Midwestern University

Downers Grove, IL

Catalog 2008-2009

Midwestern University Catalog 2008–2009

Downers Grove Campus
Chicago College of Osteopathic Medicine
Chicago College of Pharmacy
College of Health Sciences
  • Physician Assistant Program
  • Physical Therapy Program
  • Occupational Therapy Program
  • Biomedical Sciences Program
  • Clinical Psychology Program

Glendale Campus
Arizona College of Osteopathic Medicine
College of Pharmacy–Glendale
College of Health Sciences
  • Physician Assistant Program
  • Occupational Therapy Program
  • Biomedical Sciences Program
  • Cardiovascular Science Program
  • Podiatric Medicine Program
  • Nurse Anesthesia Program
  • Clinical Psychology Program

College of Dental Medicine

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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 health care 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 their 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 Administration, 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 your community as a health care professional who has the skills, ability, and leadership to meet the changing demands of health care. I am proud to say that our students and alumni reflect the positive human values we believe are essential within the changing health care 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 within their professions. 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 Chicago College of Pharmacy, or the College of Health Sciences, 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 & Chief Executive Officer

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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 health care 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 undergraduate, 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 health care team of tomorrow, while students learn the art and science of their 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 Chicago College of Pharmacy (CCP) began in 1991 and the College of Health Sciences (CHS) began in 1992. 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 20 buildings that include academic classrooms, laboratories, a state-of-the-art library and auditorium building, student commons, recreation center, and student housing.

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 (CDM) in 2006, and the Arizona College of Optometry (AZCOpt) in 2008. The campus has seen rapid growth in the number of buildings, academic programs, faculty, staff, and students. Today the Glendale Campus, located on 145 acres, has 32 buildings that provide for academic classrooms, state-of-the-art laboratories, student commons, student housing, and an on-campus multidisciplinary clinic.

Midwestern University has developed strong partnerships with health care 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 are dedicated to fulfilling our mission of excellence and service. We remain committed to our tradition of providing quality health care education. We are tomorrow’s health care team, learning together today.

ACCREDITATION
Midwestern University is accredited by The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools (30 N. LaSalle Street, Suite 2400, Chicago, IL 60602-2504; 800/621-7440; <www.ncahighered.org>).

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

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.

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 and research facilities; and faculty offices.
- Prabhu Hall, a modern science building that features anatomy and animal research laboratories, and boasts accreditation from the American Association for Accreditation of Laboratory Animal Care (AAALAC).
- 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, handball courts, a gymnasium, craft room, and music room. Additional recreational facilities include outdoor basketball courts, a sand volleyball court, and a softball field.
- The six-story Redwood Hall features meeting rooms, Perrin Interfaith Chapel, an auditorium, and residence hall rooms.
- The Commons student center houses the campus bookstore, mailroom, a full-service dining hall, computer lab and administrative offices.
- Haspel/Hambrick Hall houses the Offices of the Academic Deans and University Support Services.

HOUSING

Redwood Hall I
Redwood Hall I is a modern student residence facility that features 80 single occupancy residence hall rooms. Each room includes living space of 160 square feet; a bathroom shared by two residents; air conditioning; Internet wiring; cable TV; wall-to-wall carpeting; and built-in closets, dresser, desk, 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 a capacity of 131 residents. Each room includes a private or shared bathroom, air conditioning, Internet wiring, cable TV, wall-to-wall carpeting; beds, built-in closet, dresser, desk, chair and wardrobe. Redwood Hall II also includes the Perrin Interfaith Chapel.

Traditional Residence Halls
The traditional residence halls comprise five buildings (Aspen Hall, Birch Hall, Chestnut Hall, Dogwood Hall, Elm Hall) nestled in the wooded section of campus. Each hall features single occupancy rooms; with 224 square feet of living space, a shared bathroom; Internet wiring; cable TV; wall-to-wall carpeting; beds; and built-in closets, dressers, and desks.

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 living space of 500 square feet;
Internet wiring; cable TV; kitchenette with stove and refrigerator; and central air conditioning and heating units.

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 to 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. Procedures relating to application for accommodations for disabilities are outlined in the policy section of the MWU Student Handbook.

