciancio, Ph.D.

Loyola University, Chicago
Program Coordinator, Master of Biomedical Sciences
Program
Associate Professor

Kyle Henderson, Ph.D.

Kansas University Medical Center
Associate Professor

Kathy J. LePard, Ph.D.

The Ohio State University
Program Director, Biomedical Sciences
Professor

Isabel Martinez-Pena y Valenzuela, Ph.D.

University of La Laguna, Spain
Assistant Professor

Rafael Mejia-Alvarez, M.D., Ph.D.

Universidad Nacional Autónoma de México School of
Medicine, Mexico
Baylor College of Medicine
Professor

Kathleen O'Hagan., Ph.D.

Rutgers, The State University of New Jersey
Associate Dean of Academic Affairs, Chicago College of
Osteopathic Medicine
Professor

Maura Porta, Ph.D.

Loyola University Chicago
Assistant Professor

Fred D. Romano, Ph.D.

Loyola University, Chicago
Dean, College of Health Sciences (Downers Grove, IL)
Professor

Alexander J Rosenberg, Ph.D.

University of Illinois at Chicago
Assistant Professor

Sinju Sundaresan, Ph.D.

Texas Woman's University
Assistant Professor

**Biomedical Sciences Program
Arizona**

Elizabeth E. Hull, Ph.D., Program Director

Rockefeller University
Professor

Lori M. Buhlman, Ph.D.

University of Arizona
College of Graduate Interdisciplinary Programs
Professor

Kimbal E. Cooper, Ph.D.

University of Illinois
College of Liberal Arts and Sciences
Professor Emeritus

**Delrae M. Eckman, Ph.D., Program Coordinator,
Master of Arts in Biomedical Sciences**

University of Nevada, Reno School of Medicine
Associate Professor

**Mitra Esfandiarei, Ph.D., Program Coordinator, Master
of Biomedical Sciences**

University of British Columbia Faculty of Medicine
Department of Pathology & Laboratory Medicine
Associate Professor

Sudhindra R. Gadagkar, Ph.D.

Dalhousie University
Associate Professor

Nafisa M. Jadavji, Ph.D.

McGill University
Assistant Professor

Nathan W. Johnson, Ph.D.

Arizona State University
College of Liberal Arts & Sciences
Associate Professor

Carleton B. Jones, Ph.D.

Washington State University
College of Pharmacy
Associate Professor

Brian P. Wellensiek, Ph.D.

University of Arizona College of Medicine
Associate Professor

Illinois

Kathy J. LePard, Ph.D., Program Director

The Ohio State University
Professor

Mae J. Ciancio, Ph.D.

Loyola University, Chicago
Program Coordinator, Master of Biomedical Sciences
Program
Associate Professor

Joshua Gasiorowski, Ph.D.

Northwestern University
Integrated Graduate Program
Associate Director, ORSP
Associate Professor

Andrew B. Hawkey, Ph.D.

University of Kentucky
Assistant Professor

**Kolla Kristjansdottir, Ph.D., Associate Program
Director, Precision Medicine**

Duke University
Duke University Medical Center
Associate Professor

Kristina Martinez-Guryn, Ph.D., R.D.

University of North Carolina-Greensboro
School of Health and Human Sciences
Associate Professor

Alesia V. Prakapenka, Ph.D.

Arizona State University
Assistant Professor

Precision Medicine Program

Garilyn Jentarra, Ph.D., Program Director

Arizona State University
Associate Professor

**Kolla Kristjansdottir, Ph.D., Associate Program
Director**

Duke University
Duke University Medical Center
Associate Professor

Hilal Arnouk, M.D., Ph.D.

The State University of New York at Buffalo
Associate Professor

Nancy Bae, Ph.D.

University of Maryland at College Park/National
Institutes of Health
Associate Professor

Bryan Bjork, Ph.D.

University of Iowa
Associate Professor

Thomas Bodestine, Ph.D.

University of Alabama at Birmingham
Associate Professor

Kelly Bontempo, M.S., C.G.C.

Northwestern University
Adjunct Faculty

Kimberly Bussey, Ph.D.

Oregon Health Sciences University
Assistant Professor

Ying He, Ph.D.

University of Illinois
Assistant Professor

Jose Hernandez, Ph.D.

University of Zaragoza, Spain
Professor and Chair

Sam Katzif, Ph.D.

Georgia State University
Associate Professor

Lisa Kronstad, Ph.D.

University of California, Berkeley
Assistant Professor

Kathryn Leyva, Ph.D.

Northern Arizona University
Professor and Chair

Rafael Mejia-Alvarez, M.D., Ph.D.

Universidad Nacional Autónoma de México School of
Medicine, Mexico
Baylor College of Medicine
Professor

Sandhya Noronha, M.D.

University of Illinois at Chicago
College of Medicine
Professor

Megan Roy-Puckelwartz, Ph.D.

University of Chicago
Adjunct Faculty

Yvonne Stevens, LL.M.

Arizona State University
Adjunct Faculty

Mark Swanson, Ph.D.

Stony Brook University
Assistant Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor

Julie A. Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Lab Manager and Instructor

Rosa Ventrella, Ph.D.

Northwestern University
Assistant Professor

Michael V. Volin, Ph.D.

The University of Chicago
Professor and Chair

Brian P. Wellensiek, Ph.D.

University of Arizona College of Medicine
Associate Professor

Public Health Program

David Line, Ph.D., M.P.H., M.S.W., Program Director

The University of New Mexico
Assistant Professor

Charlotte Bolch, Ph.D., M.S.

University of Florida
Manager of BioClinical Statistics and Adjunct Assistant
Professor

Anthony Peluso, Dr.PH., M.P.H.

East Tennessee State University
Assistant Professor

Lawrence Sands, D.O., M.P.H.

Midwestern University, Chicago College of Osteopathic
Medicine
Associate Professor

Felicia Trembath, Ph.D., M.P.H.

Purdue University
Assistant Professor

Mariah Zeigler, D.V.M., M.P.H., DACVPM

Virginia Maryland Regional College of Veterinary
Medicine
Assistant Professor

Courses

PMGCG 501: Introduction to Genetics and Genomics

This introductory course presents basic aspects of genetics, genomics, and molecular biology, including DNA variation and mutation. It also covers a range of common analytical techniques for nucleic acids and proteins. Important elements of chromosomal structure are explored as well as concepts related to genetic testing and gene therapy. Upon successful completion of this course, students will have the foundational knowledge necessary for understanding genomic and other 'omics concepts relevant to completing the remaining required core and elective courses.

Credits 2.0

PMGCG 502: Genomics of Rare and Complex Diseases

This course explores the genetic underpinnings of both monogenic and complex diseases. Dominant versus recessive autosomal diseases as well as X-linked, mitochondrial and cytogenetic diseases are covered. Evolutionary and population genetics are discussed, and methods for studying complex diseases are introduced. Students completing this course will demonstrate a working knowledge of the genetics of monogenic and complex diseases, and an understanding of the relevant analytical methods.

Credits 3.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

PMGCG 503: Introduction to Bioinformatics, Statistics, and Data Interpretation

Obtaining patient 'omics data is a first step in precision medicine. Subsequent computational and analytical methods are required to decipher these data. This course focuses on the analysis of 'omics data sets using bioinformatics and statistical tools. Students are introduced to the use of open access software to analyze provided data sets and learn to interpret the results. The objective of this course is to provide students with the basic skills needed to work with and derive valuable information from complex data sets produced by 'omics analyses.

Credits 2.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 504: 'Omics and Biomarkers

This course builds on the use of genomics in medicine by extending knowledge into areas that complement genomics, such as transcriptomics, proteomics and metabolomics. Students explore how these 'omics fields can be used in biomarker discovery and health management. Upon successful completion of this course, students will be able to explain broadly what is meant by 'omics analyses, describe the technologies involved, and display a specific comprehension of the source and uses of the various biomarkers in medicine.

Credits 3.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 601: The Application of Precision Medicine to Cancer

This course explores genetic and other molecular mechanisms involved in cancer development and progression, including assessment of the genomes and transcriptomes of tumor cells as well as the patient's normal cells. Students examine how this knowledge translates into precision technologies for cancer screening, as well as diagnosing and treating cancer patients. Upon successful completion of this course, students will demonstrate an understanding of the genetic origins and development of cancer, the methods of assessing what is occurring in cancerous cells, and a basic understanding of how knowledge gained from analyses can be used to benefit patients.

Credits 3.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 602: Pharmacogenomics

This course presents the ways in which genomic information can be used to ensure that patients receive the greatest possible benefit from therapeutics while mitigating risk of adverse events. Students will explore how genetic variation may alter drug metabolism, disposition, and action, as well as discuss how doses may need to be tailored, or drugs altered to account for certain polymorphic differences. Students successfully completing this course will demonstrate a working knowledge of the interaction between a patient's genetic structure and the safety and efficacy of therapeutic drugs.

Credits 2.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 603: Microbial Genetics, the Microbiome, and Infectious Diseases

This course provides information on basic features of microbial genetics that are relevant to health. It covers what is known about the effects of an individual's microbiome on their health, the consequences of dysbiosis, and the effects of the microbiome on patient treatment, including metabolism of therapeutics. Methods for studying and assessing an individual's microbiome, or microbiome features of various subject groups are discussed. This course also explores the role of 'omics information from both patients and infecting microbes in the identification, targeted treatment, and control of infectious diseases in individuals and on a population basis. After successful completion of this course, students will be able to demonstrate a basic knowledge of health-relevant microbial genetics, will be able to describe the role of the microbiome in health, and will comprehend the usefulness of 'omics technologies in the management of infectious diseases.

Credits 3.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 604: Ethical Legal and Social Issues of Precision Medicine

This course examines the ethical and legal issues surrounding the use of precision medicine technology, and particularly the potential misuse of genomic information, privacy, ownership of genetic information, open versus informed consent, and accessibility. It also addresses social issues that have developed or may develop in the future as a result of these types of genomic knowledge. Upon successful completion of this course, students will be able to describe existing and potential future ethical, legal, and social issues surrounding the use of precision medicine technologies.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 605: Counseling and Communication skills for Precision Medicine

This course considers how to effectively communicate genomic or other 'omics information to patients. Students learn how to tailor complex genomic discussions to a lay audience, become aware of how the information provided may be viewed by patients or their families, and consider how to counsel them about this information to enable patient-centric, optimal health decisions. Upon successful completion of this course, students will demonstrate familiarity with both the sensitive issues that arise when using precision medicine technologies and with methods that can be used for effectively communicating that information to patients and their families.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 801: Application of Precision Medicine to Inflammatory and Autoimmune Disease

This course explores genetic/genomic influences on the development of autoimmune diseases and other diseases with inflammatory components. Students discuss the use of biomarker studies for both increasing the accuracy of diagnosis and for identifying proteins and metabolites that may provide insight into the causes of these disorders. Students successfully completing this course will be able to demonstrate an understanding of the genetic underpinnings of inflammatory and autoimmune diseases and be able to explain how biomarker studies can be used to improve patient outcomes.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 802: The Application of Precision Medicine to Neurological Diseases

This course examines the genetic underpinnings of common neurological disorders, neurogenetic disorders, and neurodegenerative diseases. Students study how genomics can be used to identify genes that are directly involved in neurological disorders or that confer significant risk of developing a disorder. Students discuss how that information is used for diagnosis, prognosis, and development of novel therapeutics. Upon successful completion of the course, students will be able to explain the role that gene variants and mutations play in the development of neurological diseases and describe how that information can be used to support effective patient treatment and care.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 803: Application of Precision Medicine to Cardiovascular Diseases

This course covers polymorphisms related to cardiovascular disease, including genes that contribute to the development of heart disease, atherosclerosis, and stroke. Students review how these genetic risk factors were identified and linked to cardiovascular disease. They also learn about the interplay of lifestyle factors with genetic risk factors in the development of cardiovascular disease. Students completing this course will demonstrate an understanding of gene variants involved in increasing the risk of cardiovascular disease and be able to describe the role that lifestyle choices play in development of cardiovascular disease.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 804: Advanced Topics in Pharmacogenomics

This advanced topics course provides an in-depth knowledge of the clinical applications of pharmacogenomics. Students deepen their understanding of how genetic differences impact drug therapy. Students view recorded lectures presented by experts on disease-specific topics and also read assigned papers relevant to those topics. Assessment is based on completion of worksheets. Upon successful completion of this course, students will demonstrate a broad understanding of the current and potential clinical applications of pharmacogenomics.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[PMGCG 502: Genomics of Rare and Complex Diseases](#)

[PMGCG 602: Pharmacogenomics](#)

PMGCG 805: A One Health Approach to Genomics and Precision Medicine

This course focuses on how knowledge of the genomics, health, and environment of one species can be used to effectively develop targeted treatments for other species. It addresses the global interrelatedness of the health of all species and how One Health-based studies can help to develop solutions for human and animal health issues and inform public policy. Students successfully completing this course will be able to describe the uses and practicality of the One Health approach to supporting animal and human health, as well as the health of the environment.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 806: Epigenomics and Functional Genomics in Health and Disease

This course examines the importance of gene expression alterations on the health of individuals and populations. Topics include the mechanisms controlling gene expression, such as epigenetics, variation, and three-dimensional nuclear structure, and how these changes contribute to complex disease. Students also examine how advances in these areas can be used to improve health. Upon successful completion of this course, students will be able to demonstrate knowledge of the role that gene expression changes play in health and disease, as well as being able to describe the factors that influence gene expression.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 807: Genetic Technologies for the Treatment of Disease

This course explores methods available for manipulation of genomes to treat genetic diseases or to prevent the development of diseases. It addresses the various techniques for conducting gene therapy and editing, and the mechanisms by which they work. Students examine the health risks and ethical issues associated with these technologies. Upon successful completion of this course, students will demonstrate knowledge of the current technologies used for modifications of the genome, and be able to describe both the benefits and the intended and unintended consequences of these technologies.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 808: Precision Medicine Journal Club

This course engages students in surveys and in-depth evaluations of the precision medicine scientific literature. Seminal papers in the development of 'omic and precision medicine technologies, as well as recent publications, are critically reviewed. The objective of this course is to provide students with an understanding of how the various 'omics fields developed and to assist them with learning to evaluate and properly understand scientific literature.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 809: Understanding and Interpreting Direct-to-Consumer Genetic Testing

Direct-to-consumer genetic testing is in widespread use for both tracing ancestry and for identification of disease risk alleles. The purpose of this course is to help students understand the various types of tests available and recognize what types of information they provide. Students will learn how to assist their patients in interpreting and applying the results of risk allele testing to achieve better health outcomes. Upon successful completion of this course, students will understand the various formats in which direct-to-consumer genetic testing results are provided, will be able to describe how to appropriately evaluate the information provided, and will be able to help the patient make decisions or find resources that will help them make the best use of the genetic information they receive.

Credits 1.0

Prerequisites

[PMGCG 501: Introduction to Genetics and Genomics](#)

[BIOCD 1502: Biochemistry II](#)

PMGCG 810: Independent Study

This independent study course is designed to provide students the opportunity to explore topics of didactic and/or clinical interest as needed to enhance the student's learning.

Credits 0.5-6

Prerequisites

Permission of the Instructor

College of Dental Medicine-Illinois

Mission

The Midwestern University College of Dental Medicine – Illinois is dedicated to the education of dentists who will demonstrate excellence in comprehensive oral healthcare, service to the public, and the discovery and dissemination of knowledge.

Vision

Vision of ONE

As it takes a village to raise a child, it takes the entire college to develop a competent and confident clinician. Everyone involved with CDMI, working as ONE team, should have that ONE singular purpose of developing competent and confident clinicians in mind as they approach each day. The following themes guide the CDMI in pursuit of the Vision of ONE.

1. Remembering ONE purpose of developing competent and confident clinicians
2. Inspiring the desire for growth and development in everyone
3. Modeling the concept of ONE team from Admissions to Graduation
4. Teaching the teachers and leading the leaders
5. Standardizing the CDMI faculty to uniform instruction
6. Empowering students to be partners in their education
7. Empowering staff to be partners in the education of the students
8. Developing leadership skills that bring out the best in the students
9. Utilizing patient centered care to foster empathy by precept, example, and service
10. Leading others to act for the betterment of the larger whole - group, class, school, profession, and community
11. Empowering students to believe in themselves
12. Teaching students the importance of lifelong learning
13. Instilling in students the importance of balance and humility in life
14. Helping students to develop good habits that will last a lifetime
15. Developing a culture of opportunity
16. Developing a culture of optimism
17. Developing a culture of exceptionalism with humility

Accreditation

The Midwestern University College of Dental Medicine-Illinois is accredited by the Commission on Dental Accreditation (CODA) and has been granted the accreditation status of "approval without reporting requirements." The Commission is a specialized body recognized by the United States Department of Education.

The Commission can be contacted at

312/440-4653 or at 211 East Chicago Avenue, Chicago, IL 60611. The Commission's web address is:

<http://www.ada.org/117.aspx>.

Midwestern University is accredited by The Higher Learning Commission (HLC), 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413.

Degree Description

Upon graduation from the College of Dental Medicine-Illinois, the Doctor of Dental Medicine (D.M.D.) degree is granted. The usual length of the course of study is four academic years. The curriculum consists of two years of primarily didactic and preclinical instruction with clinical introductory experiences followed by two years of primarily clinical experiences and rotations including applicable didactic material. Upon graduation with the D.M.D. degree, the graduate is eligible to take licensure examinations to enter dental practice in the United States or Canada or participate in residency training in advanced fields of dentistry.

Admissions

The Midwestern University College of Dental Medicine-Illinois considers for admission those students who possess the academic, professional, and personal qualities necessary for development as exemplary dental professionals. To select these students, the College uses a rolling admissions process within a competitive admissions framework.

Admission Requirements

To be competitive, an applicant should have earned a bachelor's degree from an accredited college or university and possess both a science (biology, chemistry, and physics) and total GPA of 3.00 or more on a 4.00 scale.

Prerequisite Courses:

Course	Semester/Quarter Hours
Biology with lab	8 Semester/12 Quarter hours
General Chemistry with lab	8 Semester/12 Quarter hours
Organic Chemistry with lab	4 Semester/6 Quarter hours
Anatomy	3 Semester/4 Quarter hours
Microbiology	3 Semester/4 Quarter hours
Physics	8 Semester/12 Quarter hours
Physiology	3 Semester/4 Quarter hours
Biochemistry	3 Semester/4 Quarter hours
English Composition/Technical Writing	6 Semester/9 Quarter hours

In order to be considered for admissions, an applicant must:

1. Complete above prerequisite courses.
2. Submit competitive scores on the Dental Admission Test (DAT).
 - All candidates must submit results from the US DAT.
 - A total DAT score (summative scores less total Science and Academic Average) should be 110 and above to be competitive.
 - Scores in the area of 18 or higher will be expected for the Academic Average, Reading Comprehension, Perceptual Ability and total Science sections
 - The DAT test must have been taken no more than 3 years prior to application.
3. Submit two letters of recommendation.
 - One must be from either a pre dental advisory committee or a science professor
 - The other preferentially should be from either someone with a D.O./M.D. or D.D.S./D.M.D. degree and/or someone who can testify to the integrity and ethical standards of the applicant
 - Letters written by immediate family members will not be accepted

- All letters of evaluation must be submitted directly from the evaluators. The Office of Admissions will not accept letters submitted by students.
- 4. Demonstrate a sincere understanding of, and interest in, the humanitarian ethos of health care and particularly dental medicine.
- 5. Reflect a service orientation through community service or extracurricular activities.
- 6. Reflect proper motivation for and commitment to health care as demonstrated by previous salaried work, volunteer work, or other life experiences.
- 7. Possess the oral and written communication skills necessary to interact with patients and colleagues.
- 8. Agree to abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.
- 9. Pass the Midwestern University finger printing and criminal background check.

Competitive Admissions

Within the competitive admissions framework, the College uses multiple criteria to select the most qualified, diverse group of candidates from an applicant pool that greatly exceeds the number of seats available. Applicants are evaluated on academic coursework, performance on the Dental Admission Test (DAT), their application (AADSAS) essays, letters of evaluation, and interviews. Demonstrated community service through volunteerism or service-oriented employment is preferred.

Rolling Admissions

Midwestern University College of Dental Medicine-Illinois uses a rolling admissions process. Applications are reviewed and decisions to interview individual candidates are made at regular intervals during the admissions cycle. Interviews are conducted and the selection process of each candidate for College admission is made until the class is filled. Applicants are notified of their selection status as soon as possible after their interview date, but not prior to December 1 of the year preceding matriculation which is the earliest date the U.S. and Canadian dental schools have agreed to extend a position in the class.

Application Process

To initiate the application process, prospective students must apply directly to ADEA AADSAS at:

655 K Street NW
Suite 800
Washington, D.C. 20001
Phone: 202/289-7201;
Fax: 202/289-7204

1. Students may apply online. Students may access an AADSAS application in mid-May of the academic year preceding the year in which they plan to matriculate.
2. After receiving an applicant's processed information from AADSAS, the Office of Admissions creates the applicant file. Concurrently, the office sends a supplemental application to all applicants. The Applicant must complete and return the supplemental application as soon as possible; additionally, the Applicant must request two letters of evaluation. All letters of evaluation must be submitted by the evaluators directly to AADSAS or to MWU.

Please note: Status of the application can be tracked on the MWU website. Instructions for accessing accounts are available from the Office of Admissions. Please send notification of any changes in your mailing address and e-mail address. All requests for withdrawal an application must be done in writing; contact the Office of Admissions via e-mail at admissil@midwestern.edu.

Application Deadline

The official Associated American Dental Schools Application Service (AADSAS) application deadline is January 1st; however, to be competitive within the rolling admissions process, prospective students should submit their AADSAS applications as early as possible after June 1 of the year prior to their desired matriculation. Even though the AADSAS deadline is January 1 of the matriculation year, typically 75 percent of all admissions offers will be made by the end of December of the year prior to matriculation. The Midwestern University College of Dental Medicine-Illinois completion deadline (meaning all necessary parts of the application including DAT test scores and MWU-CDMI supplemental application form are received by the Office of Admissions prior to this date) is March 1 of the expected matriculation year.

Interview and Selection Process

To be considered for interviews, applicants must meet the admissions requirements listed previously. They must also submit all of the materials necessary to complete their files, e.g., AADSAS applications, supplemental MWU applications, DAT scores, and two letters of recommendation written by a predoctoral advisory committee, a faculty member, a dentist or physician, and by someone who knows the applicant very well.

After the Office of Admissions receives these materials, applicant files are reviewed to determine whether applicants merit interviews based on established criteria of the Admissions Committee. Applicants who receive invitations to interview must respond within four weeks. The Chair of the Admissions Committee, with the approval of the Dean, may also place a large number of students on an interview "wait list" pending possible interview openings toward the end of the interview cycle.

When applicants accept interviews, they join several other interviewees to meet with members of an interview panel, which is selected from a volunteer group of dental faculty. Team members and students question applicants about their academic and healthcare preparedness for dental school, and they rate the applicants on a standardized evaluation form relative to each of these variables. At the conclusion of the interviews, team members forward their evaluations for each applicant to the Admissions Committee. The Committee may recommend to accept, to deny, or place applicants on the alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status after the interviews, but not before December 1 of the year preceding matriculation, which is the date that all dental schools have agreed would be the first notification date.

The interview process typically begins in the summer prior to matriculation and ends in April or May of the matriculation year.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the CDMI. Candidates must be able to perform the following abilities and skills.

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand, including those on a computer screen or electronic device. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate in English, proficiently and sensitively, in verbal and written form, and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.

4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidate must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process. The candidate must agree to participate in touching/palpating on the skin and being touched/palpated on the skin by individuals regardless of gender in all academic settings, including dental head/neck exams, including intra- and extra-oral examinations. These activities will take place in large and small group settings as directed in the College's curricular requirements.

Candidates are required to verify that they understand and are able to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Reapplication Process

After receiving either denial or end-of-cycle letters, or letters of dismissal from the College, applicants/students may reapply for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of an admissions counselor.

To initiate the reapplication process, applicants must submit their applications to AADSAS. Applications are then processed according to standard application procedures.

Transfer Admission

Midwestern University College of Dental Medicine-Illinois may elect to accept transfer students from other dental schools as long as these students remain in good academic standing and have an acceptable reason(s) for seeking transfer.

To be considered for transfer, candidates must meet the College's general requirements for admission. Candidates must also observe the following procedures:

1. All inquiries for transfer to Midwestern University College of Dental Medicine-Illinois must be submitted to the Office of Admissions.

2. Completed applications are returned to the Office of Admissions and must include transcripts from the previous dental school, class rank, a statement of the reason for transfer and a Dean's letter of "Good Academic Standing."
3. The Admissions Committee reviews all completed applications and interviews selected candidates.
4. Selected candidates undergo a psychomotor skills test.
5. The Admissions Committee makes recommendations to the Dean for a transfer admission decision.
6. Applicants are notified by the Dean of final transfer admission decisions.

Advanced Standing Admission

Midwestern University College of Dental Medicine-Illinois may award advanced standing credit for well-qualified dental graduates from other countries. The following procedures must be observed:

1. All inquiries for transfer to Midwestern University College of Dental Medicine-Illinois must be submitted to the Office of Admissions.
2. Completed applications are returned to the Office of Admissions and must include national board scores, results from an English proficiency test, transcripts from the previous dental school, course-by-course evaluation by a recognized service (WES or ECE), and a statement of the reason for transfer.
3. The Admissions Committee reviews all completed applications and interviews selected candidates.
4. Selected candidates undergo a psychomotor skills test.
5. The Admissions Committee makes recommendations to the Dean for a transfer admission decision.
6. Applicants are notified by the Dean of final transfer admission decisions.

Graduation Requirements

Students usually complete the Doctor of Dental Medicine (D.M.D.) degree in fourteen consecutive quarters (45 months). To qualify for the D.M.D. degree, students must:

1. Follow an approved course of study leading to the completion of all D.M.D. requirements;
2. Satisfactorily complete all professional courses with a minimum cumulative grade point average of 2.000 and have no course grade below a "C" or "P" (Pass);
3. Successfully complete all CDMI competencies;
4. Challenge the Integrated National Board Dental Examination (NBDE);
5. Receive a favorable recommendation for conferral of the D.M.D. degree from the Student Academic Progress Committee-Clinical, and the Dean of CDMI;
6. Be recommended for conferral of the D.M.D. degree by the University Faculty Senate;
7. Settle all financial accounts with the University; and
8. Complete all graduation clearance requirements as instructed by the CDMI and University.

Licensure Requirements

Graduates of accredited U.S. Dental Schools are eligible to challenge certain licensure examinations and thereby obtain the right to practice dentistry ("licensure") in all 50 states of the United States, as well as many foreign countries. To obtain licensure, qualified candidates must meet the requirements established by individual states. Typically, states grant licensure in one of two ways:

1. The state accepts a certificate issued by the National Board of Dental Examiners (NBDE) and a certificate issued by a regional board of dental examiners (e.g. CRDTS, CDCA, SRTA, WREB)
2. Certain states honor formal or informal reciprocity agreements with other state(s) and, in some cases, issue a license by credentialing the certificate from another state.

It is the ultimate responsibility of the individual dental graduate / candidate to become fully aware of the many rules, regulations and restrictions related to licensure across the United States. Midwestern University and the College of Dental Medicine-Illinois cannot and will not be responsible for the many regulations and frequent changes that occur in the licensure environment.

For further information concerning licensure, please contact the American Dental Association or the specific state's licensing board.

Midwestern University's College of Dental Medicine-Illinois is designed to meet the educational requirements to become licensed to practice medicine in the following states and US districts and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, U.S. Virgin Islands, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Each student should check the additional licensure requirements for the state, district or territory in which they intend to pursue employment. *Special note:* licensure in New York and Delaware also requires completion of a PGY1 residency.

Curriculum

Degree Type

Doctor of Dental Medicine (D.M.D.)

The Midwestern University College of Dental Medicine-Illinois reserves the right to alter its curriculum whenever it deems appropriate for the essential professional preparation of its students.

This curriculum applies to students matriculated in the class of 2027. For students admitted to prior classes, please refer to the published curriculum listing in the Midwestern University Catalog corresponding to the year of matriculation.

Total Quarter Credits in the Professional Program: 245

First Professional Year

Preclinical Block

Course Code	Title	Credits
DENTD 1560	Oral Health Sciences Rotations I	1.0

Fall Quarter

Course Code	Title	Credits
CORED 1599I	Interprofessional Education I	1.0
IBSSD 1520	Molecular, Cellular and Tissue Structure and Function	5.0
IBSSD 1522	Blood, Lymphoid Tissue and Immunology	4.0
IBSSD 1525	Neural and Musculoskeletal Systems	3.0
DENTD 1522	Oral Health Sciences I	3.0
DENTD 1522SC	Oral Health Sciences I Simulation Clinic	2.0
DENTD 1524	Preventive Dental Medicine I	1.0
DENTD 1525	Personal Finance	0.5
DENTD 1529	Preclinical Professionalism I	0.5

Winter Quarter

Course Code	Title	Credits
CORED 1500J	Interprofessional Healthcare Communication	1.0
IBSSD 1530	Essentials of Infectious Disease, Integument and Lymphoreticular Systems	3.0
IBSSD 1534	Cardiovascular and Respiratory Systems	4.5
DENTD 1532	Oral Health Sciences II	2.5
DENTD 1532SC	Oral Health Sciences II Simulation Clinic	2.0
DENTD 1534	Preventive Dental Medicine II	1.0
DENTD 1539	Preclinical Professionalism II	0.5

Spring Quarter

Course Code	Title	Credits
IBSSD 1540	Endocrinology/Urinary and Reproductive Systems, Growth and Aging	4.5
IBSSD 1543	Head and Neck Anatomy	2.5
IBSSD 1545	Neuroscience	3.0
DENTD 1542	Oral Health Sciences III	2.5
DENTD 1542SC	Oral Health Sciences III Simulation Clinic	2.0
DENTD 1546	Introduction to Human Behavior I	1.0
DENTD 1547	Healthcare Ethics	0.5
DENTD 1549	Preclinical Professionalism III	0.5

Second Professional Year

Preclinical Block

Course Code	Title	Credits
DENTD 1660	Oral Health Sciences Rotations II	2.5

Fall Quarter

Course Code	Title	Credits
PHARD 1620	General Pharmacology I	2.0
DENTD 1622	Oral Health Sciences IV	10.5
DENTD 1622SC	Oral Health Sciences IV Simulation Clinic	4.0
DENTD 1624	Clinical Case Studies I	1.0
DENTD 1626	Dental Community Service I	0.5
DENTD 1629	Preclinical Professionalism IV	0.5

Winter Quarter

Course Code	Title	Credits
PHARD 1630	General Pharmacology II	3.0
DENTD 1632	Oral Health Sciences V	10.5
DENTD 1632SC	Oral Health Sciences V Simulation Clinic	4.5
DENTD 1634	Clinical Case Studies II	1.0
DENTD 1636	Dental Community Service II	0.5
DENTD 1637	Dental Ethics and Professionalism	0.5
DENTD 1639	Preclinical Professionalism V	0.5

Spring Quarter

Course Code	Title	Credits
DENTD 1642	Oral Health Sciences VI	9.5
DENTD 1642SC	Oral Health Sciences VI Simulation Clinic	5.5
DENTD 1644	Clinical Case Studies III	1.0
DENTD 1646	Dental Community Service III	0.5
DENTD 1647	Anesthesia I	1.0
DENTD 1648	Medical Emergencies	1.0
DENTD 1649	Preclinical Professionalism VI	0.5

Third Professional Year

Summer Quarter

Course Code	Title	Credits
DENTD 1710	Oral Health Sciences 3.1A	12.0
DENTD 1712	Clinical Professionalism Introduction, I	1.5
DENTD 1719	Oral Health Sciences VII	3.0

Fall Quarter

Course Code	Title	Credits
DENTD 1720	Oral Health Sciences 3.2A	12.0
DENTD 1722	Clinical Professionalism Introduction, II	1.5
DENTD 1729	Oral Health Sciences VIII	3.0

Winter Quarter

Course Code	Title	Credits
DENTD 1730	Oral Health Sciences 3.3A	12.0
DENTD 1732	Clinical Professionalism Introduction, III	1.5
DENTD 1739	Oral Health Sciences IX	3.0

Spring Quarter

Course Code	Title	Credits
DENTD 1710	Oral Health Sciences 3.1A	12.0
DENTD 1742	Clinical Professionalism Introduction, IV	1.5
DENTD 1749	Oral Health Sciences X	3.0

Fourth Professional Year

Summer Quarter

Course Code	Title	Credits
DENTD 1810	Oral Health Sciences 4.1A	12.0
DENTD 1812	Clinical Professionalism Introduction, V	1.5
DENTD 1819	Oral Health Sciences XI	3.0

Fall Quarter

Course Code	Title	Credits
DENTD 1820	Oral Health Sciences 4.2A	12.0
DENTD 1822	Clinical Professionalism Introduction, VI	1.5
DENTD 1829	Oral Health Sciences XII	3.0

Winter Quarter

Course Code	Title	Credits
DENTD 1830	Oral Health Sciences 4.3A	12.0
DENTD 1832	Clinical Professionalism Introduction, VII	1.5
DENTD 1839	Oral Health Sciences XIII	3.0

Spring Quarter

Course Code	Title	Credits
DENTD 1840	Oral Health Sciences 4.4A	12.0
DENTD 1842	Clinical Professionalism Introduction, VIII	1.5

Electives

Course Code	Title	Credits
DENTD 1480	Clinical Service Learning	0.1-2
DENTD 1497	Supplemental Dental Experience	0.1-13
	Total Credits	245

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the college. In the event that these policies need to be revised as the result of new accreditation requirements, mandates by the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Northwestern University.

Student Academic Progress Committee, Preclinical and Clinical

Two faculty committees of CDMI will review the academic performance of students: the Student Academic Progress Committee, Preclinical for the first two years and the Student Academic Progress Committee, Clinical for the third and fourth years.

Both progress committees meet at the end of each academic quarter to assess the academic status of students with an F. Students who attain satisfactory academic and professional progress are promoted to the next academic quarter, provided all tuition and fees have been paid.

Students with one or more course failure(s) are given the opportunity to meet with the appropriate Student Progress Committee. Notification of the date, time, and place of the committee meeting is sent to the student at least 48 hours in advance by priority email and/or telephone. Students are invited to the meeting to give a statement, to teleconference into the meeting by telephone and/or virtually, or provide a statement by e-mail or in writing, should they so desire. Decisions of the committee are forwarded to the Dean and emailed to the student. The right of appeal exists and is described in the Appeals Process section. Appeals must be filed with the Dean within three working days following official notification of the committee decision.

Students who have successfully completed their clinical education, passed all of the competency evaluations, and paid all tuition and fees will be recommended for graduation to the Faculty Senate.

Academic Failure

Students who accumulate three failures over more than a single academic year, or two failures in a single quarter, may be recommended for dismissal or an academic leave of absence. Students returning from an academic leave of absence are required to retake failed courses. The grade for a course repeated at an outside institution or at Midwestern University and passed is recorded as a grade of "C". The previous "F" course grade remains on the official transcript but does not calculate into the overall Grade Point Average.

Students may be dismissed from the academic program for the following reasons:

- Accumulate 4 or more failures within the four year curriculum
- Accumulate 3 or more failures in a single academic year
- Accumulate 2 or more failures in a single academic quarter
- Fail the repeat of a course previously failed

Any failures must be repeated within one year, unless an extension is granted by the Associate Dean for Academic Affairs and the Dean.

Please Note: Students will be assessed tuition and related fees for any additional years.

Readmission after Dismissal for Poor Academic Performance

It is at the discretion of the CDMI academic program to readmit a student who has been dismissed for poor academic performance. To initiate the reapplication process, candidates must complete and submit a new application and proceed through the standard application process established by the program. Before reapplying, however, individuals should seek the advice of an admissions counselor. It is expected that the individual would have addressed documented deficiencies before reapplication and be able to demonstrate the ability to meet all admission requirements and technical standards of the program.

The College's Admissions Committee will review completed applications of candidates and submit recommendations to the Dean for action. The CDMI Dean, via the Office of Admissions, then notifies applicants in writing of admission decisions.

No guarantee of readmission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Reapplications are allowed only within the first two years following dismissal. Readmission will be granted only once.

Academic Warning

An academic warning is a formal notification of substandard, quarterly academic performance, which cautions the student that continued performance at this level may result in the student being placed on academic probation. To return to good academic standing, a student must correct deficiencies and incur no further failures. An academic warning is issued by a Promotions Committee when a student has failed (grade of less than 70) one class in a quarter or upon the unsuccessful completion of a probationary quarter. When a student is placed on academic warning, it is noted in the student's academic file. Subsequently, when a student is returned to good academic standing, this is also noted in the student's file. Academic warning is not noted on transcripts. Students on academic warning are ineligible to hold student organizational offices unless appealed to, and approved by, the Dean.

Academic Probation

Academic Probation represents notice that continued inadequate academic performance might result in dismissal. If a student on academic probation successfully completes a probationary quarter, the student's academic status reverts to academic warning. To return to good academic standing, a student must correct deficiencies and incur no further failures. When a student is placed on academic probation, it is noted in the student's academic file. Subsequently, when a student is returned to good academic standing, this is also noted in the student's file. Academic probation is not noted on transcripts. Students on academic probation are ineligible to hold student organizational offices.

Advanced Standing

All requests for advanced standing by admitted, transfer, or enrolled students are processed on a course-by-course basis by the Dean. Courses must be at the graduate level to be considered for advanced standing. To request advanced standing, a student must submit a letter to the Dean in which the student includes a list of the course(s), an official course description(s), a transcript, and a syllabus of the course(s) previously taken. It is expected that a minimum grade of a "B" would have been achieved in the class being petitioned. The decision to grant or deny advanced standing will be made by the divisions providing the dental course in consultation with the CDMI Dean's Office.

Appeal Process

Following notification of a decision of the Student Promotion Committee, a student may appeal the decision in writing within three working days from notification of the decision to the Dean of the College of Dental Medicine-Illinois. The Dean makes the final decision. The Dean may grant an appeal only if a student can demonstrate one of the following:

1. Bias of one or more committee members
2. Material information not available to the committee at the time of its initial decision
3. Procedural error

During the appeal process, the student must continue to attend classes.

Disciplinary Warning/Probation

Disciplinary warning/probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 of the Student Handbook. Disciplinary probation is not noted on transcript but is kept in the student's disciplinary file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Dismissal

Matriculation and participation in dental school is a privilege, not a right. Therefore, a student can be dismissed for the following reasons:

1. failure to achieve minimum academic standards (preclinical or clinical promotions committees)
2. failure to exhibit the personal qualifications and ethical standards necessary to the practice of dentistry (student judicial process)
3. violation of Midwestern University College of Dental Medicine-Illinois rules and regulations that are grounds for dismissal (student and administrative judicial process).

Please Note: Students will be assessed tuition for additional coursework.

Course Failure Policy

The faculty provides didactic programs and measures students' performance in subject areas deemed necessary to become dental practitioners. Students who do not demonstrate minimum competencies assume the obligation and responsibility to make up academic failures. D-1 and D-2 students must successfully pass all failed courses before they can be promoted to the following year. D-3 and D-4 students must remediate/repeat any failed courses. Usually this occurs within the first month of the subsequent quarter.

Grade for Retaken Course

If a student receives a failing grade, that grade is recorded on the transcript as a letter grade (an "F" entry). Upon repetition of a failed course, the original grade of "F" remains on the transcript and the repeated course and a new grade is entered on the transcript. The grade for a failed course repeated and passed at Midwestern University or at an outside institution is recorded on the transcript as a grade of "C." For all failed clinical courses at Midwestern University that are repeated and passed, a grade of "C" will be recorded on the transcript. For both preclinical coursework and clinical courses that are repeated, the original failing grade will remain on the transcript but will not be included in the GPA calculations. If a repeated preclinical or clinical course is failed, a grade of "F" is again recorded on the transcript. Students who fail a course a second time will be recommended for dismissal.

Faculty Advisor Program

The advisor program plays an important role at Midwestern University College of Dental Medicine-Illinois. Students and faculty work closely together in the academic arena. This kind of educational interaction permits students to develop a mentoring relationship with their faculty. Students are encouraged to use the advice, expertise, and help of the faculty. Students should feel free to contact a faculty member of their choice for advice, encouragement, and support.

Grade Point Average

The grade point average is a weighted average computed using the number of credits assigned to each course and the quality points corresponding to the letter grade earned in each course. It is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course. The student's cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated beginning at the end of the first quarter of enrollment, and does not include any grades or credits for courses audited or accepted for transfer, or courses with a grade of withdrawal (W), withdrawal failing (WF), pass (P) or failed (F) that were later repeated.