**CRIMINAL BACKGROUND CHECKS**
Due to growing concerns nationwide regarding the suitability of today’s health care providers, many hospitals and other institutions or businesses providing health care 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 care certificates and licenses. Existence of a criminal history may subject an individual to denial of initial license or certification applications or result in the revocation or suspension of existing licenses and certifications. In response to this growing trend, Midwestern University requires matriculating students to submit to a criminal background check.

It is the policy of Midwestern University that all students are to 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. 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.

The criminal background check involves obtaining a waiver from a matriculating or current student to authorize an external agency 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 Academic Dean so the University can make a determination whether the criminal history will negatively impact the student’s admission status or academic progress.

Criminal background checks will be conducted through the Department of Student Services as part of the initial student matriculation process and on an as-needed basis thereafter while a student is enrolled at Midwestern University.

1. All matriculating students must fill out the required paperwork in order to authorize the Department of Student Services to conduct the criminal background check. Students who are offered to matriculate are provided with a copy of the policy and criminal background check authorization form as part of the Matriculation Agreement packet.
2. The Department of Student Services will initiate a criminal background investigation.
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 history of a felony or misdemeanor conviction exists, the Dean of Students in consultation with the Academic Dean (or their designee) will determine whether or not the student should be disqualified from matriculation or continued enrollment. Criminal convictions 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 conviction, 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.
4. Failure to disclose a conviction, or material misrepresentation of information by an incoming or enrolled student is deemed to be falsification of the application and may result in denial of matriculation and/or dismissal from the program and University. Students must disclose any felony charge/conviction, and whether the University will be able to conduct criminal background checks when requested will bar the student’s initial matriculation and/or continued enrollment.
5. Failure of the student to present appropriate forms to the Department of Student Services for the purpose of conducting criminal background checks when requested will impact the student’s admission status or academic progress.
6. Students with a positive criminal background check are individually responsible for checking the licensing and credentials of their clinical program.
Harassment/Hostile Working Environment

Midwestern University believes in the dignity and worth of its students, faculty, staff, interns, and residents and will not tolerate unacceptable conduct or behavior that has the effect of substantially interfering with the individual’s performance or creates an intimidating, hostile, or offensive learning/working environment. Members of the MWU community have a right to be free from harassment. Those individuals who believe that they have been harassed may obtain redress promptly and equitably through the formal and informal procedures of the University as outlined in the policy section of the MWU Student Handbook.

It is the policy of MWU to provide an environment that is free from harassment because such conduct seriously undermines the atmosphere of trust and respect that is essential to a healthy work and academic environment. The conduct prohibited by this policy includes all unwelcome conduct (whether verbal, physical, visual or written) based on an individual’s protected status, such as gender, color, race, ancestry, religion, national origin, age, physical or mental disability, marital status, veteran status, citizenship status, sexual orientation, 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, MWU 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.

This policy applies to all members of the University community, each of whom is encouraged to report promptly complaints about harassment. Anyone found to be in violation of this harassment policy shall be subject to disciplinary action, which may include, but is not limited to, disciplinary warning, disciplinary probation, demotion, transfer, suspension, or dismissal.

No action shall be taken against anyone who submits a complaint that he or she 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.

Sexual Harassment

Sexual harassment 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.

A third party may also file a complaint under this policy if the sexual conduct of others in the educational or work environment has the purpose or effect of substantially interfering with the third party’s welfare, academic, or work performance.

Admissions

Prospective students interested in enrolling in any college of Midwestern 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
Midwestern University
555 31st Street
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admissil@midwestern.edu

Office of Admissions
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1955 North 59th Avenue
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623/572-3215
888/247-9277
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Student Services

The mission of the Department 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 between the colleges that can be carried on throughout students’ professional lives.

The Department of Student Services on the Downers Grove Campus is located on the lower level of the Commons, and is composed of the Office of the Dean of Students, Assistant Dean, Student Activities, Residence Life, Campus Recreation, Student Counselor; and the Wellness Center. The Department coordinates a variety of student support service functions within the University. The Department 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 interpersonal counseling, intramural sports, and other developmental activities. The Department of Student Services has an open-door policy and is available to students on a continuing basis offering 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 and 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 19 members. Five members represent CCOM and CCP respectively, and six members represent CHS. The remaining three members are the Speaker of the Student Senate, 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.