Grading System

Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows:

Grade	Percent (%)	Quality Points (per credit)	Comments
A	93-100	4.00	—
A-	90-92	3.67	—
B+	87-89	3.33	—
B	83-86	3.00	—
B-	80-82	2.67	—
C+	77-79	2.33	—
C	70-76	2.00	—
F	< 70	0.00	For professional programs
I	—	0.00	An Incomplete (I) grade may be assigned by a course director when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 calendar days from the end of final exams for the quarter. In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade, with notice to the Registrar. If an incomplete grade remains beyond 10 days, it may be converted to a grade of "F," which signifies failure of the course.
IP	—	0.00	An In Progress (IP) grade may be assigned by a course director when a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "IP" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time, up to one month to complete required coursework. The "IP" in progress is used when extenuating circumstances make it necessary to extend the grade completion period past 10 days (illness, family death, etc). The completion period should not exceed one quarter with notification to the Registrar.
P	—	0.00	Pass; designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of 'P' is counted toward credit hour accruals for graduation but is not counted in any GPA calculations.
W	—	0.00	Withdrawal can be given after the first Friday and up to 50% of the course duration is completed. If greater than 50% of the course duration is completed or up to and including the last day of instruction, and the student is passing the course (at the time the withdrawal is approved by the Dean), a W grade will be entered. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation.
WF	—	0.00	Withdrawal/Failing is given when greater than 50% of the course duration is completed or up to and including the last day of instruction, and the student is failing the course (at the time the withdrawal is approved by the Dean). This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation.
AU	—	0.00	This designation indicates an audited course, that is, a student registered for a course with the understanding that neither academic credit nor a grade is earned. The possibility does not exist to change the course status from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.
AP			This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement (AP) is applied toward credit hour accruals, but is not counted in the GPA calculation.

These grading scales apply to all courses unless otherwise noted in the course syllabus.

Immunization Policy for CDMI

Full-time students are required to have all immunizations as outlined in the general policy section of the student handbook. Immunization requirements for CDMI students are subject to current Center for Disease Control and

Prevention guidelines, applicable state health department protocols and affiliated rotation sites requirements. Students who do not adhere to the immunization policy by the stated deadline may jeopardize their standing in the College.

Leave of Absence (LOA)

Academic. A student may be placed on LOA for academic reasons upon a determination of the Student Clinical Promotions Committee. A student on LOA for academic reasons is automatically placed on academic probation. Students will be assessed tuition for any additional instruction required as a result of the LOA. An academic LOA will result in a delay in the expected graduation date.

Voluntary. Students who wish to voluntarily initiate a leave of absence for personal or medical reasons should contact the Associate Dean for Academic Affairs. Additional coursework, for which students will be assessed tuition, may be required of students returning from a personal or medical LOA. A voluntary LOA may result in a delay in the expected graduation date.

Integrated National Board Dental Examination (INBDE) Policy

Students must challenge the INBDE during the fall or winter quarter of the DMD-4 year. If a student encounters a catastrophic event that prevents them from taking the examination during that timeframe, the Dean may allow challenging of the examination at a later date.

Students who fail to pass the INBDE:

1. Should retake the exam within six months from the date of the first attempt.
2. Should meet with the Dean (or designee) and selected Course Coordinators/Directors to develop an individualized course of study focused toward retaking and passing the INBDE. This will include recommendations to the student to uncover potential test-taking challenges and develop a structured study schedule.

Passing any portion of a licensing examination is not a substitute for passing a Midwestern University course.

Satisfactory Academic Progress

As required by federal law, reasonable standards of satisfactory academic progress have been established by Midwestern University College of Dental Medicine-Illinois for the Doctor of Dental Medicine program. These standards apply to all students applying for, or currently receiving, financial assistance. The policy and procedure for assessing financial aid status are noted in the Student Financial Services section of this catalog.

CDMI students must maintain a minimum GPA of 3.0 to be eligible to engage in student organization leadership roles or attend professional association meetings or other elective events that may interfere with curriculum time or academic progress.

Faculty

Kaveh Adel, D.D.S.

University of Iowa, College of Dentistry
Associate Dean, Preclinical Education, College of
Dental Medicine-Illinois

Melisa F. Alabsy, D.D.S., M.H.A.

University of Mexico
Director of Preclinical Curriculum, College of Dental
Medicine-Illinois

Asra Ali, D.D.S., M.S.

Indiana University, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Hilal Arnouk, M.D., Ph.D.

University at Buffalo
Associate Professor, Department of Pathology

Dawn Arnashus, D.D.S.

Loyola University Chicago, School of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Inderjit Bawa, D.D.S.

State University of New York at Stony Brook
Assistant Professor, College of Dental Medicine-Illinois

Bryan C. Bjork, Ph.D.

University of Iowa
Associate Professor, Department of Biochemistry and
Molecular Genetics

Paulina Brzozowski-Sawicki, D.D.S.

University of Illinois at Chicago, College of Dentistry
Director of Clinical Faculty and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Nalini Chandar, Ph.D.

University of Madras, India
Chair and Professor, Department of Biochemistry and
Molecular Genetics

Peter S. J. Chang, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Kyung Choi, D.M.D.

Case Western Reserve University, School of Dental
Medicine
Assistant Professor, College of Dental Medicine-Illinois

Kelli J. Christensen, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Michael J. Chutich, D.D.S., M.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Mae Ciancio, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Associate Professor, Biomedical Sciences Program

Maria Carolina Cuevas, D.M.D., D.M.Sc.

Harvard School of Dental Medicine
Associate Professor, College of Dental Medicine-Illinois

Arvydas Dailide, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Behnam Darvishan, D.M.D.

Midwestern University, College of Dental Medicine-
Arizona
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

August Durso, Jr., D.D.S.

Loyola University Chicago, School of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Michael Ebeid, Ph.D.

Creighton University
Assistant Professor, Department of Anatomy

Joshua R. Edwards, Ph.D.

Michigan State University
Professor, Department of Pharmacology

Ahmed El-Maghraby, D.M.D.

Southern Illinois University, School of Dental Medicine
Director of Clinical Faculty and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Jingyuan Fan, D.D.S., Ph.D.

University of Minnesota, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Michael J. Fay, Ph.D.

University of Mississippi, School of Pharmacy
Dean, College of Graduate Studies and Professor,
Department of Pharmacology

Michele Fornaro, Ph.D.

University of Turin, Italy
Chair and Professor, Department of Anatomy

Nastaran Foughani, D.M.D.

Midwestern University, College of Dental Medicine-
Arizona
Assistant Professor, College of Dental Medicine-Illinois

Jay R. Geaman, D.D.S.

Georgetown University, School of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Ronald George, D.D.S.

University of Illinois at Chicago, College of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Joanna Goral, Ph.D.

Loyola University Chicago
Professor, Department of Anatomy

Eric Gorscak, Ph.D.

Ohio University
Assistant Professor, Department of Anatomy

Jacalyn M. Green, Ph.D.

University of Michigan
Professor, Department of Biochemistry and Molecular
Genetics

Harold J. Haering, Jr., D.M.D.

University of Kentucky, College of Dentistry
Dean, College of Dental Medicine-Illinois

Sheila Hall, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Kyle K. Henderson, Ph.D.

Kansas University Medical Center
Associate Professor, Department of Physiology

Sandra E. Inouye, Ph.D.

Northwestern University
Associate Dean, College of Graduate Studies and
Professor, Department of Anatomy

Yosif M. Jabir, D.D.S.

Creighton University
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Michael Jacobs, D.D.S.

University of Illinois at Chicago, College of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Bruno C. Jham, D.D.S., M.S., Ph.D.

University of Maryland, Baltimore, School of Dentistry
Associate Dean, Academic Affairs, College of Dental
Medicine-Illinois

Robert B. John, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Eric R. Johnson, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Mimi Johnson, D.D.S.

Howard University, College of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Kenneth J. Kadziela, D.D.S., M.S.

Loyola University Chicago, School of Dentistry Clinical
Assistant Professor, College of Dental Medicine-Illinois

Preetha P. Kanjirath, B.D.S., M.D.S., M.S.

Mangalore University, India
Professor, College of Dental Medicine-Illinois

Phillip G. Kopf, Ph.D.

University of New Mexico
Chair and Associate Professor, Department of
Pharmacology

Angelina S. Kula, D.D.S.

Loyola University Chicago, School of Dentistry Clinical
Assistant Professor, College of Dental Medicine-Illinois

Theresa Lao, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical
Assistant Professor, College of Dental Medicine-Illinois

Anne La Valle, D.D.S.

University of Iowa, College of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Kathy J. LePard, Ph.D.

Ohio State University
Program Director, Biomedical Sciences and Professor,
Department of Physiology

Erin Leslie, Ph.D.

Northwestern University
Associate Professor, Department of Anatomy

James C. Lin, D.M.D.

Southern Illinois University, School of Dental Medicine
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

John Maffeo, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Ronald J. Magiera, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Reji T. Mathew, B.D.S., M.D.S.

University of Connecticut, School of Dental Medicine
Associate Professor, College of Dental Medicine-Illinois

Evandro Mattos, D.D.S., L.M.D., M.Sc.

Pontifical Catholic University of Minas Gerais, Brazil
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Alejandro M. Mayer, Ph.D.

University of Buenos Aires, Argentina
Professor, Department of Pharmacology

Paul F. McCulloch, Ph.D.

University of Saskatchewan, Canada
Chair and Professor, Department of Physiology

Rafael Mejia-Alvarez, M.D., Ph.D.

National Autonomous University of Mexico, School of
Medicine
Baylor College of Medicine
Professor, Department of Physiology

Celia Mimms, D.D.S.

University of Iowa, College of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Sidharth Mohan, B.D.S., M.S.

University of Florida
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Kathleen P. O'Hagan, Ph.D.

Rutgers University
Associate Dean, Chicago College of Osteopathic
Medicine and Professor, Department of Physiology

Michael Ori, D.D.S.

University of Iowa, College of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Stephen Palatinus, D.D.S., M.P.H.

University of Illinois at Chicago, College of Dentistry
Associate Dean, Clinical Education and Clinical
Assistant Professor, College of Dental Medicine-Illinois

Diana Patarroyo, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Prashant Patel, B.S., B.D.S., D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Kevin Patterson, D.D.S.

Northwestern University Dental School
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Sunil Philip, D.M.D.

University of Alabama, School of Dentistry
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Balbina J. Plotkin, Ph.D.

University of Tennessee
Professor, Department of Microbiology and
Immunology

Maura Porta, Ph.D.

Loyola University Chicago
Assistant Professor, Department of Physiology

Gary Potamianos, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Janey Prodoehl, PT, Ph.D., C.C.T.T.

University of Illinois at Chicago, College of Applied
Health Sciences
Assistant Program Director and Professor, Physical
Therapy Program

Walter C. Prozialeck, Ph.D.

Thomas Jefferson University
Professor, Department of Pharmacology

Mario D. Ramos, D.D.S., M.S.

Peruvian University Cayetano Heredia
Director of Preclinical Faculty and Associate Professor,
College of Dental Medicine-Illinois

Kyle H. Ramsey, Ph.D.

University of Arkansas for Medical Sciences
Vice President and Chief Academic Officer, Dental and
Health Sciences Education and Professor, Department
of Microbiology and Immunology

Jahnavi Rao, D.D.S., M.S.

University of California San Francisco
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Marcela Rocha de Oliveira Carrilho, D.D.S., Ph.D.

University of Sao Paulo, Brazil, School of Dentistry
Associate Professor, College of Dental Medicine-Illinois

Fred D. Romano, Ph.D., M.S.

Loyola University Chicago
Dean, College of Health Sciences-Downers Grove and
Professor, Department of Physiology

Mykola Rudyk, D.D.S., M.P.A.

Ivano-Frankivsk State Medical University, Ukraine
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Linda Sangalli, D.D.S., M.S., Ph.D.

University of Brescia, Italy
Assistant Professor, College of Dental Medicine-Illinois

Thomas Sarna, D.D.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Philip L. Schefke, D.D.S.

University of Illinois at Chicago, College of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Ingrid Schroetter, D.D.S.

Northwestern University Dental School
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Ira M. Sigar, Ph.D.

Illinois Institute of Technology
Associate Professor, Department of Microbiology and
Immunology

Kelly Skerrett, D.D.S.

University at Buffalo, School of Dental Medicine
Clinical Care Coordinator and Clinical Assistant
Professor, College of Dental Medicine-Illinois

Lawrence Smith, D.D.S.

University of Michigan, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Drauseo Speratti, D.M.D.

Midwestern University, College of Dental Medicine-
Arizona
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Joseph R. Sperlazzo, D.D.S., M.S.

Loyola University Chicago, School of Dentistry
Clinical Assistant Professor, College of Dental
Medicine-Illinois

Luigi Strizzi, M.D., Ph.D.

University of Chieti-Pescara, Italy
Associate Professor, Department of Pathology

Daniel Sula, D.D.S.

Northwestern University Dental School
Assistant Professor, College of Dental Medicine-Illinois

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago, Stritch School of Medicine
Professor, Department of Microbiology and Immunology

Julie Swartzendruber, Ph.D.

Northwestern University
Associate Professor, Department of Microbiology and Immunology

Vaibhav Tiwari, Ph.D.

Banaras Hindu University, India
Associate Professor, Department of Microbiology and Immunology

Timothy Toepke, D.D.S.

Northwestern University Dental School
Clinical Assistant Professor, College of Dental Medicine-Illinois

Susan M. Viselli, Ph.D.

Pennsylvania State University
Professor, Department of Biochemistry and Molecular Genetics

Michael V. Volin, Ph.D.

The University of Chicago
Chair and Professor, Department of Microbiology and Immunology

Jeffrey Wascher, D.D.S.

Loyola University Chicago, School of Dentistry
Assistant Professor, College of Dental Medicine-Illinois

Larry N. Williams, D.D.S.

University of Tennessee, College of Dentistry
Associate Professor, College of Dental Medicine-Illinois

James M. Woods, Ph.D.

Loyola University Chicago
Assistant Vice President of Research and Professor, Department of Microbiology and Immunology

Courses

CORED 1500J: Interprofessional Healthcare Communication

This course is taught by behavioral scientists and introduces students to the fundamental principles for the effective communication with patients, families, and significant others of the patient. Using material gleaned from the empirical and clinical domains of behavioral medicine, the course focuses on patient-centered approaches for promoting, improving, and maintaining dialogue with patients. Effective communication has been shown to be central to patient satisfaction, professional satisfaction, patient adherence to treatment plans, and positive outcomes for the patient.

Credits 1.0

CORED 1599: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

DENTD 1480: Clinical Service Learning

Student Dentists will accumulate a broad experience of most age groups and with patients of different treatment difficulty under the supervision of the clinical faculty in rotations through extramural treatment. Students may participate in an externship offered at community health centers with which CDMI holds articulation agreements. Student Dentists may only register for this course in DMD-4 year, upon approval by the Associate Dean for Academic Affairs.

Credits 0.1-2

DENTD 1497: Supplemental Dental Experience

Students may participate in these elective courses when reacquisition of knowledge and/or clinical skills is required following a period of approved absence. Course may be repeated if necessary. Course may be individualized according to student's academic and/or clinical needs. Approval by Associate Dean for Academic Affairs required prior to enrolling.

Credits 0.1-13

DENTD 1522: Oral Health Sciences I

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 3.0

DENTD 1522SC: Oral Health Sciences I Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 2.0

DENTD 1524: Preventive Dental Medicine I

These two courses cover important concepts in preventive dental medicine. Through lectures and hands-on exercises in the Simulation Clinic, students learn how to establish their own oral health. They also learn the science and practice of oral health assessment and preventive dental treatment modalities. Course instruction focuses on ways to promote one's own oral health, the health of one's patients, and the health of one's community at large. Methods learned and forms used in the courses are incorporated into subsequent patient care in the Dental Institute.

Credits 1.0

DENTD 1525: Personal Finance

This course introduces the new dental student to effective personal financial management. Topics include the economy's effect on credit and debt, personal money management, managing credit, and debt and personal needs.

Credits 0.5

DENTD 1529: Preclinical Professionalism I

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1532: Oral Health Sciences II

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 2.5

DENTD 1532SC: Oral Health Sciences II Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 2.0

DENTD 1534: Preventive Dental Medicine II

These two courses cover important concepts in preventive dental medicine. Through lectures and hands-on exercises in the Simulation Clinic, students learn how to establish their own oral health. They also learn the science and practice of oral health assessment and preventive dental treatment modalities. Course instruction focuses on ways to promote one's own oral health, the health of one's patients, and the health of one's community at large. Methods learned and forms used in the courses are incorporated into subsequent patient care in the Dental Institute.

Credits 1.0

DENTD 1539: Preclinical Professionalism II

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1542: Oral Health Sciences III

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 2.5

DENTD 1542SC: Oral Health Sciences III Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 2.0

DENTD 1546: Introduction to Human Behavior I

This course introduces the fundamentals of effective communication and relationship-building skills. Topics covered include rapport-building skills with patients and colleagues, emotional intelligence, personality types, conflict resolution, and team-building strategies.

Credits 1.0

DENTD 1547: Healthcare Ethics

Healthcare Ethics introduces dental students to the broad concepts of ethical and professional obligations, guidelines, reasoning, and decision-making involving the doctor-patient relationship and the delivery of healthcare.

Credits 0.5

DENTD 1549: Preclinical Professionalism III

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1560: Oral Health Sciences Rotations I

These continuously running simulation clinic rotation courses build on and expand the knowledge obtained during the preclinical simulation and didactic courses in the program. The courses are organized into themes and consist of rotations in various disciplines of dentistry.

Credits 1.0

DENTD 1622: Oral Health Sciences IV

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 10.5

DENTD 1622SC: Oral Health Sciences IV Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 4.0

DENTD 1624: Clinical Case Studies I

This seminar series allows the dental students to participate in treatment planning options for complex dental cases and requires them to work up primary and alternative treatment plans for complex patients likely to be seen in a general practice, and present the plans to their faculty mentors in a case presentation format. This course runs for three quarters during the second-year curriculum where cases will become increasingly more challenging.

Credits 1.0

DENTD 1626: Dental Community Service I

In these Dental Community Service courses, second year dental students participate in visits to elementary and junior high schools to provide health promotion education to students in oral disease prevention, tobacco cessation, and drug avoidance. Each student participates on two half-days per quarter.

Credits 0.5

DENTD 1629: Preclinical Professionalism IV

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1632: Oral Health Sciences V

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 10.5

DENTD 1632SC: Oral Health Sciences V Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 4.5

DENTD 1634: Clinical Case Studies II

This seminar series allows the dental students to participate in treatment planning options for complex dental cases and requires them to work up primary and alternative treatment plans for complex patients likely to be seen in a general practice, and present the plans to their faculty mentors in a case presentation format. This course runs for three quarters during the second-year curriculum where cases will become increasingly more challenging.

Credits 1.0

DENTD 1636: Dental Community Service II

In these Dental Community Service courses, second year dental students participate in visits to elementary and junior high schools to provide health promotion education to students in oral disease prevention, tobacco cessation, and drug avoidance. Each student participates on two half-days per quarter.

Credits 0.5

DENTD 1637: Dental Ethics and Professionalism

Dental Ethics and Professionalism uses a case-based approach to clinical ethical reasoning and examination of ethical issues and dilemmas in the dental care setting. The course also addresses expectations for professional behavior among dental practitioners.

Credits 0.5

DENTD 1639: Preclinical Professionalism V

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1642: Oral Health Sciences VI

These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prosthodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

Credits 9.5

DENTD 1642SC: Oral Health Sciences VI Simulation Clinic

These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prosthodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

Credits 5.5

DENTD 1644: Clinical Case Studies III

This seminar series allows the dental students to participate in treatment planning options for complex dental cases and requires them to work up primary and alternative treatment plans for complex patients likely to be seen in a general practice, and present the plans to their faculty mentors in a case presentation format. This course runs for three quarters during the second-year curriculum where cases will become increasingly more challenging.

Credits 1.0

DENTD 1646: Dental Community Service III

In these Dental Community Service courses, second year dental students participate in visits to elementary and junior high schools to provide health promotion education to students in oral disease prevention, tobacco cessation, and drug avoidance. Each student participates on two half-days per quarter.

Credits 0.5

DENTD 1647: Anesthesia I

Anesthesia I covers the anatomy, medical considerations, pharmacology, techniques, and complications of local anesthesia in dental practice. Clinical experiences occur in subsequent clinical courses.

Credits 1.0

DENTD 1648: Medical Emergencies

This course covers the management of medical emergencies likely to be seen in a dental office.

Credits 1.0

DENTD 1649: Preclinical Professionalism VI

These courses span the D1 and D2 years and serve as a transition to Clinical Professionalism in the D3 and D4 years. These quarterly courses contain no formal class sessions or written examinations. The courses monitor and evaluate student dentists' relationships with their peers, faculty, and staff and their professional conduct. The course grading philosophy assumes a professional behavioral norm in which all encounters and personal interactions are handled appropriately and professionally. Each student dentist begins the course with 100 points. Points are deducted if there are departures from the norm of excellent interactions with peers, faculty, and staff, and professional conduct.

Credits 0.5

DENTD 1660: Oral Health Sciences Rotations II

These continuously running simulation clinic rotation courses build on and expand the knowledge obtained during the preclinical simulation and didactic courses in the program. The courses are organized into themes and consist of rotations in various disciplines of dentistry.

Credits 2.5

DENTD 1710: Oral Health Sciences 3.1A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1712: Clinical Professionalism Introduction, I

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1719: Oral Health Sciences VII

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1720: Oral Health Sciences 3.2A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1722: Clinical Professionalism Introduction, II

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1729: Oral Health Sciences VIII

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1730: Oral Health Sciences 3.3A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1732: Clinical Professionalism Introduction, III

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1739: Oral Health Sciences IX

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1740: Oral Health Sciences 3.4A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1742: Clinical Professionalism Introduction, IV

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1749: Oral Health Sciences X

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1810: Oral Health Sciences 4.1A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1812: Clinical Professionalism Introduction, V

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1819: Oral Health Sciences XI

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1820: Oral Health Sciences 4.2A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1822: Clinical Professionalism Introduction, VI

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1829: Oral Health Sciences XII

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1830: Oral Health Sciences 4.3A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1832: Clinical Professionalism Introduction, VII

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

DENTD 1839: Oral Health Sciences XIII

These continuously running didactic courses build on and expand prior knowledge obtained during the preclinical portion of the program. The courses are organized into themes, to include surgical sciences, oral diagnosis, comprehensive case reviews, behavioral sciences, dental therapeutics, practice management and advanced clinical topics.

Credits 3.0

DENTD 1840: Oral Health Sciences 4.4A

In the Oral Health Sciences courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one's clinical performance, and practicing efficiently and profitably.

Credits 12.0

DENTD 1842: Clinical Professionalism Introduction, VIII

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students' relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.

Credits 1.5

IBSSD 1520: Molecular, Cellular and Tissue Structure and Function

This course spans four modules that cover cell and tissue structure, cell signaling and metabolism, molecular biology and inheritance, and nutrition and cancer. Module 1: Cell and Tissue Structure. The disciplines of Biochemistry and Histology cover general cell structure and function. Topics include cell structure, muscle, epithelium and connective tissue, amino acid and protein structure, enzyme regulation and hemoglobin as well as a virtual histology laboratory. Module 2: Cell Signaling and Metabolism. Topics include second messenger, catalytic and steroid signaling, regulation of membrane transport, intermediary metabolism and bioenergetics, carbohydrate, protein and lipid metabolism and the biochemical foundations of diabetes mellitus. Module 3: Molecular Biology and Inheritance. Topics include the human genome, DNA replication, repair and mutations, transcription, translation and trafficking, genetic risk, autosomal dominant, recessive, sex-linked, mitochondrial and multifactorial inheritance as well as chromosomal abnormalities, genetic screening, diagnosis and gene therapy. Module 4: Nutrition and Cancer. Topics include macronutrients, vitamins, alcohol, iron and mineral metabolism, malnutrition and obesity as well as apoptosis, regulation of the cell cycle, histopathology of cancer, the molecular basis of cancer, tumor promotion and cancer metabolism.

Credits 5.0

IBSSD 1522: Blood, Lymphoid Tissue and Immunology

This course spans three modules to provide an overview of blood, lymphoid tissue, immunology and white blood cell disorders. Module 1: Biochemistry and Histology of Blood and Lymphoid Tissue. The disciplines of biochemistry, pathology, and anatomy present the topics of hemostasis, anemia, hematopoiesis, and the histology and anatomy of lymphoid organs. Module 2: Innate and Adaptive Immune System. The microbiology and immunology department presents topics including antibodies, complement, phagocytosis, inflammation, T cells, B cells, and integrated immune responses to pathogens. Module 3: White Blood Cell disorders and Clinical Immunology. The disciplines of pathology and immunology present the topics of vaccines, wound healing, cancer immunology, transplant immunology, hypersensitivities, immune deficiencies, autoimmunity, white blood cell disorders and neoplastic blood disorders.

Credits 4.0

IBSSD 1525: Neural and Musculoskeletal Systems

This course contains three interdisciplinary modules that cover the structure, function, and relevant pathology of the peripheral nervous system and the musculoskeletal system. The disciplines of embryology, gross anatomy, histology, physiology, and pathology cover the basic structure and function of the nervous system with an emphasis on the peripheral nervous system, as well as the basic principles of musculoskeletal structure and function. Neural topics include the embryological development, histology and structure of the nervous system, physiology of nerve and neuromuscular transmission and peripheral neuromuscular disease. Musculoskeletal topics include histology of muscle and bone, gross anatomy of the upper extremity, physiology of skeletal muscle, and muscle metabolism. In addition, non-neoplastic bone diseases and diseases of muscle and joints are presented.

Credits 3.0

IBSSD 1530: Essentials of Infectious Disease, Integument and Lymphoreticular Systems

This course spans three modules that present principles of infectious disease, followed by a discussion of skin and blood disorders. Module 1: Introduction to Infectious Disease. Fundamentals of infectious disease and epidemiology are covered in this module. Topics include taxonomy, structure, identification and virulence determinants of infectious agents, and principles of infection control. Module 2: Integument. The disciplines of anatomy, microbiology and pathology cover normal skin structure and function, and mechanisms of the clinical course of relevant integument disorders and diseases. Module 3: Lymphoreticular system. The disciplines of microbiology and pathology cover topics that include bacterial, fungal, viral, and other blood-borne pathogens, in addition to medically relevant arthropods and the pathological basis of various neoplastic diseases.

Credits 3.0

IBSSD 1534: Cardiovascular and Respiratory Systems

This course presents an interdisciplinary approach to the cardiovascular system and respiratory systems over four modules. The disciplines of gross anatomy, histology, embryology, physiology, microbiology and pathology cover the development, structure and function of the cardiovascular and respiratory systems. Cardiovascular topics include: gross anatomy, histology and embryology of the cardiovascular system, cardiac and smooth muscle, cardiac function, systemic and microcirculatory hemodynamics, control of blood pressure, infective endocarditis and cardiac disease. Respiratory topics include: gross anatomy, and histology of the respiratory system, pulmonary mechanics, gas exchange, and control of ventilation, as well as infections and diseases of the respiratory system.

Credits 4.5

IBSSD 1535: Gastrointestinal System

This course presents an interdisciplinary approach to the gastrointestinal (GI) system. The disciplines of gross anatomy, histology, biochemistry, physiology, microbiology and pathology cover structure, function and common pathologies of the tube of the GI tract and its associated secretory organs. Additional topics include oral, intestinal and hepatic infections, disorders of hepatic metabolism, and oral health nutrition.

Credits 3.5

IBSSD 1540: Endocrinology/Urinary and Reproductive Systems, Growth and Aging

This course spans four interdisciplinary modules that provide a basic overview of the endocrine, urogenital and reproductive systems, somatic growth, and aging. Module (1): Endocrinology. The disciplines of histology, physiology, and pathology cover the basic structure and function of the endocrine system. Topics include histology of endocrine glands, regulation of hormonal secretion, physiological effects of hormones, and common disorders and diseases of the endocrine system, with an emphasis on diabetes. Module (2): Urinary System. The disciplines of gross anatomy, histology and physiology cover the structure and function of the urinary system. Topics include the gross anatomy and histology of the urinary systems, physiology of renal blood flow, tubular transport, and control of extracellular fluid volume and composition. Module (3): Acid Base/Renal pathophysiology/Female Reproductive System. The disciplines of anatomy, histology, physiology and pathology complete the coverage of the urinary system and survey the structure, function and pathology of the female reproductive system. Topics include acid base physiology, renal pathophysiology, the menstrual cycle, pregnancy, menopause, and common pathologies of the female reproductive system. Module (4): Male Reproductive System/Growth and Aging. The disciplines of gross anatomy, histology, physiology, microbiology, and pathology cover structure, function, and pathologies of the male reproductive system and sexually transmitted diseases. In addition, the disciplines of physiology and biochemistry cover growth hormones, somatic growth, puberty, and aging.

Credits 4.5

IBSSD 1543: Head and Neck Anatomy

Head & Neck Anatomy is an integrated, interdisciplinary course that includes detailed study of gross anatomy of the head and neck relevant to dental medicine. The course consists of didactic lectures and guided, cadaver-based prosection laboratory activities. Integrated lectures are given by faculty in the Departments of Anatomy, Microbiology & Immunology, and Pathology. Emphasis is placed on clinical application of anatomical knowledge. The course is organized as a series of modules that provide an in-depth look at the structure and function of the following: Module 1: Skull, Face and Cranial Nerves Module 2: Neck, Pharynx, Larynx and Nasal Cavity Module 3: Orbit, Ear and Oral Cavity

Credits 2.5

IBSSD 1545: Neuroscience

This course presents an interdisciplinary approach to clinical neuroscience with an emphasis on craniofacial sensory innervation. The disciplines of anatomy, physiology, microbiology and speech language pathology cover the gross anatomy and function of the central nervous system (CNS). Topics include structure of the nervous system, somatosensory function, special senses, CNS infectious disease, the motor system and higher cortical function.

Credits 3.0

PHARD 1620: General Pharmacology I

These courses place an emphasis on the physical and chemical properties of the drugs, dosages, and therapeutic effects, methods of administration and indications/contraindications for the use of the drug.

Credits 2.0

PHARD 1630: General Pharmacology II

These courses place an emphasis on the physical and chemical properties of the drugs, dosages, and therapeutic effects, methods of administration and indications/contraindications for the use of the drug.

Credits 3.0

Chicago College of Optometry

Mission

The mission of the Chicago College of Optometry is to develop competent individuals who embrace lifelong learning through the pursuit of excellence in education, research, scholarship, and patient care for a diverse society. The College's educational programs emphasize and promote public health, leadership, ethics, professionalism, compassion, commitment, collegiality, and sense of community.

Vision and Goals

The Midwestern University Chicago College of Optometry has the vision to:

- Deliver an exceptional optometric educational experience utilizing our unique multi-health professional setting and cutting edge technology.
- Provide our students with the knowledge and skills to deliver the highest level of professional, ethical and compassionate eye and vision care.
- Recruit qualified students; promote lifelong learning, community outreach, and innovative research; and develop leaders in the profession and communities.

The Midwestern University Chicago College of Optometry will pursue the following goals:

- Deliver a comprehensive Doctor of Optometry degree program that prepares graduates for contemporary practice and encourages and fosters advanced training, in order to serve the interests and needs of the broader community.
- Present an innovative optometry program with faculty committed to learning and teaching the current research and evidence based medicine applications using technologies to provide an exceptional educational experience for students.
- Develop and support the faculty and students in the commitment to research and scholarly activities and excellence in patient care.
- Graduate students who have achieved the learning outcomes as defined by the Faculty.
- Improve patient care through promotion of interprofessional educational programming and the Midwestern University One Health Quality Initiative.
- Foster a commitment to professional, collegial, and ethical practices in patient care while promoting public service to diverse communities.
- Develop a high quality program appropriate for optometry residents at an affiliated or Midwestern University sponsored accredited optometry residency site.
- Serve the eye and vision healthcare needs of Downers Grove and neighboring communities through the Midwestern University Eye Institute.
- Provide and encourage lifelong learning and support services to the optometric profession.
- Develop leaders in the optometric profession and the healthcare community.

Accreditation

The Midwestern University Chicago College of Optometry has been granted the accreditation classification of "Accredited" by the Accreditation Council on Optometric Education (ACOE), of the American Optometric Association (AOA), 243 N. Lindbergh Blvd., St. Louis, MO 63141; phone 800/365-2219.

Midwestern University is accredited by The Higher Learning Commission, located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411; phone 312/263-0456.

Degree Description

Midwestern University Chicago College of Optometry (CCO) awards the degree Doctor of Optometry (O.D.) upon successful completion of the four-year professional curriculum in optometry. The first and second years of the curriculum emphasize basic health sciences, optics and visual science and students are introduced to clinical practice in simulation laboratories, didactic courses and clinical experiences. Visual consequences of disease are introduced in the second year. The third year, divided between a didactic and clinical setting, emphasizes the diagnosis and treatment of ocular dysfunction and disease. The fourth year consists of intensive clinical training that includes both on campus and off campus clinical rotations. Clinical settings for external rotations may include military facilities, Veterans Administration hospitals, public health service hospitals, and specialty and/or private practices or clinics.

Admissions

CCO considers for admission those students who possess the academic, professional, and personal qualities necessary for development as exemplary optometrists. CCO uses multiple criteria to select the most qualified candidates including cumulative and science grade point averages (GPAs), entrance exam scores (e.g. OAT), personal experiences and character, ability to communicate, familiarity with the profession, volunteer/community involvement, research experience, and other considerations. CCO uses a rolling admissions process.

Admission Requirements

Students seeking admission to CCO must submit the following documented evidence:

1. A minimum cumulative GPA and science coursework GPA of 2.75 on a 4.00 scale.
2. A baccalaureate degree from a regionally accredited institution. A B.A. degree is acceptable, but a B.S. degree is preferred.
3. Results of one of the following admission tests. Applicants must submit scores from one of the following admission tests: Optometry Admission Test (OAT), Medical College Admission Test (MCAT), Dental Aptitude Test (DAT), Pharmacy College Admission Test (PCAT), or the Graduate Record Exam (GRE). A competitive test score (at least at or above the mean score for each exam) is recommended of all applicants. In order to be considered for the class to be admitted in the Fall of each academic year, the admission test must be taken and results submitted by April 30th of the year of matriculation. Entrance exam scores must be earned no more than five years prior to the planned enrollment year.
4. Necessary course prerequisites. All prerequisite courses must be completed with grades of C or better prior to matriculation. Only courses designed for science majors or pre-professional students are acceptable for the science prerequisites.
5. Two letters of recommendation. One letter must be from a practicing optometrist. The other letter must be from a prehealth advisor, a professor, an employer or an extracurricular activity advisor. Letters of recommendation from relatives, personal and/or family friends are not acceptable.
6. A good understanding of optometric medicine. Candidates are strongly encouraged to shadow and observe a number of practicing optometrists in the clinical setting.
7. Extracurricular and/or community activities that indicate a well-rounded background and demonstrate a commitment to service.
8. Interpersonal and communication skills necessary to relate effectively with others.
9. Passage of criminal background check.
10. A commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

Prerequisite Courses

Course	Sem Hrs	Qtr Hrs
Biology with lab	8	12
General/Inorganic Chemistry with lab	8	12
Organic Chemistry with lab	4	6
Physics	6	9
Calculus	3	4
Microbiology	3	4
Statistics	3	4
Psychology	3	4
English	6	9

Note: CCO strongly recommends the following courses: Anatomy, Physiology, and Biochemistry.

The Doctor of Optometry degree program is rigorous and challenging. The Admissions Committee will therefore assess the quality and rigor of the pre-optometry academic records presented by applicants. When assessing an application, the Admissions Committee will view with concern applicants with:

1. Cumulative and science grade point averages below 3.00 on a 4.00 scale.
2. Admission test scores below the mean for each exam.
3. Prerequisite science coursework completed more than 10 years ago. More recent (within five years) math and science coursework is preferred.

Application Process and Deadlines

Applicants are strongly encouraged to apply early in the cycle. Applications are considered on a first come first served basis only until all seats are filled.

1. OptomCAS Application

Applicants are required to submit online applications and application fees to OptomCAS by April 1, 2024. In addition to the online application and application fees, an applicant must forward to OptomCAS official transcripts from all colleges and universities attended by the April 1st date. OptomCAS will begin the verification process as official transcripts are received, however an application will not be considered complete until all official transcripts are received. Students must apply for admission via OptomCAS at www.opted.org or www.optomcas.org. Please refer to the OptomCAS application instructions for specific details about completing the OptomCAS application, required documents, and processing times. OptomCAS applications are available starting Summer 2023 for applicants seeking admission in August of the following year. Due to the large number of applicants and the limited number of seats available, students are strongly encouraged to complete their OptomCAS application early in the cycle. CCO will consider completed applications on a first-come, first-served basis until all seats are filled.

2. Admission Test Score

CCO prefers the OAT, but will accept the MCAT, DAT, PCAT, or GRE test scores as an alternative. Applicants must arrange for scores from the admission exam to be sent directly to Midwestern University. Only test scores received directly from the testing agency will be accepted. Any of these admission exam scores must be earned no more than five years prior to the planned enrollment year. Additional information on the OAT may be found at www.opted.org or in writing to:

*Optometry Admission Testing Program
211 East Chicago Avenue*

Chicago, Illinois 60611

800/232-1694

email: optexam@ada.org

3. Letters of Recommendation

Applicants must submit two letters of recommendation from professionals to OptomCAS (www.optomcas.org). One letter must be from a practicing optometrist. The other letter must be from a prehealth advisor, a professor, an employer, or an extracurricular activity advisor. Letters of recommendation from relatives, personal and/or family friends are not acceptable.

4. Completed Application

All application materials, including the OptomCAS application, admission test scores (as reported to Midwestern University), and two letters of recommendation (as submitted to OptomCAS) must be received by the Office of Admissions on or before April 30, 2024. Only completed applications received by the Office of Admissions on or before the deadline date will be reviewed for potential entrance into the program.

Please Note: Applicants are responsible for tracking the receipt of application materials and verifying the status on the University website. The Office of Admissions will send qualified applicants instructions for checking the status of application materials online.

Applicants are responsible for notifying the Office of Admissions of any changes in mailing address or e-mail address.

Midwestern University

Office of Admissions

555 31st Street Downers Grove, IL 60515

630/515-7200 or 800/458-6253

admissil@midwestern.edu

Rolling Admissions

CCO uses a rolling admissions process in which applications are processed and reviewed during regular intervals in the admissions cycle until the class is filled.

Interview Process

Before an invitation is issued to attend an on-campus interview, applicants must meet the admission requirements listed previously. After the Office of Admissions receives all required application materials, applicant files are reviewed to determine whether an applicant merits an invitation for an interview. Applicants may also be placed on a waiting list pending possible openings in a later part of the admissions cycle. Interviews are typically held between September and May of a given admission cycle. Invited applicants must attend an on-campus interview, unless otherwise specified, to achieve further consideration in the admissions process.

The interview day, which includes a closed-file interview session, generally takes six hours. Applicants will be evaluated on verbal communication skills, understanding of the optometry profession, commitment to patient care, and other elements as determined by the College. Applicants will also learn more about Midwestern University, CCO, financial aid programs, student services, and campus housing, as well as tour the Midwestern University Downers Grove Campus and Eye Institute.

Following the interview, an applicant's file will be forwarded to the Admissions Committee for review. The committee may recommend accepting, denying, or placing students on an alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants within two weeks of the interview date, provided that the file is complete.

Any request for withdrawal of an application must be made in writing.

Technical Standards

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the College. The health care provider must be able to perform tasks in an efficient and timely manner to diagnose, treat, and manage patients.

Therefore, the following abilities and expectations must be met by all students admitted to the College with reasonable accommodation. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, quantitative; 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas but the candidates must be able to perform in a reasonably independent, timely manner.

1. **Observation:** The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision, hearing and sense of touch and is enhanced by the functional use of all of the other senses.
2. **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. **Motor:** Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of hearing, touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of the candidate's intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, and interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to verify the ability to meet these Technical Standards at least 4 weeks prior to matriculation (or if admitted later, within 1 week of deposit). Candidates who may only meet Technical Standards with accommodation, must contact the Office of Student Services to make a formal request for accommodation. The Dean of Students, in consultation with the College Dean/Program Director, will determine what reasonable accommodations can be provided. The College is not able to grant accommodations that alter the educational standards of the curriculum.

Students must meet the Technical Standards for the duration of enrollment at the College. After matriculation, if a student fails to continue to meet the Technical Standards during subsequent enrollment, the student may apply for accommodation by contacting the Office of Student Services. If the accommodation needed to meet the Technical Standards alters the educational standards of the curriculum, the student's ability to satisfactorily progress in the curriculum will be evaluated by the appropriate College's Student Graduation and Promotion Committee.

Dual Acceptance Program

Dual Acceptance Programs with Selected Affiliated Universities

The Dual Acceptance Program (DAP) is an early acceptance program for selected students who successfully complete the specified pre-optometry coursework. The Dual Acceptance Programs are currently in effect with Benedictine University, DePaul University, Elmhurst University, Lake Forest College, Lewis University, and Arizona Christian University.

Online Application

Benefits of the DAP:

- Provides for an excellent foundation in pre-optometry education.
- Sets out a clear road map for which courses to take and when.
- Exempts the student from the Optometry Admissions Test (OAT) and associated fees.
- Exempts the student from the OptomCAS application process and associated fees.
- Guarantees entry to MWU CCO well in advance with successful completion of all program requirements.