The Student Senate is required to develop and publish bylaws that describe: (1) the name of the senate, (2) purpose, (3) objectives of the senate, (4) operation and relationship with the college student councils, (5) membership and procedures for the election of officers/liaisons and their terms of office, (6) duties of senate members, (7) meeting schedules, (8) parliamentary procedure, (9) procedural considerations (quorums, role of individual class officers, etc), and (10) adoption and amendment procedures.

College Level
Individual college student councils 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 is at the discretion of the elected/appointed officers of these councils. College student councils are encouraged to adopt bylaws that are consistent with the bylaws of the other college student councils.

Individual college student councils are required to develop and publish bylaws that describe: (1) the name of the student council, (2) purpose, (3) objectives of the council, (4) operation and relationship with other college student councils, (5) membership and procedures for the election of officers/liaisons and their terms of office, (6) duties of student council members, (7) meeting schedules, (8) parliamentary procedure, (9) procedural considerations (quorums, role of individual class officers, etc), and (10) adoption and amendment procedures.

Student Organizations
The following student organizations are recognized by the appropriate student senate, respective student councils, and the Dean of Students, and have been approved by the Dean of the respective colleges. Students interested in obtaining more information about any of these organizations or having any questions concerning how to apply for membership should contact the president(s) of the respective organization(s). Descriptions of each organization are found on in the Student Handbook on the Student Services Website.

Midwestern University – Downers Grove Campus
University Senate Organizations

- GLASS
- Catholic Student Association (Newman Center)
- Christian Medical Association (CMA)
- Geriatrics Club
- Integrative Medicine Club
- Jewish Student Union
- Muslim Student Association (MSA)
- Sports Medicine Club
- Students for Organ
Chicago College of Osteopathic Medicine Student Council Organizations

- American Association of Physicians of Indian Origin
- American College of Osteopathic Family Practice (ACOFP)
- American Medical Association/Medical Student Society (AMA/MSS)
- American Medical Student Association (AMSA)
- American Medical Women’s Association/National Osteopathic Women Physicians Association (AMWA/NOWPA)
- American Military Osteopathic Physicians and Surgeons (AMOPS)
- Anesthesia Interest Group
- Asian-Pacific American Medical Student Association (APAMSA)
- CCOM Research Club
- Emergency Medicine Club
- International Health Education Awareness Group
- Medical Business Association (MBA)
- Physical Medicine and Rehabilitation Club (PM & R)
- Radiology Club
- Sigma Sigma Phi
- Society for Teaching and Inspiring Life-Long Learning of Osteopathic Medicine (STILL-OM)
- Student Ear, Nose and Throat Society (SENTS)
- Student Osteopathic Internal Medicine Association/Internal Medicine Club - CCOM
- Student Osteopathic Medical Association (SOMA)
- Student Osteopathic Obstetricians and Gynecologists Association (SOOGA)
- Student Osteopathic Pediatric Association (SOPA)
- Student Osteopathic Surgery Association (SOSA)
- Students Today, Alumni Tomorrow (STAT)
- Undergraduate American Academy of Osteopathy (UAAO)
- Wilderness Medical Society

College of Health Sciences Student Council Organizations

- Behavioral Medicine Club
- PA Challenge Bowl
- PA Surgical Society
- Pediatric Medicine Club
- Student Advocates for Oral Health
- Student Occupational Therapy Association (SOTA)
- Underserved Medicine Club
- Women’s Health Organization

Physician Assistant Program

- American Academy of Physician Assistants (AAPA)
- CHS/AAPA Student Association
- Illinois Academy of Physician Assistants (IAPA)

Physical Therapy Program

- American Physical Therapy Association (APTA)
- American Physical Therapy Association (APTA) Student Assembly
- CHS/APTA Student Assembly Liaison
- Illinois Physical Therapy Association (IPTA)
- Eastern District-Illinois Physical Therapy Association (IPTA)
- Illinois Physical Therapy Association Student Activities Committee APTA Sections
- Support Organization for Minority Physical Therapists (SOMPT)

Occupational Therapy Program

- American Occupational Therapy Association (AOTA)
- American Student Committee of the Occupational Therapy Association (ASCOTA)
- Illinois Occupational Therapy Association (IOTA)

Student Counseling

The Downers Grove Campus has a full-time counselor. The Student Counselor is available to help students at Midwestern University effectively deal with many issues through individual, couples, and family counseling.