To receive consideration for the Dual Acceptance Program with Benedictine University, DePaul University, Elmhurst University, Lake Forest College, or Lewis University, one must meet the following eligibility requirements:

Track 1:

This track is available to high school students who apply by March 1 of senior year of high school. To receive consideration for the Dual Acceptance Program, Track 1, students must meet the following requirements:

- Earn admission to the undergraduate institution as a first-year student.
- Must obtain a minimum score of 26 (ACT) or 1250 (SAT) on a College Entrance Exam.
- Obtain a minimum high school GPA of 3.20/4.00.
- Demonstrate a people or service orientation through community service or extracurricular activities.
- Demonstrate commitment to the optometry profession as demonstrated by previous work, volunteer, or other life experiences.
- Possess the oral and written communication skills necessary to interact with patients and colleagues.

Track 2:

This track is available to students who have recently enrolled at their undergraduate institution. To receive consideration for the Dual Acceptance Program, Track 2, students must meet the following requirements:

- Must be completing spring term coursework, and must have not been enrolled in any other post-secondary institution.
- Minimum undergraduate overall and science GPA of 3.40/4.00.
- Must have obtained a minimum score of 26 (ACT) or 1250 (SAT) on a College Entrance Exam.
- Demonstrate a people or service orientation through community service or extracurricular activities.
- Demonstrate commitment to the optometry profession as demonstrated by previous work, volunteer, or other life experiences.
- Possess the oral and written communication skills necessary to interact with patients and colleagues

After the Midwestern University Office of Admissions receives all completed application materials, applicant files are reviewed to determine whether applicants merit invitations for an interview. Qualified applicants must complete an on-campus or video teleconference (for out of state students) interview at CCO.

Following the interview, their completed application is forwarded to the CCO Admissions Committee for review. The committee may recommend to accept or to deny applicants for admission. These recommendations are then forwarded to the Dean for final approval. The Dean-via the Office of Admissions-notifies applicants within two to four weeks of the interview. Accepted applicants will be ensured a seat at CCO upon successful completion of the program requirements:

1. All prerequisite pre-optometry courses must be completed at the enrolled institution (See below). AP credits that are listed on the transcript are acceptable for meeting the prerequisites.
2. Track 1 students will have up to four years to complete all pre-optometry coursework at the enrolled institution, and earn a baccalaureate degree. Track 2 students will have up to three years to complete all pre-optometry coursework at the enrolled institution, and earn a baccalaureate degree.
 - Authorization to extend an undergraduate degree beyond 4 years is at the discretion of the Dean, CCO. Requests must be submitted to the CCO office of the Dean; decisions will be made on a case-by-case basis.
3. A minimum overall GPA of 3.40 on a 4.00 scale must be attained.
4. A minimum science GPA of 3.40 on a 4.00 scale must be attained.
5. Students must earn a grade of "C" or higher in all required courses.
6. Students are not permitted to repeat courses for a higher grade for which credit has already been received.
7. Students are not permitted to withdraw from more than 2 courses during the 4-year undergraduate program.
 - Authorization to withdraw from more than 2 courses is at the discretion of the Dean, CCO. Requests must be submitted to the CCO office of the Dean; decisions will be made on a case-by-case basis.
8. Accepted students are required to sign a letter of understanding with CCO upon acceptance. Accepted students will submit a deposit fee to CCO at least 1 year prior to matriculation at CCO. All fees are applied toward the student's first quarter tuition at CCO.

Students who are not accepted to or fail to complete the Dual Acceptance Program may apply to CCO using the standard procedures.

To receive consideration for the Dual Acceptance Program with Arizona Christian University, high school senior students must meet the following eligibility requirements:

1. Earn admission to Arizona Christian University.
2. Apply online to the CCO Dual Acceptance Program as a high school senior.
3. Obtain a minimum score of 28 on the ACT or 1250 on the SAT.
4. Demonstrate a people or service orientation through community service or extracurricular activities.
5. Demonstrate motivation for and commitment to the optometry profession as demonstrated by previous work, volunteer, or other life experiences.
6. Possess the oral and written communication skills necessary to interact with patients and colleagues.

After the Midwestern University Office of Admissions receives all completed application materials, applicant files are reviewed to determine whether applicants merit invitations for an interview. Qualified applicants must complete an on-campus or video teleconference (for out of state students) interview at CCO.

Following the interview, the completed application is forwarded to the CCO Admissions Committee for review. The committee may recommend to accept or to deny applicants for admission. These recommendations are then forwarded to the Dean for final approval. The Dean-via the Office of Admissions-notifies applicants of their status within two to four weeks of their visits. Accepted applicants will be ensured a seat at CCO upon successful completion of the program requirements:

1. All prerequisite pre-optometry courses must be completed at Arizona Christian University prior to matriculation to CCO. Official AP and dual-enrollment credits completed during high school, and that are listed on the affiliated university's transcript as equivalent courses, are acceptable for meeting the prerequisites.
2. Complete the baccalaureate degree at Arizona Christian University within 4 years
 - Authorization to extend an undergraduate degree beyond 4 years is at the discretion of the Dean, CCO. Requests must be submitted to the CCO office of the Dean; decisions will be made on a case by case basis.
3. A minimum overall GPA of 3.40 on a 4.00 scale must be attained.
4. A minimum science GPA of 3.40 on a 4.00 scale must be attained.
5. Students must earn a grade of "C" or higher in all required courses. A grade of "C-" or lower is not acceptable.
6. Students are not permitted to withdraw from more than 2 courses during the 4-year undergraduate program.
 - Authorization to withdraw from more than 2 courses is at the discretion of the Dean, CCO. Requests must be submitted to the CCO office of the Dean; decisions will be made on a case by case basis.
7. Students are not permitted to repeat courses for a higher grade for which credit has already been received.
8. Accepted students are required to sign a letter of understanding upon acceptance. Accepted students will submit a deposit fee within 1 year prior to matriculation. All fees are applied toward the student's first quarter tuition.

Students who are not accepted to or fail to complete the Dual Acceptance Program may apply to CCO using the standard procedures.

Students enrolled at Benedictine University must successfully complete the following courses listed below with a grade of "C" or higher:

Requirement	Undergraduate Course	Minimum Semester Hours
Biology with lab	BIOL 1195, 1197, 1198, 1199	8 hrs.
General/Inorganic Chemistry with labs	CHEM 1113, 1114, 1123, 1124	8 hrs.
Organic Chemistry with lab	CHEM 2242, 2243	4 hrs.
Physics	PHYS 1113, 1114, 1118, 1119	8 hrs.
Calculus	MATH 2210	4 hrs.
Microbiology	BIOL 3208	4 hrs.
Statistics	BIOL 2229 or MATH 1150 or PSYC 2250	3 hrs.
Psychology	PSYC 1100	3 hrs.
English Composition	WRIT 1101, 1102	6 hrs.
<i>Total Hours</i>		48 hrs.

Students enrolled at DePaul University must successfully complete the following courses listed below with a grade of "C" or higher:

Requirement	Undergraduate Course	Minimum Quarter Hours
Biology with lab	BIO 191,192,193	12 hrs.
General/Inorganic Chemistry with labs	CHE 130,131,132,133,134, and 135	12 hrs.
Organic Chemistry with lab	CHE 230,231,232,233,234, and 235	6 hrs.
Physics	PHY 150, 151, 152	9 hrs.
Calculus	MATH 147 or MATH 150	4 hrs.

Requirement	Undergraduate Course	Minimum Quarter Hours
Microbiology	BIO 210	4 hrs.
Statistics	Multiple options available	4 hrs.
Psychology	Multiple options available	4 hrs.
English Composition	WRD 103, 104	9 hrs.
<i>Total Hours</i>		64 hrs.

Students enrolled at Elmhurst University must successfully complete the following courses listed below with a grade of "C" or higher:

Requirement	Undergraduate Course	Minimum Semester Hours
Biology with lab	BIO 200, 201	8 hrs.
General/Inorganic Chemistry with labs	CHM 211, 212	8 hrs.
Organic Chemistry with lab	CHM 311	4 hrs.
Physics	PHY 121 or 111, 122 or 112	6 hrs.
Calculus	MTH 151	3 hrs.
Microbiology	BIO 221 or 321	3 hrs.
Statistics	MTH 345 or 346, or PSY 355	3 hrs.
Psychology	Any Psychology course (other than PSY 355)	3 hrs.
English Composition	ENG 105, 106	6 hrs.
<i>Total Hours</i>		44 hrs.

Students enrolled at Lake Forest College must successfully complete the following courses listed below with a grade of "C" or higher:

Requirement	Undergraduate Course	Minimum Semester Hours
Biology with lab	BIOL 120 and BIOL 221	8 hrs.
General/Inorganic Chemistry with labs	CHEM 115 and CHEM 116	8 hrs.
Organic Chemistry with lab	CHEM 220 and CHEM 221	4 hrs.
Physics	PHYS 110 and PHYS 111	6 hrs.
Calculus	MATH 110 Future 2xx	3 hrs.
Microbiology	Microbiology or BIOL 323	3 hrs.
Statistics	MATH 150 or PSYC 221 or other Statistics course	3 hrs.
Psychology	PSYC 110	3 hrs.
English Composition	Two English or HIPP SHIP writing (FFC:W) courses	6 hrs.
<i>Total Hours</i>		44 hrs.

Students enrolled at Lewis University must successfully complete the following courses listed below with a grade of "C" or higher:

Requirement	Undergraduate Course	Minimum Semester Hours
Biology with lab	BIOL 11000/11100; BIOL 11500/11600	8 hrs.
General/Inorganic Chemistry with labs	CHEM 11000/11100; CHEM 11500/11600	8 hrs.
Organic Chemistry with lab	CHEM 22000/22100	4 hrs.
Physics	PHYS 20000/20100; PHYS 20500/20600	6 hrs.

Requirement	Undergraduate Course	Minimum Semester Hours
Calculus	MATH 20000 or MATH 21100	3 hrs.
Microbiology	BIOL 22400/22600	3 hrs.
Statistics	BIOL 32000	3 hrs.
Psychology	PSYC 10000	3 hrs.
English Composition	ENGL 11100 and ENGL 11200	6 hrs.
<i>Total Hours</i>		44 hrs.

Articulation Agreements

ARTICULATION AGREEMENT WITH BENEDICTINE UNIVERSITY'S MASTER OF SCIENCE IN INTEGRATIVE PHYSIOLOGY PROGRAM

CCO will offer guaranteed interviews to students enrolled in Benedictine University's Master of Science in Integrative Physiology (M.S.I.P.) Program who apply as a traditional applicant to CCO and who satisfy these requirements:

1. Must meet all admission requirements of CCO.
2. Must submit a completed application to OptomCAS by April 1 for enrollment at CCO in Fall Quarter immediately following the completion of the M.S.I.P. Program.
3. Have an M.S.I.P. program GPA of at least 3.5 (out of 4.0) at the time of application to CCO.
4. Have completed all courses in the M.S.I.P. Program with a minimum grade of C or higher.
5. Have a cumulative GPA of 3.2 or higher, including courses taken before and during the M.S.I.P. Program.
6. Provide OAT scores showing a Minimum Academic Average and Total Science scores of 300 each. OAT test scores must be earned no more than 5 years prior to the planned enrollment year.
7. Submit two letters of recommendation. One letter must be from a practicing optometrist. The other letter must be from the Director of the M.S.I.P. Program.
8. Demonstrate a good understanding of optometric medicine. Candidates are strongly encouraged to shadow and observe a number of practicing optometrists in the clinical setting.
9. Demonstrate a commitment to service through extracurricular and/or community activities.

ARTICULATION AGREEMENT WITH DEPAUL UNIVERSITY'S PATHWAY HONORS PROGRAM

CCO will offer guaranteed interviews to students enrolled in DePaul University's Pathway Honors program who apply as a traditional applicant to CCO and who satisfy these requirements:

1. Must meet all admissions requirements of CCO
2. Must submit a completed application to OptomCAS by April 1 for enrollment at CCO in the Fall Quarter immediately following the completion of the baccalaureate degree at DePaul.
3. Have a cumulative GPA of 3.5 or higher (for all courses) at the time of application to Midwestern University.
4. Have no final course grade less than a "C" in the Pathways Honors program.
5. Complete the Optometry Admission Test (OAT) within the last 5 years with minimum Academic Average and Total Science scores of 300.
6. Submit two letters of recommendation. One must be from a practicing optometrist.
7. Demonstrate good understanding of optometric medicine. Candidates are strongly encouraged to shadow and observe a number of practicing optometrists in the clinical setting.
8. Demonstrate a commitment to service through extracurricular and/or community activities.

Reapplication Process

After receiving either denial or end-of-cycle letters, applicants may reapply for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of a MWU admissions counselor.

Transfer Admission Policy

CCO may elect to accept transfer students from other U.S. accredited schools of optometry who are currently enrolled, are in good academic standing, have no ethics or professionalism violations, and provide acceptable reason(s) for seeking transfer. These transfer students must satisfy the minimum qualifications for admissions as all other applicants to the CCO program. Typically, students will transfer at the beginning of the second year of the curriculum.

Students requesting transfers must meet the College's general requirements for admission. The following must also be submitted.

1. A letter to the Director of Admissions outlining the reasons for requesting transfer and explaining any difficulties encountered at the previous institutions
2. Course syllabi for all optometry coursework for which advanced standing credit is requested
3. Official admission test scores from any one of the following: OAT, MCAT, DAT, PCAT, or GRE
4. Official transcripts from all schools attended -undergraduate, graduate, and professional
5. A letter from the dean of the college in which the student is enrolled that describes current academic status and terms of withdrawal or dismissal
6. Additional documents or letters of recommendation as determined necessary by the Director of Admissions or Dean

Following receipt of these materials, a decision by the Dean is made regarding whether or not the student merits an on-campus interview. If the student receives an invitation, the individual interviews with an appropriate interview team. The interview team then makes an admissions recommendation to the Dean, who is responsible for approving both the student's admissions status and class standing.

The transfer application must be received sufficiently early to allow for processing of the application, interview, and moving of the student prior to the start of the next academic term.

Readmission After Dismissal for Poor Academic Performance

Students dismissed for poor academic performance may reapply for admission to CCO if the student;

- Seeks academic counseling from the Office of the Dean prior to enrolling in an advanced health-related curriculum;
- Completes at least two semesters or three quarters of full-time study (i.e., at least 15 credit hours per semester or quarter) of a curriculum at the advanced level at a regionally accredited U.S. college or university;
- Earns grades of at least C (not C-) in all courses taken;
- Maintains a cumulative GPA of 2.50 or better.

Students fulfilling these requirements will be permitted to reapply to the University and CCO. Students should obtain the applications from the Office of the Dean and not through OptomCAS. Completed readmission applications must be submitted by May 15th to the Office of the Dean. The completed application will be forwarded to the Admissions Committee for review and recommendation. Committee recommendations are forwarded to the Dean for final action.

No guarantee of admission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Readmission will be granted only once.

Graduation Requirements

To be eligible for graduation and to receive the degree Doctor of Optometry (O.D.), the student must meet the following requirements:

- Follow an approved course of study acceptable to the College's Student Promotion and Graduation Committee and leading to the completion of all academic requirements for the degree;
- Complete all academic requirements with passing grades and earn a cumulative GPA of at least 2.00;
- Provide proof of passing Part I of the National Boards administered by the National Board of Examiners in Optometry (NBEO). It is the responsibility of the individual student to pass any national board examination;
- Provide proof of taking either Part II of the National Boards administered by the NBEO or the Written Assessment portion of the Canadian Examiners in Optometry (CEO) Optometry Examining Board of Canada (OEBC) examination;
- Submit proof of passage of Part I of the National Boards plus proof of the taking of Part II of the National Boards administered by NBEO or the Written Assessment portion of the OEBC examination to the Office of the Dean by February 1st of the year of graduation in order to be eligible to walk-through and participate in the graduation ceremony with the class and receive a diploma;
- Be recommended for conferral of the degree Doctor of Optometry by the University Faculty Senate;
- Settle all financial accounts with the University;
- Complete all graduation clearance requirements as instructed by the Office of the Registrar.

In the event that a student does not pass Part I of the National Boards, the student may continue in the program. However, a student must pass Part I of the National Boards in order to graduate.

If a student is scheduled to take Part I of the National Boards in March or August of the year of graduation, the student is eligible to walk through and participate in the graduation ceremony with the class, but will not receive a diploma until documentation is provided to show passage of Part I of the National Boards.

If a student is scheduled to take Part II of the National Board exam in December of the year of graduation, the student is eligible to walk-through and participate in the graduation ceremony with their class but will not receive a diploma until documentation is provided to show completion of Part II of the National Boards.

Licensure Requirements

To obtain licensure, graduates must have completed the requirements established by each state or national licensing board. Licenses require successful passage of a country's national board examinations and may require the passage of additional state licensing exams. Postdoctoral requirements may vary among US states. The National Board of Examiners in Optometry (NBEO) administers complete integrated examinations in three parts that reflect the different stages of a candidate's optometric education and training. The earliest date for a student candidate to take the Part I examination is March of the third professional year at an accredited institution. The earliest date for a candidate to take the Part II examination is in December during the candidate's fourth year at an accredited institution. Students are eligible to take the Part III examination on or after August 1st, of the fourth year.

Students intending to practice in Canada must seek a Certificate of Competence in Optometry in some provinces. This requires that those students take and pass the Optometry Examining Board of Canada (OEBC) examination.

It is the responsibility of the individual student to pass national board examinations. For additional information regarding licensure, contact the following agencies:

National Board of Examiners in Optometry
200 S. College Street, #2010
Charlotte, NC 28202
Phone: 800-969-EXAM (3926) or 704-332-9565
Fax: 704-332-9568
E-mail: nbeo@optometry.org
Website: www.optometry.org

or:

Optometry Examining Board of Canada
37 Sandiford Drive, Suite 403
Stouffville, Ontario
L4A 3Z2
Phone: 905-642-1373
Fax: 905-642-3786
E-mail: exams@oebc.ca
Website: <http://www.oebc.ca>

Midwestern University's Doctor of Optometry meets the educational requirements for licensure to practice as an optometrist in the following states and territories: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, U.S. Virgin Islands, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming.

Each student should check the additional licensure requirements for the state, district, or territory in which the students intends to pursue employment.

Special Note: Licensure in Oklahoma requires that you must have passed the Laser Therapy for the Anterior Segment Course offered by the Northeastern State University.

Curriculum

Degree Type

Doctor of Optometry (O.D.)

The College reserves the right to alter the curriculum as it deems appropriate.

First Year

Fall Quarter

Course Code	Title	Credits
CORED 1599K	Interprofessional Education I	1.0
OPTOD 1510	Clinical Optometry I	3.5
OPTOD 1511	Contemporary Issues in Healthcare & Ethics	1.0
OPTOD 1516	Professionalism I	0.5
OPTOD 1540	Optics I	4.0
OPTOD 1561	Ocular Anatomy & Physiology I	3.5
PATHD 1501	Pathology/Histology I	2.5
PHYSD 1530	Human Physiology I	3.0

Winter Quarter

Course Code	Title	Credits
ANATD 1504	Gross Anatomy	3.5
CORED 1500K	IPE Healthcare Communication	1.0
MICRD 1590	Immunology	2.0
OPTOD 1517	Professionalism II	0.5
OPTOD 1520	Clinical Optometry II	3.0
OPTOD 1541	Optics II	4.0
OPTOD 1562	Ocular Anatomy & Physiology II	2.0
PHYSD 1531	Human Physiology II	3.0

Spring Quarter

Course Code	Title	Credits
BIOCD 1590	Biochemistry for Optometry	1.5
MICRD 1582	Microbiology	1.5
OPTOD 1514	Optometry Business Management I	1.0
OPTOD 1518	Professionalism III	0.5
OPTOD 1522	Visual Perception	2.0
OPTOD 1530	Clinical Optometry III	3.0
OPTOD 1542	Optics III	2.0
OPTOD 1550	Visual Neuroanatomy & Visual Neurophysiology	3.5
PATHD 1502	Pathology/Histology II	2.5

Second Year

Fall Quarter

Course Code	Title	Credits
OPTOD 1616	Professionalism IV	0.5
OPTOD 1620	Basic Binocular Function	3.0
OPTOD 1630	Ocular Disease I	3.0
OPTOD 1635	Ocular Therapeutics I	1.0
OPTOD 1640	Clinical Optometry IV	3.0
OPTOD 1643	Ophthalmic Optics I	4.0
OPTOD 1680	Capstone Project: Research Design, Biostatistics & Literature Search	1.0
PHARD 1641	Pharmacology I	3.0

Winter Quarter

Course Code	Title	Credits
CORED 1699K	Interprofessional Education II	1.0
OPTOD 1617	Professionalism V	0.5
OPTOD 1621	Ocular Motility	2.0
OPTOD 1631	Ocular Disease II	3.0
OPTOD 1636	Ocular Therapeutics II	1.0
OPTOD 1644	Ophthalmic Optics II	4.0
OPTOD 1648	Contact Lens I	3.0
OPTOD 1650	Clinical Optometry V	3.0
OPTOD 1681	Capstone Project: Study Design	1.0
PHARD 1642	Pharmacology II	2.0

Spring Quarter

Course Code	Title	Credits
OPTOD 1618	Professionalism VI	0.5
OPTOD 1623	Diagnosis and Management of Non-Strabismic Binocular Vision Disorders	4.0
OPTOD 1632	Ocular Disease III	3.0
OPTOD 1633	Surgical Management of the Eyelid & Ocular Adnexa	1.5
OPTOD 1637	Ocular Therapeutics III	3.0
OPTOD 1649	Contact Lens II	3.0
OPTOD 1660	Clinical Optometry VI	3.0
OPTOD 1661	Clinical Services Proficiency	0.5

Third Year

Summer Quarter

Course Code	Title	Credits
OPTOD 1700	Clinical Medicine Procedures	2.5
OPTOD 1724	Pediatric Optometry	2.5
OPTOD 1733	Ocular Disease IV	2.5
OPTOD 1750	Contact Lens III	3.0
OPTOD 1770	Clinical Services I	6.0
OPTOD 1787	Neuro-ophthalmic Disease	2.0
OPTOD 1716	Professionalism VII	0.5

Fall Quarter

Course Code	Title	Credits
OPTOD 1725	Diagnosis of Strabismus & Amblyopia	3.5
OPTOD 1734	Ocular Disease V	2.0
OPTOD 1735	Advanced Specialized Test Interpretation	1.0
OPTOD 1745	Epidemiology, Public Health & the Optometric Profession	2.0
OPTOD 1771	Clinical Services II	6.0
OPTOD 1778	Capstone Project: Data Collection & Analysis	1.0
OPTOD 1790	Clinical Case Analysis I/Evidence-Based Medicine	2.0
OPTOD 1717	Professionalism VIII	0.5

Winter Quarter

Course Code	Title	Credits
OPTOD 1701	Behavioral Medicine	1.0
OPTOD 1726	Treatment & Management of Strabismus & Amblyopia	2.5
OPTOD 1772	Clinical Services III	6.0
OPTOD 1774	Specialty Clinical Services Proficiency	0.5
OPTOD 1785	Low Vision Rehabilitation	3.0
OPTOD 1718	Professionalism IX	0.5

Spring Quarter

Course Code	Title	Credits
OPTOD 1714	Optometry Business Management II	2.0
OPTOD 1727	Visual Information Processing & Learning-Related Vision Problems	3.0
OPTOD 1736	Ophthalmic Application of Lasers	1.0
OPTOD 1773	Clinical Services IV	6.0
OPTOD 1779	Capstone Project: Dissemination of Results	2.0
OPTOD 1791	Clinical Case Analysis II/Treatment Plans	2.0
OPTOD 1719	Professionalism X	0.5

Fourth Year

Summer Quarter

Course Code	Title	Credits
OPTOD 1800	Clinical Services V	18.0
OPTOD 1816	Professionalism XI	0.5

Fall Quarter

Course Code	Title	Credits
OPTOD 1810	Clinical Services VI	18.0
OPTOD 1817	Professionalism XII	0.5

Winter Quarter

Course Code	Title	Credits
OPTOD 1820	Clinical Services VII	18.0
OPTOD 1818	Professionalism XIII	0.5

Spring Quarter

Course Code	Title	Credits
OPTOD 1830	Clinical Services VIII	18.0
OPTOD 1819	Professionalism XIV	0.5

Professional Electives

While enrolled at CCO, students may be required or may choose to take specific courses that enhance skills or elective courses for enrichment. No minimum number of these course credits is required for graduation. Options may include, but are not limited to, the following:

Course Code	Title	Credits
CORED 1111	Diversity, Equity, and Inclusion in Healthcare	1.0
OPTOD 1401	Research	1.0-4
OPTOD 1411	Research	1.0-4
OPTOD 1412	Optometry Competency	1.0-12
OPTOD 1416	Selected Studies	1.0-3
OPTOD 1430	Study Skills Enhancement	2.0
OPTOD 1431	Applied Basic Science Review	1.0-3
OPTOD 1440	Advanced Topics for Ocular Surface Disease	0.5
OPTOD 1441	Advanced Topics for GP Contact Lenses	1.5
OPTOD 1443	Advanced Topics: Pediatric Eye Disease Pediatric Eye Disease	1.0
OPTOD 1793	Third Year Clinical Skills Enhancement	1.0-7
OPTOD 1451	Spanish for Optometric Eye Exams	1.5
OPTOD 1452	Introduction to Sports Vision	0.5
OPTOD 1453	Neuro-Optometric Rehabilitation	1.0
OPTOD 1460	Fourth Year Clinical Skills Enhancement	1.0-18
	Total Credits	254

Student Academic Policies

The following academic policies apply to all students who matriculate during the academic year of this catalog publication. These policies will apply throughout the entire time a student is enrolled in the college. In the event that these policies need to be revised as the result of new accreditation requirements, mandates of the United States Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Northwestern University.

Student Promotion and Graduation Committee

The Student Promotion and Graduation Committee (SPGC) is responsible for enforcing the published academic and professional standards established by the faculty and for assuring that they are met by all students enrolled in the program. As such, this Committee establishes the criteria and policies and procedures for student advancement and graduation, as well as academic probation, dismissal, and readmission. This Committee meets at a minimum at the end of each academic quarter to review the academic progress and performance of students enrolled in the program in relation to institutional academic policies. At the end of the academic year, the Committee assesses the academic and professional progress and performance of each student. If the student's progress is satisfactory, the student is promoted to the next academic year, provided all tuition and fees have been paid. Finally, the Committee also identifies and recommends to the MWU Faculty Senate candidates for graduation.

If a student fails to make satisfactory progress in completing the prescribed course of study, the Committee shall take appropriate action to correct the deficiency(ies). In instances involving repeated failures of a student to maintain satisfactory academic/professional progress, the Committee may recommend dismissal.

If a student's academic performance is scheduled for discussion during a Student Promotion and Graduation Committee meeting and the result could change the student's status in the college (extended program or dismissal), then the student will be invited to either appear personally before the Committee or submit a letter or documentation to be presented at the meeting. The invited student must indicate, in writing, their intention to appear or provide materials 24 hours prior to the scheduled meeting to the Associate Dean of Academic Affairs. The information will be provided to the Chair and committee members of the SPGC. Among the options available to the Committee in regard to unsatisfactory student performance are:

Among the options available to the Committee in regard to unsatisfactory student performance are:

1. A written letter of caution provided to the student.
2. That the student
 - be placed on academic probation for a specified period of time,
 - take an alternative approved course offered at another college or university,
 - repeat the course(s) in which there is a failure when the course is offered again in the curriculum,
 - be placed in an extended program,
 - require that the student take additional coursework (e.g., OPTOD 1582, 1583, 1584, 1585), or
 - be dismissed from the College.

Within two working days following the Committee meeting, the Associate Dean is responsible for providing notification in writing with a delivery confirmation (i.e., next-day express mail, e-mail, or hand-delivery) to the involved student, informing the individual of the recommendation of the Committee. The Associate Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices. The Dean or Associate Dean is responsible for providing written notification to all appropriate academic support offices (i.e., Registrar, Student Financial Services, etc.).

Academic Standards

An annual didactic grade point average will be used as the central measure of academic performance. It is calculated from all didactic courses from a particular professional year. Grades earned in courses taken prior to matriculation in the professional program, grades earned for courses taken at another institution while enrolled in the professional program, and grades earned for courses taken at the College in a more advanced professional year than that in which the student is enrolled, are not included in the calculation of this annual grade point average.

Students must maintain an annual grade point average of 2.00 and earn a passing grade in each required course to remain in good academic standing.

Students who have an "F" course grade at the end of a quarter must resolve the failure prior to advancing in the program.

Students who have one, two or three "F" grades in a quarter will be reviewed by the Student Promotion and Graduation Committee and will be either dismissed or will be placed in an extended program. The extended program year must take place in the year immediately following and the student will be required to repeat all the courses in which the grades of "F" were received. The student may be required to repeat courses that would serve to enhance the mastery of optometry knowledge, skills techniques, and concepts and that are deemed critical for success in the Doctor of Optometry curriculum. A student is allowed to go through an extended program only once. To be returned to good academic standing, a student must raise the student's annual grade point average to 2.00 or above at the end of the repeat year. Such a student reenters the next professional year curriculum and resumes a full load. A reentering student must achieve a cumulative grade point average of 2.00 at the end of each quarter to continue at CCO.

If the student does not meet the criteria for satisfactory academic performance at the end of the extended program year, the student will be dismissed.

If a student earns a grade of "F" in one or more required courses, the student is notified, in writing that the individual is being placed on academic probation for the next academic quarter. Probation represents notice that continued inadequate academic performance may result in dismissal from the program and the College. A student placed on academic probation is prohibited from:

1. Holding an office in a class, student association, fraternal, or any other student organization.
2. Participating in off-campus professional meetings and activities beyond program or course requirements during the academic year.

If the student earns an "F" in four or more courses overall, and/ or fails a repeated course, the student will be dismissed from the College. The dismissal is based on the determination by the Committee that the student has not satisfactorily demonstrated that the individual possesses the aptitude to successfully achieve the standards and requirements set forth in the academic policies and professional expectations for the program.

A student must complete all courses in an academic year with a "C" grade or better, and a cumulative GPA of 2.00, to progress to the next academic year curriculum.

Academic recommendations are made by the Student Promotion and Graduation Committee to the Associate Dean of Academic Affairs. Students will be notified, in writing, within two working days following the committee meeting regarding the recommendations of the Committee.

The following policies also guide decisions made by the Student Promotion and Graduation Committee:

1. A student must pass all required courses before entering the next year of the professional program.
2. Students placed on an extended program must pass any and all additional required courses assigned by the Student Promotion and Graduation Committee.

Students must successfully resolve all "I" (Incomplete) and "IP" (In Progress) grades before beginning external clinical rotations.

Appeal of Dismissal or Placement on an Extended Program

Following notification of a decision for dismissal or placement on an extended program, a student may appeal, in writing, the decision to the Dean. Such appeals must be received by the Dean within three working days after the student is officially notified of the dismissal or deceleration decision. A narrative explaining the basis of the appeal should accompany the request. An appeal must be based on one of the following premises:

1. Bias of one or more Committee members.
2. Material information not available to the Committee at the time of its initial decision.
3. Procedural error.

The Dean will review the appeal request and narrative. If he/she deems that there are sufficient grounds to convene another meeting of the Student Promotion and Graduation Committee, the Dean will request that the committee consider the appeal. If a decision is made to convene a Committee meeting, the student requesting an appeal shall be notified in writing with a delivery confirmation (i.e., e-mail or hand delivery) by the Associate Dean at least two working days in advance of the scheduled Committee meeting in which the student's appeal will be heard. The student may request and shall be permitted to appear before the Committee (in person or via telephone) in order to present the basis of the appeal request. In such instances, the student shall inform the Associate Dean in writing (i.e., e-mail or hand delivery) of his/her desire to appear before the Committee or his/her intent to waive the right to appear. If the student chooses to appear before the Committee, this prerogative extends to the involved student only and not to any other individuals. The Committee then submits its recommendation to the Dean. Upon receipt of the Committee's recommendation, the Dean makes the final decision, typically within 5 working days.

If the Dean's initial review does not reveal a substantial basis for another SPGC meeting, he/she will rule on the appeal request independently. The Dean makes the final decision, typically within 5 working days.

During the appeal process, the student must continue to attend classes. Students registered in a rotation course may be placed on a mandatory leave of absence until the appeal process is finalized.

Dismissal

A student may be dismissed from the College for academic reasons upon the recommendation of the Student Promotion and Graduation Committee. The dismissal is based on the determination by the Committee that the student has not satisfactorily demonstrated that he or she possesses the aptitude to successfully achieve the standards and requirements set forth in the academic policies and professional expectations for the program.

Clinical Rotation Failure (refers to OPTOD 1770, 1771, 1772, 1773, 1800, 1810, 1820, and 1830 Clinical Services I-VIII) Clinical service courses are completed sequentially.

If a student receives an "F" in a clinical service course, he/she may appeal the failing grade, in writing, to the course director. This must be submitted within two business days after the grade is posted. The course director will act on this appeal and must inform the student, in writing, within 2 business days of this decision. If the appeal is accepted the course director may place the student on an individualized education plan (IEP) under the direction of the course director and may require that the student take coursework. The course director's options are not limited to the above and can be modified on a case-by-case basis. If the course director decides to uphold the "F", the student has the right to follow the appeal process outlined below in Grade Appeals. "F" grades, or those that are upheld through the appeal process will be forwarded to the Student Promotion and Graduation Committee who may exercise any combination of the following sequence:

1. Place the student in an extended program, if eligible.
2. Put the student on a leave of absence to undergo a period of independent study.

3. Require additional coursework or specified activities to enhance optometry knowledge, skills techniques, and concepts that are deemed critical for success as a Doctor of Optometry; and/or demonstrate mastery of the knowledge, skills techniques and concepts deemed critical for success as a Doctor of Optometry.
4. Require the student to repeat the failed clinical rotation.
5. Be dismissed from the program.

Extended Program

Problems may arise that may necessitate the deceleration of a student's academic course load. Accordingly, an individual's academic course load may be reduced so that the student enters what is termed an extended program or split academic course of study. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by one additional year. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met:

1. **Personal hardship.** If a student is experiencing unusual stresses in life and an extended academic load could alleviate added stress, the student may petition the College for an extended program. This petition is to be submitted to the Dean or Associate Dean of Academic Affairs, in writing, and may not be automatically granted, but may be approved in exceptional circumstances. The Dean or Associate Dean is responsible for reviewing and assessing the petition and may forward it to the Student Promotion and Graduation Committee if appropriate. The student will be informed of the decision, in writing, by the Associate Dean of Academic Affairs.
2. **Academic.** As described above, a student ending an academic year with an annual GPA of less than 2.00 may be given the option to repeat courses from that year in which "F" grades were received. A student may be placed on an extended program for academic reasons at the discretion of the Student Promotion and Graduation Committee. A student placed on an extended program for academic reasons is automatically placed on academic probation and may not be returned to good academic standing until the extended program is successfully completed.

If a student is placed on an extended program, such action does not modify or limit the committee's actions for dismissal. Thus, the student may be dismissed for academic reasons while on an extended program.

A student placed on an extended program for academic reasons will be returned to good academic standing when the student reenters the prescribed academic program and completes all courses that were unsatisfactory and are required for graduation.

A reentering student (after an extended program) must achieve a cumulative grade point average of 2.00 at the end of each quarter to continue at the college. A student is allowed to go through an extended program only once.

Licensing Board Eligibility Requirements

To be eligible to take any part of the National Board of Examiners in Optometry (NBEO) examination, students must successfully complete all CCO course requirements and meet requirements as established by the Office of the Dean.

Student Administrative Policies

Advanced Standing

All requests for advanced standing by newly admitted, transfer, or enrolled students are processed on a course-by-course basis by the Student Promotion and Graduation Committee. The Dean's Office provides staff support for such evaluations. To request such consideration, a student should submit a letter of request to the Dean in

which the student lists a course(s) previously taken at an accredited college or university which might be similar in content to a professional course(s) that the student is scheduled to take. The student is advised to provide an official course description(s) and a syllabus (syllabi) of the course(s) previously taken, as well. For some courses, a student may be required to take a comprehensive challenge exam. All requests must be submitted at least three weeks prior to the start of the course being considered. The decision of the committee is forwarded to the Dean as a recommendation to either grant or deny advanced standing. Advanced standing will be considered for coursework taken in which a letter grade of "B" or better has been earned. A 'B-' letter grade or lower is not acceptable for advanced standing consideration. Coursework taken should be no more than five years prior to the start of the course being considered. Coursework taken should be no more than five years prior to the start of the course being considered.

Attendance

Upon acceptance to the College, students are expected to devote their entire efforts to the academic curriculum. The College actively discourages employment that will conflict with a student's ability to perform while didactic courses and externships are in session and will not take outside employment or activities into consideration when scheduling classes, examinations, reviews, field trips, or individual didactic or experiential course functions. Class attendance is mandatory for all students during externship.

Class Standing

To achieve the status of a second-year student in the professional program, students must have successfully completed all requisite first-year courses and earned an annual GPA of 2.00. To achieve the status of a third-year student in the professional program, students must have successfully completed all requisite second-year courses and earned an annual GPA of 2.00. To achieve the status of a fourth-year student in the professional program, students must have successfully completed all requisite third-year courses, and earned an annual GPA of 2.00.

Disciplinary Probation

Disciplinary probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 of the Midwestern University Student Handbook or as defined in the Eye Institute Manual or the Clinical Rotation Student Clinician and Preceptor Manual. Disciplinary probation is not noted on the transcript but is kept in the student's file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Grades

Letter grades corresponding to the level of achievement in each course are assigned based on the results of examinations, required coursework, and, as applicable, other criteria established for each course as follows. Individual faculty have the prerogative to use a plus/minus letter grading system or a whole letter grading system.

Courses are recorded in terms of quarter hour(s) of credit. Multiplication of the credits for a course by the numeric value for the grade awarded gives the number of quality points earned for a course. Dividing the total number of quality points earned in courses by the total number of credits in those courses gives the grade point average.

Grades reported as "W" and "P" are recorded on a student's permanent record but are not used in the calculation of a student's grade point average. Similarly, a grade of "I" or "IP" may be assigned and is used only when special/extenuating circumstances exist (e.g., prolonged illness, family crisis, etc.), which prevent a student from completing the necessary course requirements on time in order to receive a grade.

If a student receives an "F" grade in a course, that grade will be recorded on the student's transcript. This deficiency may be corrected as recommended by the Student Promotion and Graduation Committee by repeating the failed course. When a course is repeated, the student may earn a maximum grade of "C". Following successful repetition of the course, the permanent record of the student will be updated to indicate that the failed course has been successfully repeated.

If a student is required or recommended, by the Student Promotion Graduation Committee, to retake a course that was previously passed, the grade earned each time is recorded, but only the most recent grade is used in the computation of the student's cumulative grade point average.

Grade and Quality Point Scale

Grade	Quality Points (per credit)	Comments
A	4.000	-
A-	3.670	-
B+	3.330	-
B	3.000	-
B-	2.670	-
C+	2.330	-
C	2.000	-
F	0.000	-
I	0.000	An Incomplete (I) grade may be assigned by an instructor when a student's work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an "I" grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete (I) grades will be resolved within 10 calendar days from the end of final exams for the quarter. In the case of courses ending prior to final exam week, it is the obligation of the course director to monitor the use and resolution of the incomplete grade with notice to the Registrar.
IP	0.000	An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.
P	0.000	Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of "P" is counted toward credit hour accruals for graduation but does not affect GPA calculations.
F	0.000	Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of "F" is counted toward credit hour accruals as attempted but not completed. Grade of "F" is calculated into the GPA (quality points are lowered due to unsuccessful course completion).
W	0.000	Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation
WF	0.000	Withdrawal/Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the Program/School. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. "WF" may be considered as a failure by a Student Academic Review Committee. Multiple "F's" and "WF's" can be grounds for dismissal.
AU	0.000	This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.
AP		This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement (AP) is applied toward credit hour accruals, but is not counted in the GPA calculation.

Graduation Honors

Graduation honors are awarded to graduating students who have distinguished themselves by virtue of high academic achievement while enrolled in the professional program at Midwestern University Chicago College of Optometry. Only grades from the academic courses taken at the University will be included in determining graduation honors. Grades in OPTOD 1770, 1771, 1772, 1773, 1800, 1810, 1820, and 1830 are not included in the calculation of the didactic course grade point average for graduation honors. Students who receive a failing grade in any course will not be eligible for graduation honors regardless of GPA.

Grade Point Average for Didactic Courses	Graduation Honor
>3.90	Summa cum laude
3.75 - 3.89	Magna cum laude
3.50 - 3.74	Cum laude

Grade Appeals

A student whose academic progress will be subject to review by the Student Promotion and Graduation Committee and who wishes to appeal a grade must do so in an expedited manner prior to the scheduled meeting of the committee. In this case, an appeal of a didactic course grade must be submitted within one business day following posting of the grade and must be based on one of the following premises:

1. Factual errors in course assessment tools
2. Mathematical error in calculating the final grade
3. Bias

The course director must act on this appeal within one business day. If the appeal is denied, the student has the right to appeal the decision to the Associate Dean of Academic Affairs. The Associate Dean of Academic Affairs should notify the student of the Associate Dean's decision within one business day following receipt of the student's reappeal. The decision of the Associate Dean of Academic Affairs is final.