Counseling by the on-campus Student Counselor is subsidized through student activity fees and is provided free of charge to all students of Midwestern University. Based on an assessment by the counselor, at times it may be necessary 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.
MWU Student Tutor Program
Midwestern University offers peer-tutoring services to those students having academic problems through the Office of Student Services. Tutoring is designed to enhance test-taking skills, modify study habits, and/or 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, Midwestern University requires that all students submit documented proof of immunity against certain diseases prior to and during their enrollment.

Recreational Activities
Committed to the concept of wellness, Midwestern University encourages students to utilize Recreation and Wellness Hall. These facilities include a craft room, a music room, gymnasium, a fully equipped weight room, an aerobic exercise room, handball courts, outdoor basketball courts, an outdoor sand volleyball court, and athletic fields for various intramural sports.

Additionally, students may participate in numerous activities sponsored by the University, including volleyball, soccer, basketball, ping-pong tournaments, softball competitions, and group activities such as martial arts training, yoga, running, and cardio kick-boxing.

Wellness Center
The Wellness Center provides health care service to all students, faculty, and staff members on the Downers Grove Campus. The Wellness Center provides a number of basic health care services including immunizations, acute care, health screening, lab work, breathing treatments, weight loss, wellness programming, and a variety of other educational services.

STUDENT FINANCIAL SERVICES
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 the financing of their education. The Office of Student Financial Services is also responsible for the billing and collection of all tuition and fees owed for each quarter.

Students may contact the Downers Grove Office of Student Financial Services by calling 630/515-6101 Monday through Friday between the hours of 8:00 AM and 4:30 PM (Central Standard Time).

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, sex, sexual orientation, religion, national or ethnic origin, citizenship status, disability, status as a veteran, age, or marital status.

General Eligibility Requirements
All students seeking financial aid must meet general eligibility requirements regarding citizenship, selective service, 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 financial aid. In addition, students who have been convicted of the possession or sale of illegal drugs for an offense that occurred while receiving federal Title IV aid may not be considered eligible for future, additional 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.

Veterans’ Educational Benefits
All academic programs at Midwestern University, with the exception of the Nontraditional Pharm.D. Program, are approved to offer veterans’ educational benefits by the Illinois Department of Veteran Affairs. For additional information, contact the Office of Student Financial Services. Because Midwestern University is a private, not-for-profit institution, students who are Illinois veterans are not eligible for Illinois Veteran Grant (IVG) funding.

Financial Aid On-Line Application
On-line application instructions for the upcoming financial aid award year are made available on an annual basis during January and February to each continuing class of students. All accepted students who have paid their matriculation deposit will receive on-line application instructions for the upcoming academic year. Accepted applicants will also have electronic access to other relevant financial aid resources provided on the University website.

Financial Aid Programs
The Office of Student Financial Services helps coordinate three types of financial aid: scholarships and grants, employment programs, and loans.

Scholarships and Grants
All Programs
MWU Unmet Need Scholarship: Awarded to students who demonstrate the most significant financial need as determined by their Free Application for Federal Student Aid. Students must meet MWU’s priority financial aid deadline date in order to be considered for eligibility. Historically MWU has been able to award between $750,000 and $1,750,000 each year in non-renewable, institutional
scholarships to incoming and returning students from each of the University’s three colleges with funding provided by the University’s School-As-Lender program. Future amounts and availability of funding will depend upon market conditions and Federal legislative actions regarding the School-As-Lender program.

Medical Programs
1. 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 grant varies per year. Students are notified by the Office of Development and Alumni Affairs when applications become available.
2. CCOM Alumni Association Book Grant: The number and amount of this grant varies per year. Students are notified by the Office of Development & Alumni Relations when applications become available.

Employment Programs
Federal Work Study: Student employment is open to all students who apply by the deadline date and demonstrate financial need. Students who qualify for this program may work on campus or off campus if performing community service activities. The Office of Student Financial Services determines the total amount students may earn. This is NOT a loan program. Students who obtain Federal Work Study employment will be paid biweekly at the rate of $8 per hour for regular work study and $10 per hour for community service work study effective July 1, 2008, through June 30, 2009.