An appeal of a failing clinical clerkship or rotation grade must be submitted within two business days after a grade for rotation is posted. The course director must act on this appeal within two business days. If the appeal is denied, the student has the right to appeal the decision to the Associate Dean of Clinical Affairs. The Associate Dean of Clinical Affairs should notify the student of the Associate Dean's decision within one business day following receipt of the student's reappeal. The decision of the Associate Dean of Clinical Affairs is final.

Any extension of the time for student appeal or course director's decision must be approved by the College Dean. All appeals and decisions must be communicated in written form.

Technology

Students must have a laptop computer that has internet capability to use in various learning activities. It is required that students bring their laptops to orientation for verification, and to download software needed to complete certain in-class and laboratory assignments.

Immunizations

Students enrolled in a program with a clinical component are required to follow the immunization policy as outlined in the immunization section of the University's Student Handbook. Immunization requirements for Chicago College of Optometry students are subject to applicable current state health department protocol and

affiliated rotation requirements. Students who do not follow the immunization policy by the stated deadline may jeopardize continued enrollment in the college. If, at any time, immunizations expire or are not up to date, the student may be suspended until such time the student is in full compliance with this requirement.

Faculty

Optometry Faculty

Arijit Chakraborty, MPhil, Ph.D.

The University of Auckland, New Zealand
Assistant Professor

Frederick Collison, O.D., FAAO

Illinois College of Optometry
Associate Professor

Jessica Conroy, O.D., FAAO

Illinois College of Optometry
Assistant Professor

Daniel Deligio, O.D., FAAO

Midwestern University Arizona College of Optometry
Assistant Director of Rotations and Associate Professor

Sarah El-Khazendar, O.D., FAAO

Illinois College of Optometry
Assistant Professor

John Gialousakis, O.D., Ed.M, FAAO

State University of New York College of Optometry
Director of Curriculum Development and Associate Professor

Jenny Geevarghese, O.D.

Midwestern University Arizona College of Optometry
Assistant Professor

Neha Gulati, O.D.

Illinois College of Optometry
Assistant Professor

Konstantina Kalas, O.D., FAAO

Illinois College of Optometry
Assistant Professor

Karen Kehbein, O.D., FAAO

Indiana University School of Optometry
Associate Professor

Jenelle Mallios, O.D., FAAO

New England College of Optometry
Associate Dean of Clinical Affairs and Associate

Professor Vakishan Nadarajah, O.D., FAAO

Illinois College of Optometry
Assistant Professor

Adrienne Quan, O.D., FAAO

Illinois College of Optometry
Assistant Professor

Clinton Prestwich, O.D., FAAO

Southern College of Optometry
Assistant Professor

Dana Rhea, O.D., FAAO

Arizona College of Optometry
Assistant Professor

Samantha Rice, O.D., FAAO

Illinois College of Optometry
Associate Dean of Academic Affairs and Associate Professor

Melissa Suckow, O.D., FAAO

New England College of Optometry
Dean and Assistant Professor

Suraj Upadhyaya, Ph. D., FAAO

Southwestern University College of Optometry Ph.D.
University of Houston
Assistant Professor

Margaret Wilczek, O.D.

Illinois College of Optometry
Associate Professor

Jenna Williams, O.D., FAAO

Illinois College of Optometry
Assistant Director of Clinical Operations and Assistant Professor

Parres Wright, O.D., FAAO

Nova Southeastern University College of Optometry
Assistant Professor

Hye Seon Yoo, O.D.

Illinois College of Optometry
Assistant Professor

College of Graduate Studies Faculty with Joint Appointments

Hilal Arnouk, M.D., Ph.D.

State University of New York
Associate Professor

Bryan C. Bjork, Ph.D.

University of Iowa
Associate Professor

Nalini Chandar, Ph.D.

University of Madras
Professor

Joanna Goral, Ph.D.

Loyola University Chicago
Associate Professor

Kyle K. Henderson, Ph.D.

Kansas University Medical Center
Associate Professor

Sandra Inouye, Ph.D.

Northwestern University
Professor

Phillip G. Kopf, Ph.D.

University of New Mexico
Associate Professor

Kathy J. LePard, Ph.D.

Ohio State University
Professor

Alejandro M. Mayer, Ph.D.

University of Buenos Aires
Professor

Paul F. McCulloch, Ph.D.

University of Saskatchewan, Canada
Professor

Rafael Mejia-Alvarez, M.D., Ph.D.

University of Mexico and Baylor College of Medicine
Professor

Marsha Louise Pierce, Ph.D.

Creighton University
Assistant Professor

Maura Porta, Ph.D.

Loyola University Chicago
Assistant Professor

Luigi Strizzi, M.D., Ph.D.

Gabriele D'Annunzio University
Associate Professor

Sinju Sundaresan, Ph.D.

Texas Woman's University
Assistant Professor

Michelle Swanson-Mungerson, Ph.D.

Loyola University Chicago
Professor

Julie A. Swartzendruber, Ph.D.

Northwestern University
Associate Professor

Martin Szul, Ph.D.

University of Tennessee
Instructor

Vaibhav Tiwari, Ph.D.

Banaras Hindu University, India
Associate Professor

Renier Velez-Cruz, Ph.D.

Vanderbilt University
Associate Professor

Susan M. Viselli, Ph.D.

Pennsylvania State University
Professor

Michael V. Volin, Ph.D.

The University of Chicago
Chair, Microbiology and Immunology

Courses

ANATD 1504: Gross Anatomy

This course provides fundamental knowledge of normal human structure and function through lectures and guided laboratory activities. Students are given an overview of the entire human body, with an emphasis on head and neck anatomy in the laboratory activities. Three-dimensional relationships on head and neck structures are reinforced by reviewing prosected cadaver specimens, images, and models.

Credits 3.5

BIOCD 1590: Biochemistry for Optometry

This course focuses on the structure function relationships of the eye in regard to biomolecules, metabolism, and cell biology.

Credits 1.5

CORED 1111: Diversity, Equity, and Inclusion in Healthcare

This course will provide a fundamental understanding of structural determinants of health and access to care while helping students of the dental, medical, optometry, pharmacy, graduate and health sciences colleges build interprofessional communicable skills. Our modern healthcare field is rife with disparities based on many social and structural differences underlying varying communities. This course aims to give historical context for these differences and disparities while fostering open dialogue and emphasizing patient advocacy for future colleagues in healthcare delivery.

Credits 1.0

CORED 1500K: IPE Healthcare Communication

This course will introduce first year optometry, dental, pharmacy, and medical students to the fundamental principles of effective communication in the health care setting. The course emphasizes the principles and elements of interpersonal, nonverbal, motivational communication, barriers to effective communication, including cultural awareness.

Credits 1.0

CORED 1599K: Interprofessional Education I

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. This course will describe the roles and responsibilities of the various healthcare disciplines. It will also provide students, from different health professions, the opportunity to interact with one another as well as simulated patients. This collaboration will promote communication using a team-based approach to the maintenance of health and management of disease.

Credits 1.0

CORED 1699K: Interprofessional Education II

This course will provide students, working in interprofessional teams, opportunities to learn and provide integrated, patient-centered care in the development of therapeutic care plans using a team-based approach. Active learning techniques, interprofessional learning, and clinical simulation will be used to enhance the education of learners to effectively engage in problem solving and communication activities that address current health related issues in the care of humans, animals, and the environment.

Credits 1.0

Prerequisites

CORED 1599K Interprofessional Education I

MICRD 1582: Microbiology

This course is designed to provide a basic knowledge of clinical microbiology so that students can understand the interaction between the host and pathogenic microorganisms. Emphases include the rational management, prevention, and control of infectious diseases.

Credits 1.5

MICRD 1590: Immunology

This course presents basic aspects of the body's defense mechanisms. Current advances in immunotherapy and immunoprophylaxis are emphasized. The role the immune system plays in rejection of organ transplants, autoimmunity, and hypersensitivity are also discussed.

Credits 2.0

OPTOD 1401: Research

This course provides an opportunity for optometry students to work with individual faculty mentors on projects of variable scope. Included activities could be library, laboratory, clinical, and/or survey-type research or other activities agreed on between the student and mentor and approved by the appropriate department chair.

Credits 1.0-4

Prerequisites

Permission of the course director

OPTOD 1411: Research

This course provides an opportunity for optometry students to work with individual faculty mentors on projects of variable scope. Included activities could be library, laboratory, clinical, and/or survey-type research or other activities agreed on between the student and mentor and approved by the appropriate department chair.

Credits 1.0-4

Prerequisites

Permission of the course director

OPTOD 1412: Optometry Competency

These courses serve to enhance the mastery of optometry knowledge, skills, techniques, and concepts. A course in this sequence may be assigned by the Student Promotion and Graduation Committee to a student who has been academically decelerated after receiving a non-passing grade in a required course within the Doctor of Optometry curriculum. The course is assigned for 1-12 credit hours during the quarter in which the student repeats the failed course. The assigned course will include content previously completed that is deemed critical for success in the Doctor of Optometry curriculum. This is a pass/fail course; letter grades are not assigned. The student who fails to successfully complete the assigned Optometry Competency course will be referred to the Student Promotion and Graduation Committee and may be dismissed from the college.

Credits 1.0-12

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1413: Optometry Competency

These courses serve to enhance the mastery of optometry knowledge, skills, techniques, and concepts. A course in this sequence may be assigned by the Student Promotion and Graduation Committee to a student who has been academically decelerated after receiving a non-passing grade in a required course within the Doctor of Optometry curriculum. The course is assigned for 1-12 credit hours during the quarter in which the student repeats the failed course. The assigned course will include content previously completed that is deemed critical for success in the Doctor of Optometry curriculum. This is a pass/fail course; letter grades are not assigned. The student who fails to successfully complete the assigned Optometry Competency course will be referred to the Student Promotion and Graduation Committee and may be dismissed from the college.

Credits 1.0-12

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1414: Optometry Competency

These courses serve to enhance the mastery of optometry knowledge, skills, techniques, and concepts. A course in this sequence may be assigned by the Student Promotion and Graduation Committee to a student who has been academically decelerated after receiving a non-passing grade in a required course within the Doctor of Optometry curriculum. The course is assigned for 1-12 credit hours during the quarter in which the student repeats the failed course. The assigned course will include content previously completed that is deemed critical for success in the Doctor of Optometry curriculum. This is a pass/fail course; letter grades are not assigned. The student who fails to successfully complete the assigned Optometry Competency course will be referred to the Student Promotion and Graduation Committee and may be dismissed from the college.

Credits 1.0-12

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1415: Optometry Competency

These courses serve to enhance the mastery of optometry knowledge, skills, techniques, and concepts. A course in this sequence may be assigned by the Student Promotion and Graduation Committee to a student who has been academically decelerated after receiving a non-passing grade in a required course within the Doctor of Optometry curriculum. The course is assigned for 1-12 credit hours during the quarter in which the student repeats the failed course. The assigned course will include content previously completed that is deemed critical for success in the Doctor of Optometry curriculum. This is a pass/fail course; letter grades are not assigned. The student who fails to successfully complete the assigned Optometry Competency course will be referred to the Student Promotion and Graduation Committee and may be dismissed from the college.

Credits 1.0-12

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1416: Selected Studies

This course allows students to pursue their special interests. This may include writing of abstracts or a review of current vision science literature. This may be repeated for credit with permission of the instructor.

Credits 1.0-3

Prerequisites

Permission of the course director

OPTOD 1417: Selected Studies

This course allows students to pursue their special interests. This may include writing of abstracts or a review of current vision science literature. This may be repeated for credit with permission of the instructor.

Credits 1.0-3

Prerequisites

Permission of the course director

OPTOD 1418: Selected Studies

This course allows students to pursue their special interests. This may include writing of abstracts or a review of current vision science literature. This may be repeated for credit with permission of the instructor.

Credits 1.0-3

Prerequisites

Permission of the course director

OPTOD 1419: Selected Studies

This course allows students to pursue their special interests. This may include writing of abstracts or a review of current vision science literature. This may be repeated for credit with permission of the instructor.

Credits 1.0-3

Prerequisites

Permission of the course director

OPTOD 1430: Study Skills Enhancement

This course allows students to understand and apply test-taking strategies in order to increase their success in professional studies.

Credits 2.0

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean.

OPTOD 1431: Applied Basic Science Review

This is a review course designed to assist students in identifying topic areas that require additional study in preparation for licensing exams.

Credits 1.0-3

Prerequisites

Permission of the course director

OPTOD 1440: Advanced Topics for Ocular Surface Disease

This course will present various approaches in the evaluation, treatment, and management of patients with ocular surface disease. The utilization of diagnostic testing and the process in selection of appropriate treatment(s) will be introduced. Components of a dry eye evaluation will be discussed including diagnosis, dry eye consultation, home therapy considerations, pharmaceutical interventions, contact lens considerations, procedural heat and light therapy, and surgical approaches.

Credits 0.5

Prerequisites

[OPTOD 1633](#) Surgical Management of the Eyelid & Ocular Adnexa

OPTOD 1441: Advanced Topics for GP Contact Lenses

This course will enhance basic corneal topography and gas permeable (GP) contact lens principles with advanced topics, such as: simulated fluorescein patterns, toric and multifocal corneal GPs, scleral lenses with toric and multifocal options, and standard and dual axis orthokeratology (ortho-K).

Credits 1.5

Prerequisites

[OPTOD 1750](#) Contact Lens III

OPTOD 1443: Advanced Topics: Pediatric Eye Disease Pediatric Eye Disease

This course will review the most common ocular conditions affecting the anterior and posterior segments of the eye in the pediatric population. In addition, common developmental syndromes will be reviewed. The etiology, epidemiology, diagnosis, and management are presented for each condition. Additionally, how these diseases impact various aspects of the child's quality of life including specific medications, educational services, and the interdisciplinary care involved.

Credits 1.0

Prerequisites

[OPTOD 1724](#) Pediatric Optometry

OPTOD 1451: Spanish for Optometric Eye Exams

This course emphasizes the vocabulary associated with the optometric examination. Students are expected to develop basic communication skills in Spanish. This course is intended for students with minimal knowledge of the Spanish language.

Credits 1.5

Prerequisites

Permission of the course director

OPTOD 1452: Introduction to Sports Vision

This course presents the basics of sports vision evaluation and therapy. The steps involved in performing a comprehensive sports vision examination as well as techniques to evaluate sports-related visual performance will be introduced. Different considerations for sports vision will be discussed, including refractive compensation, prevention and management of ocular injury, assessment and remediation of functional vision inefficiencies, vision enhancement training techniques, and sports vision consultation.

Credits 0.5

Prerequisites

Permission of the course director

OPTOD 1453: Neuro-Optometric Rehabilitation

This course explores the visual and ocular effects that occur as a result of acquired traumatic brain injury. The mechanism of the neurological and visual presentation following acquired brain injury is discussed, including primary and secondary injury. The course will explore imaging and electrodiagnostics as diagnostic tools and will cover the staging and implementation of various optometric management and treatment rationales with an emphasis on interdisciplinary care.

Credits 1.0

Prerequisites

Permission of the course director

OPTOD 1460: Fourth Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-18

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, Associate Dean of Clinical Affairs, or Dean

OPTOD 1510: Clinical Optometry I

These courses are the first three in the Clinical Optometry sequence introducing the theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of findings of various examination techniques commonly used in preliminary testing and visual function. Students are introduced to and participate in patient care and community vision screening during this sequence.

Credits 3.5

Prerequisites

none

OPTOD 1511: Contemporary Issues in Healthcare & Ethics

This course introduces students to ethical theories and principles and how to apply them to situations they may encounter in healthcare. Students will learn about ethical issues involving topics such as technology, confidentiality, and professional relationships. Ethical standards expected of them as graduate students and as optometrists will be discussed.

Credits 1.0

OPTOD 1514: Optometry Business Management I

This course surveys the profession of optometry up to present day, provides basic planning strategies for personal, professional, and financial goals to prepare for a career in optometry. Optometric career choices, modes and scope of optometric practice, as well as the advantages and disadvantages of the various paths are discussed. Emphasis is placed on the steps that should be initiated to prepare for a career as a professional.

Credits 1.0

OPTOD 1520: Clinical Optometry II

These courses are the first three in the Clinical Optometry sequence introducing the theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of findings of various examination techniques commonly used in preliminary testing and visual function. Students are introduced to and participate in patient care and community vision screening during this sequence.

Credits 3.0

Prerequisites

[OPTOD 1510](#) Clinical Optometry I

OPTOD 1522: Visual Perception

This course presents the basis of monocular vision and includes light and dark adaptation, spatial and temporal resolution, and color vision. Students will learn about striate and extra-striate cortex, and also gross electrical potentials and photometry. This will help students to understand different electrodiagnostic and imaging techniques such as visual evoked potentials (VEP) and MRI. Furthermore, they will learn about different psychophysical methods (e.g., signal detection theory). In addition, an overview of human visual development will also be discussed.

Credits 2.0

OPTOD 1530: Clinical Optometry III

These courses are the first three in the Clinical Optometry sequence introducing the theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of findings of various examination techniques commonly used in preliminary testing and visual function. Students are introduced to and participate in patient care and community vision screening during this sequence.

Credits 3.0

Prerequisites

[OPTOD 1520](#) Clinical Optometry

OPTOD 1540: Optics I

The course sequence provides an introduction to the qualitative and quantitative characterization of the behavior of light and optical systems as related to optometry.

Credits 4.0

Prerequisites

none

OPTOD 1541: Optics II

The course sequence provides an introduction to the qualitative and quantitative characterization of the behavior of light and optical systems as related to optometry.

Credits 4.0

Prerequisites

[OPTOD 1540](#) Optics I

OPTOD 1542: Optics III

The course sequence provides an introduction to the qualitative and quantitative characterization of the behavior of light and optical systems as related to optometry.

Credits 2.0

Prerequisites

[OPTOD 1541](#) Optics II

OPTOD 1550: Visual Neuroanatomy & Visual Neurophysiology

This course presents an introduction to neuroanatomy and neurophysiology from a visual perspective. Discussion of the central nervous system, peripheral nervous system, and specific visual pathway information from low order to high order processing are included. Students will learn how to apply their neuroanatomy and neurophysiology knowledge to dysfunctions and diseases of nervous system pathways.

Credits 3.5

OPTOD 1561: Ocular Anatomy & Physiology I

This course sequence enters into detailed discussion of microscopic and gross ocular anatomy. It describes the physiology and pathophysiology of the ocular tissues and units of the eye. Students will gain an understanding of the interrelationships between ocular histology and physiology with pharmacology and pathophysiology.

Credits 3.5

Prerequisites

none

OPTOD 1562: Ocular Anatomy & Physiology II

This course sequence enters into detailed discussion of microscopic and gross ocular anatomy. It describes the physiology and pathophysiology of the ocular tissues and units of the eye. Students will gain an understanding of the interrelationships between ocular histology and physiology with pharmacology and pathophysiology.

Credits 2.0

Prerequisites

[OPTOD 1561](#) Ocular Anatomy & Physiology I

OPTOD 1620: Basic Binocular Function

This course will present an overview of basic concepts of binocular vision such as the geometry of the binocular projection, the concepts of fusion, binocular summation, retinal correspondence, the horopter, stereopsis, fixation disparity, rivalry and aniseikonia. These concepts will be helpful to understand binocular vision related issues such as convergence insufficiency (CI).

Credits 3.0

OPTOD 1621: Ocular Motility

This course discusses the functional classes of eye movements including, fixational, saccadic, pursuit, vestibular, optokinetic, and vergence. Neural anatomy and physiology of eye movements will be discussed as well as systems governing accommodation and pupillary responses corresponding to eye movements. Students will learn how disruptions in the neural or muscular systems may lead to clinically significant disorders such as nystagmus, strabismus, and other abnormal eye movements.

Credits 2.0

OPTOD 1623: Diagnosis and Management of Non-Strabismic Binocular Vision Disorders

The course will present the diagnosis and management of heterophoric, accommodative, and eye movement disorders. Advanced clinical testing and interpretation of findings will be discussed for proper diagnosis of these conditions. Students will gain an understanding of different treatment options including lenses, prisms, and vision therapy. Additionally, optometric therapies for enhancement of sports-related visual skills will also be introduced.