Student Loans
Medical Programs
1. CCOM Student Loan Fund: This institutional loan program offers needy second, third, and fourth-year students up to $17,500 per year. Interest on the loan is currently 5% and does not accrue during school or the first year of an approved internship/residency. Repayment of this loan begins at the completion of the internship. All applicants are required to submit parental information.
2. Primary Care Loan: Priority consideration is given to certain third- or fourth-year students with exceptional financial need who are committed to practicing primary care medicine. Such students may borrow this campus-based loan that offers a one-year grace period and a residency deferment of up to four years. The interest rate is 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 from CCOM. Students must also agree to practice primary care medicine through the date on which the loan is repaid in full. Per federal regulations, all applicants are required to submit parental financial information regardless of dependency status.

All Programs
1. Federal Perkins Loan: Qualified graduate students with exceptional financial need may borrow from this campus-based loan program. The interest rate is 5%. Loan amounts and availability of funding are dependent on annual Federal allocations. Awards typically range from $1000 to $3500 per academic year. A student may borrow an aggregate maximum of $40,000 for undergraduate and graduate study. The student borrower will also receive a nine-month grace period and may defer or have the loan forgiven in certain circumstances.
2. Subsidized Federal Stafford Loan: Graduate students enrolled at least half-time in a degree seeking program may borrow up to $8,500 per academic year, with an aggregate maximum of $65,500 for undergraduate and graduate study. Students borrowing the Stafford loan must repay their loan at a fixed interest rate of 6.8%. The federal government pays this interest while students attend school, as well as during a six-month grace period.
3. Unsubsidized Federal Stafford 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 for undergraduate and graduate study. First and second year CCOM students may qualify to borrow per academic year up to $42,722 for first and second years, and $47,167 for third and fourth years, first year CCP students may borrow up to $33,000 per academic year. Both CCOM and CCP have an increased aggregate maximum of $189,125 (includes amounts borrowed under both the subsidized and unsubsidized Stafford programs). Students borrowing the Stafford loan must repay their loan at a fixed interest rate of 6.8%. The student is responsible for payment of the interest but may elect to have the interest accrue and capitalize while enrolled.
4. Federal Graduate PLUS Loan: Graduate students enrolled at least half-time in a degree seeking program may borrow up to the budgeted cost of attendance less other aid. Students borrowing the Graduate PLUS must repay their loan at a fixed rate of 8.5%. Repayment of the loan begins 60 days after the last disbursement for the loan period occurs. A student may qualify for a deferment if they are enrolled in college at least half-time. Students should check with the lender for deferment eligibility.
5. Private Educational Loans: Graduate students enrolled at least half-time in a degree-seeking program may be eligible to borrow up to the total cost of attendance less other aid. The loan is not based on financial need. Rather, eligibility is based on subtracting other financial aid assistance from a student’s total cost of attendance. Loan eligibility is also based on the student borrower’s and/or co-borrower’s credit history and ability to repay the loan. The in-school or grace period interest rate is variable and usually based on the Prime, LIBOR or T-Bill rate plus 1-9% margin (which is determined by the borrower and/or co-borrower’s credit history). The student is responsible for payment of interest but may elect to have the interest accumulate and capitalize while enrolled at MWU. Repayment may begin immediately upon enrolling on a less than half-time basis or upon graduation. Students will need to check with their lender for further details on postponement or deferment of loan payments.

Additional information regarding scholarship and loan programs can be found in the Midwestern University Student Handbook or on the MWU web site. Students are encouraged to check with local religious organizations, clubs, professional associations, civic groups, and corporations concerning community scholarships provided to students. Students are also encouraged to check on the Internet, with local public and/or college libraries (in the general reference department), and on the MWU web site to find information on specific state, professional, and/or general interest scholarships.

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 MWU for all degree-granting programs. These standards apply to all students. The policy/procedure for “Assessing Financial Aid Status” is as follows:

Purpose
To establish, publish, and apply reasonable standards of satisfactory academic progress for financial aid eligibility as required by federal law for all students including those applying for or currently receiving federal, state, or institutional assistance and veterans’ educational benefits administered by MWU.

Policy
1. All full-time students must complete their academic program in the maximum time frame allowed for their specific program and must maintain academic standards as specified by their program in order to be considered progressing satisfactorily toward their degree (refer to the charts that follow and the detailed descriptions under each college). Students enrolled on less than a full-time basis will have their standard time frames for program completion prorated, and expected program completion per academic year (% of coursework completed in terms of credit hours or contact hours per quarter) prorated.

2. All students are required to accumulate credits toward graduation and are expected to successfully complete a minimum percentage of their academic program each year as specified by their academic program (refer to the charts that follow), not including those courses in which grades of incomplete were received, course withdrawal occurred, or remedial coursework was performed. Audited courses are also not included. All periods of enrollment will be included regardless of whether or not a student receives financial aid.

3. Students who are not maintaining the academic standards specified by their program at the end of an academic year will be placed on academic probation. The Director of Student Financial Services will subsequently place those students on financial aid probation for the following academic year. While on financial aid probation, students will be eligible to receive financial aid funds.

4. If a student’s academic progress remains unsatisfactory after the completion of the academic year in which he/she is on financial aid probation and/or he/she enters a second subsequent academic year on academic probation, the student will be placed on financial aid suspension and no financial aid funds will be awarded until satisfactory academic progress, as determined by the student’s program, has been attained. If a student achieves satisfactory academic progress in the academic year during which he/she is on financial aid probation, and is removed from academic probation, the student will be removed from financial aid probation. Financial aid eligibility will not be retroactive (backdated to the beginning of the academic year). Eligibility will resume and commence only for the subsequent quarter(s) in which satisfactory academic progress was attained. The financial aid probationary period will remain on the student’s record.

5. Students who are denied financial assistance on the basis of unsatisfactory academic progress may regain financial aid eligibility by satisfactorily completing, at their own expense, those courses required to attain the minimum academic standards specified by their program. This statement does not imply that
continuation in any academic program is the prerogative of the student.

6. A student will be allowed a maximum of two nonconsecutive financial aid probationary periods while enrolled at MWU. A student who does not attain satisfactory academic progress at the conclusion of his/her 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 his/her enrollment period at MWU. Permanent suspension can be waived at the discretion of the dean of the respective college.

7. A student placed on financial aid probation or financial aid suspension may appeal a decision by the Director of Student Financial Services to discontinue his/her financial aid (See Procedure, #5).

8. Satisfactory academic progress standards may be appealed if a student has personal mitigating circumstances that will not allow him/her to maintain a full-time academic load. An appeal will be considered if these personal mitigating circumstances will not allow the student to meet the expected program completion per academic year or the maximum timeframe for program completion. Examples of personal mitigating circumstances may include: (1) a severe injury or extended illness, (2) illness or death of a family member, or (3) disability (see procedure #8).

Procedure
1. The Office of Student Financial Services will be responsible for assessing the financial aid eligibility status of all students by monitoring their academic progress through documentation received from the deans' offices and the Office of the Registrar.

2. Following the end of each academic year, the Office of Student Financial Services will send a written notice to students who are not maintaining academic standards as specified by their program and who have been placed on academic probation, informing the student that they are on financial aid probation for the upcoming academic year. The letter will outline for the student the ramifications of being placed on financial aid probation, and inform him/her of the right to appeal. A copy of the written notice will also be sent to the academic dean of the college in which the student is enrolled, to the program director, if applicable, and to the chair of the Financial Aid Committee.

3. Following the end of each academic year, the Office of Student Financial Services will also send a written notice to students who are entering a second sequential year of academic probation, or who have unsatisfactorily completed a second, non-consecutive year of academic probation, informing the student that he/she is on financial aid suspension, effective immediately. The letter will outline for the student the ramifications of being placed on financial aid suspension, and inform him/her of the right of appeal. A copy of the written notice will also be sent to the academic dean of the college in which the student is enrolled, to the program director, if applicable, and to the chair of the Financial Aid Committee.

4. If a student is placed on financial aid suspension due to not meeting standards of satisfactory academic progress, the Office of Student Financial Services will reinstate his/her financial aid eligibility upon receipt of written confirmation from the dean of the respective college that standards of satisfactory academic progress have been met. The Office of Student Financial Services will provide written notification to the student of his/her compliance with standards of satisfactory academic progress, cancellation of his/her suspension and reinstatement of aid. This notification will also be provided to the college dean in which the student is enrolled, to the program director, if applicable, and to the chair of the Financial Aid Committee. Financial aid eligibility will not be reinstated for preceding quarters during the academic year in which the student did not meet standards of satisfactory academic progress.