Credits 4.0

Prerequisites

[OPTOD 1621](#) Ocular Motility

OPTOD 1630: Ocular Disease I

This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment, and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Credits 3.0

Prerequisites

none

OPTOD 1631: Ocular Disease II

This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment, and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Credits 3.0

Prerequisites

[OPTOD 1630](#) Ocular Disease I

OPTOD 1632: Ocular Disease III

This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment, and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Credits 3.0

Prerequisites

[OPTOD 1631](#) Ocular Disease II

OPTOD 1633: Surgical Management of the Eyelid & Ocular Adnexa

This course prepares the optometry student to perform ophthalmic surgical procedures of the anterior segment of the eye (biopsy, chalazion injections, incisions, and curettage). Topics will include pertinent medical-legal issues and informed consent, pharmacology of local anesthesia, surgical instruments, emergency surgical procedures, asepsis, infection control, and biohazard disposal. Post-operative wound care and complications will also be discussed.

Credits 1.5

Prerequisites

[OPTOD 1562](#) Ocular Anatomy & Physiology II and [OPTOD 1630](#) Ocular Disease I

OPTOD 1635: Ocular Therapeutics I

This course sequence focuses on the pharmacology of diagnostic and therapeutic agents. Specific topics include pharmacokinetics of the eye, use of autonomic agents, anti-allergic, anti-inflammatory and anti-infectious agents, and agents used to treat glaucoma. In addition, ocular effects of systemic medications will be presented.

Credits 1.0

Prerequisites

none

OPTOD 1636: Ocular Therapeutics II

This course sequence focuses on the pharmacology of diagnostic and therapeutic agents. Specific topics include pharmacokinetics of the eye, use of autonomic agents, anti-allergic, anti-inflammatory and anti-infectious agents, and agents used to treat glaucoma. In addition, ocular effects of systemic medications will be presented.

Credits 1.0

Prerequisites

[OPTOD 1635](#) Ocular Therapeutics I

OPTOD 1637: Ocular Therapeutics III

This course sequence focuses on the pharmacology of diagnostic and therapeutic agents. Specific topics include pharmacokinetics of the eye, use of autonomic agents, anti-allergic, anti-inflammatory and anti-infectious agents, and agents used to treat glaucoma. In addition, ocular effects of systemic medications will be presented.

Credits 3.0

Prerequisites

[OPTOD 1636](#) Ocular Therapeutics II

OPTOD 1640: Clinical Optometry IV

These courses are the last three in the Clinical Optometry sequence introducing theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of various examination techniques regarding ocular health. Students participate in patient care and community vision screening during this sequence.

Credits 3.0

Prerequisites

[OPTOD 1530](#) Clinical Optometry III

OPTOD 1643: Ophthalmic Optics I

This course sequence covers the study of the physical and optical characteristics of ophthalmic lenses and prisms; the design and application of single vision, multifocal, occupational and progressive lenses; the benefits and applications of ophthalmic lens materials, absorptive lenses, and lens treatments; and the proper measurement and fitting of ophthalmic lenses and frames.

Credits 4.0

Prerequisites

OPTOD 1543 Visual Optics

OPTOD 1644: Ophthalmic Optics II

This course sequence covers the study of the physical and optical characteristics of ophthalmic lenses and prisms; the design and application of single vision, multifocal, occupational and progressive lenses; the benefits and applications of ophthalmic lens materials, absorptive lenses, and lens treatments; and the proper measurement and fitting of ophthalmic lenses and frames.

Credits 4.0

Prerequisites

[OPTOD 1643](#) Ophthalmic Optics I

OPTOD 1648: Contact Lens I

This course sequence includes a discussion of the theory and practice of contact lens design and contact lens fitting methodologies. Areas of discussion include corneal topography, design of materials, fabrication and modification of contact lenses, fitting and evaluation methodologies, and procedures. This course sequence will also explore advanced contact lens applications for high and irregular astigmatism, keratoconus, presbyopia, post-surgical and irregular corneas, corneal reshaping, and ocular prosthetics.

Credits 3.0

Prerequisites

none

OPTOD 1649: Contact Lens II

This course sequence includes a discussion of the theory and practice of contact lens design and contact lens fitting methodologies. Areas of discussion include corneal topography, design of materials, fabrication and modification of contact lenses, fitting and evaluation methodologies, and procedures. This course sequence will also explore advanced contact lens applications for high and irregular astigmatism, keratoconus, presbyopia, post-surgical and irregular corneas, corneal reshaping, and ocular prosthetics.

Credits 3.0

Prerequisites

[OPTOD 1648](#) Contact Lens I

OPTOD 1650: Clinical Optometry V

These courses are the last three in the Clinical Optometry sequence introducing theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of various examination techniques regarding ocular health. Students participate in patient care and community vision screening during this sequence.

Credits 3.0

Prerequisites

[OPTOD 1640](#) Clinical Optometry IV

OPTOD 1660: Clinical Optometry VI

These courses are the last three in the Clinical Optometry sequence introducing theory and procedures of comprehensive eye examinations. This includes instrumentation, examination methods and protocols, psychophysical techniques, appropriate patient communication, and recording of various examination techniques regarding ocular health. Students participate in patient care and community vision screening during this sequence.

Credits 3.0

Prerequisites

[OPTOD 1650](#) Clinical Optometry V

OPTOD 1661: Clinical Services Proficiency

The objective of this course is to assess and verify the student's level of competency in patient care skills. The course is designed to refine clinical procedures and culminates in a comprehensive clinical skills proficiency examination.

Credits 0.5

Prerequisites

[OPTOD 1650](#) Clinical Optometry V

OPTOD 1680: Capstone Project: Research Design, Biostatistics & Literature Search

The intent of this course is to prepare students to conduct the Capstone Research Project. This course covers the principles of research design, application of biostatistical methods, and literature search tools. The students will learn basic rules and common practices for planning, conducting, and completing a basic or clinical research study.

Credits 1.0

OPTOD 1681: Capstone Project: Study Design

The intent of this course is to guide students through the study-design phase of the project. This course will include conducting a literature search(es) and designing the Capstone Project. The Capstone projects can be focused on basic research, clinical research, or literature reviews. If an extensive literature review is proposed for the Capstone project, prior approval from the Capstone Committee is required.

Credits 1.0

OPTOD 1700: Clinical Medicine Procedures

The benefits of an interdisciplinary approach to vision care are emphasized in this course. It involves advanced history taking and aspects of a physical examination. This course introduces the procedures for evaluating the head and neck, while covering various systems of the body (dermatology, pulmonology, rheumatology, and neurology). Suturing, wound maintenance, and injections (ocular, subcutaneous, intramuscular, and intravenous) are also included.

Credits 2.5

OPTOD 1701: Behavioral Medicine

This course provides an introduction to behavioral and psychiatric disorders and behavioral medicine. The course is offered from a holistic perspective with an emphasis on compassionate inter-professional and optometric care. In addition, medical treatment is discussed with a basic overview of potential optometric drug interactions and side effects relevant to optometry and with reference to the One Health Initiative.

Credits 1.0

OPTOD 1714: Optometry Business Management II

This course emphasizes interpersonal skills, communication, and professionalism as part of patient care. Ethical professional practice as it relates to diversity, equity and inclusion are discussed. Legal aspects of optometry, and billing and coding are reviewed. Exercises necessary for entering modes of practice are implemented. Job securing strategies, contract negotiations and business plan development and creation are covered. After the course, students are able to enter their preferred practice modality with skills to be successful

Credits 2.0

OPTOD 1716: Professionalism VII

Credits 0.5

Semester Offered

Summer

OPTOD 1717: Professionalism VIII

Credits 0.5

Semester Offered

Fall

OPTOD 1718: Professionalism IX

Credits 0.5

Semester Offered

Winter

OPTOD 1719: Professionalism X

Credits 0.5

Semester Offered

Spring

OPTOD 1724: Pediatric Optometry

This course focuses on the adaptation of eye care for the pediatric and special needs patient including examination techniques, treatment, and management. Normal visual development will be discussed as well as the potential implications of congenital and genetic disorders on the visual system. Ocular pathologies affecting these populations including diagnostic procedures and appropriate treatment strategies will also be addressed.

Credits 2.5

Prerequisites

[OPTOD 1623](#) Non-Strabismic Disorders of Accommodation, Binocular Vision & Eye Movements

OPTOD 1725: Diagnosis of Strabismus & Amblyopia

This course introduces strabismus and amblyopia, including appropriate testing and diagnosis. Clinical classifications and characteristics of strabismus and amblyopia will be discussed. Emphasis will be placed on the clinical interpretation of findings and specialized techniques necessary for proper evaluation.

Credits 3.5

Prerequisites

[OPTOD 1724](#) Pediatric Optometry

OPTOD 1726: Treatment & Management of Strabismus & Amblyopia

This course introduces clinical applications for the prevention, treatment, and management of strabismus and amblyopia. It presents clinical methods to ameliorate deficits in visual development and binocular functions caused by sensory and motor anomalies. Theory and reasoning for treatment and management will be discussed.

Credits 2.5

Prerequisites

[OPTOD 1725](#) Diagnosis of Strabismus & Amblyopia

OPTOD 1727: Visual Information Processing & Learning-Related Vision Problems

This course focuses on visual information processing testing and its use in identifying reading and learning deficits. Application of these findings will be discussed with respect to an academic environment including the optometrist's role as part of an interprofessional team and management of learning disorders. Time will be spent introducing the optometrist's role in testing brain injuries and the associated visual therapy.

Credits 3.0

Prerequisites

[OPTOD 1726](#) Treatment & Management of Strabismus & Amblyopia

OPTOD 1733: Ocular Disease IV

This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment, and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Credits 2.5

Prerequisites

[OPTOD 1632](#) Ocular Disease III

OPTOD 1734: Ocular Disease V

This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment, and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Credits 2.0

Prerequisites

[OPTOD 1733](#) Ocular Disease IV

OPTOD 1735: Advanced Specialized Test Interpretation

This course is designed to augment the basic education on specialty test indications and their results. This course will explore image acquisition, interpretation, clinical correlates, and their application to patient care.

Credits 1.0

OPTOD 1736: Ophthalmic Application of Lasers

This course is a comprehensive introduction to the ophthalmic application of lasers. Topics will include indications, perioperative management, complications, and patient education for laser vision correction and therapeutic medical lasers, as well as pertinent medical-legal issues and informed consent. Physical principles of lasers, mechanisms of damage, and American National Standards Institute standards pertaining to laser safety will also be included. Hands-on learning will be incorporated throughout lab exercises.

Credits 1.0

OPTOD 1745: Epidemiology, Public Health & the Optometric Profession

This course is an introduction to the epidemiology of ocular anomalies, public and community health planning and care, and the role of the optometrist in community health promotion.

Credits 2.0

OPTOD 1750: Contact Lens III

This course sequence includes a discussion of the theory and practice of contact lens design and contact lens fitting methodologies. Areas of discussion include corneal topography, design of materials, fabrication and modification of contact lenses, fitting and evaluation methodologies, and procedures. This course sequence will also explore advanced contact lens applications for high and irregular astigmatism, keratoconus, presbyopia, post-surgical and irregular corneas, corneal reshaping, and ocular prosthetics.

Credits 3.0

Prerequisites

[OPTOD 1649](#) Contact Lens II

OPTOD 1770: Clinical Services I

The student will provide primary eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, vision therapy, sports vision, and ocular prosthetics) at the Midwestern University Eye Institute or at selected external clinical sites. This course series focuses on progressive competence in the diagnosis, treatment and management of visual dysfunctions and ocular conditions. Students will participate in case based clinical seminars as well.

Credits 6.0

Prerequisites

[OPTOD 1660](#) Clinical Optometry VI and [OPTOD 1661](#) Clinical Services Proficiency

OPTOD 1771: Clinical Services II

The student will provide primary eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, vision therapy, sports vision, and ocular prosthetics) at the Midwestern University Eye Institute or at selected external clinical sites. This course series focuses on progressive competence in the diagnosis, treatment and management of visual dysfunctions and ocular conditions. Students will participate in case based clinical seminars as well.

Credits 6.0

Prerequisites

[OPTOD 1770](#) Clinical Services I

OPTOD 1772: Clinical Services III

The student will provide primary eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, vision therapy, sports vision, and ocular prosthetics) at the Midwestern University Eye Institute or at selected external clinical sites. This course series focuses on progressive competence in the diagnosis, treatment and management of visual dysfunctions and ocular conditions. Students will participate in case based clinical seminars as well.

Credits 6.0

Prerequisites

[OPTOD 1771](#) Clinical Services II

OPTOD 1773: Clinical Services IV

The student will provide primary eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, vision therapy, sports vision, and ocular prosthetics) at the Midwestern University Eye Institute or at selected external clinical sites. This course series focuses on progressive competence in the diagnosis, treatment and management of visual dysfunctions and ocular conditions. Students will participate in case based clinical seminars as well.

Credits 6.0

Prerequisites

[OPTOD 1772](#) Clinical Services III and [OPTOD 1774](#) Specialty Clinical Services Proficiency

OPTOD 1774: Specialty Clinical Services Proficiency

The objective of this course is to assess and verify the student's proficiency in specialty services skills required for clinical rotations during the fourth year of professional patient care. It culminates in a clinical skills proficiency examination.

Credits 0.5

Prerequisites

[OPTOD 1771](#) Clinical Services II

OPTOD 1778: Capstone Project: Data Collection & Analysis

The intent of this course is to guide students through the data collection and the initial analysis phase of the project. Students will complete their data collection and perform statistical data analysis on their results. At the end of this course, students will be required to prepare an abstract summarizing their data.

Credits 1.0

OPTOD 1779: Capstone Project: Dissemination of Results

The intent of this course is to provide guidance to the students for the organization and presentation of the results of their projects. In this final course of the Capstone Project series, students will be required to prepare their project for presentation. Students will create and formally present a poster at the Midwestern University Kenneth Suarez Research day or a similar event.

Credits 2.0

OPTOD 1785: Low Vision Rehabilitation

This course provides an overview of the strategies used in the field of low vision rehabilitation to manage and treat patients with chronic vision impairments. Skills necessary to perform basic low vision examinations will be reviewed. Common optical, non-optical, and assistive/adaptive technologies used to develop rehabilitation plans will be introduced. Special topics including geriatric populations, traumatic brain injury, and psychosocial factors associated with vision loss will be discussed. The laboratory component will provide hands-on experience with low vision devices.

Credits 3.0

OPTOD 1787: Neuro-ophthalmic Disease

This course presents the ocular, visual, systemic and neurologic manifestations of neuro-ophthalmic disorders and disease. The diagnosis and management is presented and includes but is not limited to components of the neuro-ophthalmic exam, neuroimaging and specialty testing.

Credits 2.0

Prerequisites

[OPTOD 1550](#) Visual Neuroanatomy & Neurophysiology

OPTOD 1790: Clinical Case Analysis I/Evidence-Based Medicine

This course is based on case presentations from the Midwestern University Eye Institute or from optometric literature. Students will be trained in clinical diagnosis and treatment and management of patients using evidence-based clinical protocols.

Credits 2.0

OPTOD 1791: Clinical Case Analysis II/Treatment Plans

This course is based on case presentations from the Midwestern University Eye Institute or from optometric literature. It will present the diagnostic and treatment strategies for ocular and visual conditions within both primary and specialty care.

Credits 2.0

OPTOD 1793: Third Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-7

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1794: Third Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-7

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1795: Third Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-7

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1796: Third Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-7

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, or Dean

OPTOD 1800: Clinical Services V

The fourth professional year is designed to promote continued development of the student's emerging clinical problem-solving abilities. This is a series of fulltime clinical rotations or externships. Direct patient care in individualized supervised clinical experiences is the focus. Students will provide eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, electro-diagnosis, vision therapy, sports vision and ocular prosthetics) at the Midwestern University Eye Institute or at selected external rotation sites. Clinical decision making will be enhanced through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, and newer techniques and procedures for diagnosis and management. This course comprises patient care experiences and a seminar series presented weekly during each fourth year clinical rotation in the Eye Institute.

Credits 18.0

Prerequisites

[OPTOD 1773](#) Clinical Services IV

OPTOD 1810: Clinical Services VI

The fourth professional year is designed to promote continued development of the student's emerging clinical problem-solving abilities. This is a series of fulltime clinical rotations or externships. Direct patient care in individualized supervised clinical experiences is the focus. Students will provide eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, electro-diagnosis, vision therapy, sports vision and ocular prosthetics) at the Northwestern University Eye Institute or at selected external rotation sites. Clinical decision making will be enhanced through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, and newer techniques and procedures for diagnosis and management. This course comprises patient care experiences and a seminar series presented weekly during each fourth year clinical rotation in the Eye Institute.

Credits 18.0

Prerequisites

[OPTOD 1800](#) Clinical Services V

OPTOD 1820: Clinical Services VII

The fourth professional year is designed to promote continued development of the student's emerging clinical problem-solving abilities. This is a series of fulltime clinical rotations or externships. Direct patient care in individualized supervised clinical experiences is the focus. Students will provide eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, electro-diagnosis, vision therapy, sports vision and ocular prosthetics) at the Northwestern University Eye Institute or at selected external rotation sites. Clinical decision making will be enhanced through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, and newer techniques and procedures for diagnosis and management. This course comprises patient care experiences and a seminar series presented weekly during each fourth year clinical rotation in the Eye Institute.

Credits 18.0

Prerequisites

[OPTOD 1810](#) Clinical Services VI

OPTOD 1830: Clinical Services VIII

The fourth professional year is designed to promote continued development of the student's emerging clinical problem-solving abilities. This is a series of fulltime clinical rotations or externships. Direct patient care in individualized supervised clinical experiences is the focus. Students will provide eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, electro-diagnosis, vision therapy, sports vision and ocular prosthetics) at the Northwestern University Eye Institute or at selected external rotation sites. Clinical decision making will be enhanced through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, and newer techniques and procedures for diagnosis and management. This course comprises patient care experiences and a seminar series presented weekly during each fourth year clinical rotation in the Eye Institute.

Credits 18.0

Prerequisites

[OPTOD 1820](#) Clinical Services VII

OPTOD 1895: Fourth Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-18

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, Associate Dean of Clinical Affairs, or Dean

OPTOD 1896: Fourth Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-18

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, Associate Dean of Clinical Affairs, or Dean

OPTOD 1897: Fourth Year Clinical Skills Enhancement

Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.

Credits 1.0-18

Prerequisites

Approval of the Student Promotion and Graduation Committee, Associate Dean of Academic Affairs, Associate Dean of Clinical Affairs, or Dean

PATHD 1501: Pathology/Histology I

This course focuses on the basic concepts and principles of pathology by analyzing the basic inherent mechanisms that underlie all disease processes. Students will develop an understanding of the processes of cellular injury and adaptation, inflammation and repair, neoplasia, hemodynamic disorders and basic laboratory values and analysis. This course stresses the cellular, genetic, pathophysiologic and molecular alterations which underlie all disease processes and emphasizes their dynamic nature. The histology of different organ systems will be covered looking at both normal and diseased tissues.

Credits 2.5

PATHD 1502: Pathology/Histology II

This course is a continuum of [PATHD 1501](#). The causes and pathophysiologic mechanisms of disease pertaining to specific organ systems are emphasized along with their anatomic, histologic and physiologic alterations. The relationships between specific organ system diseases and their systemic implications are also emphasized.

Credits 2.5

PHARD 1641: Pharmacology I

This course sequence includes coverage of the pharmacologic actions of the major classes of drugs acting on the autonomic, cardiovascular, gastrointestinal, immune and central nervous systems. Other topics that are covered include the chemotherapy of microbial, parasitic and neoplastic diseases; drugs acting on blood and blood-forming organs, hormones and hormone antagonists, principles of toxicology, vitamins, and drugs causing birth defects.

Credits 3.0

Prerequisites

none

PHARD 1642: Pharmacology II

This course sequence includes coverage of the pharmacologic actions of the major classes of drugs acting on the autonomic, cardiovascular, gastrointestinal, immune and central nervous systems. Other topics that are covered include the chemotherapy of microbial, parasitic and neoplastic diseases; drugs acting on blood and blood-forming organs, hormones and hormone antagonists, principles of toxicology, vitamins, and drugs causing birth defects.

Credits 2.0

Prerequisites

[PHARD 1641](#) Pharmacology I

PHYSD 1530: Human Physiology I

This course provides core knowledge of physiology in order to understand normal function and to acquire the ability to analyze and interpret the immediate and longterm compensatory responses to common disease states of excitable cells, cardiovascular, and nervous systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.0

PHYSD 1531: Human Physiology II

This course provides core knowledge of physiology in order to understand normal function and to acquire the ability to analyze and interpret the immediate and longterm compensatory responses to common disease states of respiratory, renal, acid-base, endocrine, reproductive, and gastrointestinal systems. Basic and applied terminology as well as the basic morphology of systems are discussed, and the relationship between anatomy and function of the systems considered is included.

Credits 3.0