5. A student on financial aid probation or financial aid suspension may appeal the decision of the Director of Student Financial Services by so indicating in writing to the chair of the Financial Aid Committee. The appeal must include:
   a. Reasons why the minimum academic standards of progress were not met;
   b. Reasons why his/her aid eligibility should not be terminated or should be reinstated; and
   c. A plan that demonstrates a means to bring his/her academic progress up to satisfactory standards within a period of one academic year.

   It is the student’s responsibility to provide appropriate documentation to support his or her appeal. This written appeal must be submitted to the chair of the Financial Aid Committee within seven (7) working days after receipt of notification of financial aid probation or suspension.

6. The Chair of the Financial Aid Committee and the committee members will review the appeal. Appeals that do not have the required documentation will be returned to the student for completion prior to review by the committee. The student will be permitted to present his/her appeal to the Financial Aid Committee in person upon written request to the Chair of the Financial Aid Committee. The Financial Aid Committee will vote and render a decision regarding the appeal. The chair of the Financial Aid Committee will send written notification of the decision to the student, the academic dean, and the program director within two (2) weeks of the receipt of the written appeal. In the event that the Financial Aid
Committee denies the appeal, the student may then appeal to the dean of their respective college. A student may appeal to the dean based upon the following:

a. New information;
b. Bias on the part of a committee member; or
c. Procedural error.

It is the student’s responsibility to provide appropriate documentation to support his or her appeal.

7. Students are limited to a maximum of two (2) appeals of their financial aid status during the course of their stay at MWU.

8. A student may appeal standards of satisfactory academic progress for financial aid eligibility as required by federal law based on personal mitigating circumstances. Appeals must be submitted in writing to the dean of his/her college. Appeals must include: (a) reasons why the standards of program completion per academic year and/or maximum timeframe completion cannot be met; (b) reasons why he/she should be granted a timeframe extension; (c) reasons why his/her aid eligibility should not be terminated. It is the student’s responsibility to provide appropriate documentation of the mitigating circumstances to support his/her appeal. The dean will review the appeal and render a decision within two (2) weeks of the receipt of the written appeal.

9. In the event that the dean denies the appeal, the student may then appeal to the President. A student may appeal to the President based upon the following: (a) new information, (b) bias on the part of the dean, or (c) procedural error.

### MWU Standards of Satisfactory Academic Progress for Financial Aid Eligibility

<table>
<thead>
<tr>
<th>Academic Program</th>
<th>Standard &amp; Maximum Time Frames for Program Completion (in years)</th>
<th>Expected Program Completion Per Academic Year (% of coursework completed)</th>
<th>Minimum Cumulative GPA Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard</td>
<td>Maximum</td>
<td></td>
</tr>
<tr>
<td>CCOM (full time 2008 matriculants)</td>
<td>4</td>
<td>6</td>
<td>17%</td>
</tr>
<tr>
<td>CCOM (extended studies 2008 matriculants)</td>
<td>5</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>CCP–Pharm.D.</td>
<td>4</td>
<td>6</td>
<td>17%</td>
</tr>
<tr>
<td>CHS–Biomedical Sciences M.B.S.</td>
<td>2</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>CHS–PA M.M.S.</td>
<td>2.25 (27 mos.)</td>
<td>3.33 (40.5 mos.)</td>
<td>30%</td>
</tr>
<tr>
<td>CHS–D.P.T.</td>
<td>2.80 (34 mos.)</td>
<td>4.25 (51 mos.)</td>
<td>24%</td>
</tr>
<tr>
<td>CHS–M.O.T.</td>
<td>2.25 (27 mos.)</td>
<td>3.33 (40.5 mos.)</td>
<td>30%</td>
</tr>
<tr>
<td>CHS–Psy.D.</td>
<td>4</td>
<td>7</td>
<td>14%</td>
</tr>
</tbody>
</table>

### Academic Status Chart for Determining Financial Aid Eligibility

<table>
<thead>
<tr>
<th>Academic Status</th>
<th>credit hours per quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>12 credit hours minimum</td>
</tr>
<tr>
<td>Three-Quarter Time</td>
<td>9–11 credit hrs</td>
</tr>
<tr>
<td>Half-Time</td>
<td>6–8 credit hrs</td>
</tr>
<tr>
<td>Less than Half-Time</td>
<td>5 credit hrs</td>
</tr>
</tbody>
</table>

Please Note: Classes in which students are auditing (receiving a pass/fail grade) 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, “F” Failure, or “W” Withdrawal.

The above policy is subject to change during the 2008–2009 academic year. If revised, an addendum will be distributed to all enrolled students.

### Leave of Absence for Financial Aid Eligibility Policy and Procedure

**Policy**

A. Any student requesting a leave of absence while enrolled at Midwestern University must adhere to the policies and procedures established by his/her 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, any student, including a student receiving Title IV or Title VII assistance, shall be granted a leave of absence under the following conditions:

1. The student must request the leave of absence in writing to the program director, if applicable, with approval from the dean of the college in which the
student is enrolled. The letter should clearly state the reason(s) for the requested leave of absence.

2. MWU may not charge the student for the leave of absence not for tuition or any educational expenses during the leave of absence. However, in order to continue coverage for long-term disability insurance and/or health and dental insurance, a student on an approved leave is obligated to pay his or her premium. In addition, a student living on campus will be responsible for paying his or her rent, utilities, and covered parking charges.

3. The leave of absence is limited to 90 days.

4. A subsequent leave of absence, not to exceed 90 days, may be granted for the same student due to an unforeseen circumstance such as military reason, jury duty, or a circumstance covered under the Family and Medical Leave Act of 1993 (FMLA).

5. Any additional leaves of absence requested may not exceed a total of 180 days in a 12 month period. This 12 month period begins with the first day of the first leave of absence.

6. A student on an approved leave of absence will retain his/her in-school status.

7. There must be a reasonable expectation that a student will return from a leave of absence to continue his/her enrollment at MWU.

B. For purposes of administering federal financial aid, a student who is receiving Title IV or Title VII financial aid funds and is granted an approved leave of absence that does not meet the above guidelines will be considered to have withdrawn from MWU (for financial aid purposes only). A student who is granted an approved leave of absence by his/her academic dean that exceeds 90 days must adhere to the leave of absence policy and reinstatement procedures established by the dean.

1. A subsequent leave of absence, not to exceed 30 days, may be granted for the same student due to an unforeseen circumstance such as a military reason, jury duty, or a circumstance covered under the Family and Medical Leave Act of 1993 (FMLA).

2. A student on an approved leave of absence will retain his/her in-school status.

C. If the student who is receiving financial aid fails to return from the leave of absence at the end of the approved period, the student will be considered to have withdrawn from MWU (for financial aid purposes only) 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 last day of an approved leave of absence to calculate a refund and return funds to the lender(s). If a student who is not receiving financial aid is granted a leave of absence by his/her academic dean and fails to return at the end of the approved period, the disposition of such a case will be decided on an individual basis.

D. Before final consideration is given to granting the requested leave of absence, a financial aid administrator will meet with the student and provide information regarding loan obligations, possible revisions in his/her aid package, deferment options, and consequences of not returning to MWU at the expiration of the leave of absence.

E. A student on an approved leave of absence may receive health, dental, and disability insurance coverage for the entire period of the leave, but must prepay the entire amount of the premiums during the leave. In addition a student may continue to live in on-campus housing for the duration of the leave, but must pay in advance per quarter or must establish a payment plan with Accounts Receivable Office. All outstanding balances must be paid in full prior to a student’s return from a leave of absence.

Procedure

A. Upon receiving written notification from the college dean that a student has been granted an official leave of absence, the Office of Student Financial Services will take the following steps:

1. Recalculate the loan period and cost of attendance based on months of actual enrollment to determine the total amount of financial aid eligibility for the academic year and, if necessary, correct resulting over-awards.

2. Notify the student and lender(s) of the following:
   1. Student’s last date of attendance;
   2. Beginning and ending dates of the approved leave of absence;
   3. Revised cost of attendance and financial aid eligibility;
   4. Revised loan period, if applicable;
   5. Revised graduation date, if applicable; and
   6. Revised student loan disbursement dates, if applicable.

B. The Office of Student Financial Services will promptly return to the lender any loan disbursements received during the approved leave of absence and, if applicable, request that the disbursement be reissued upon the student’s scheduled return to MWU.

C. If the student fails to return at the end of the federally approved leave of absence, the student will be considered to have withdrawn from MWU (for financial aid purposes only) as of the first day in which the leave of absence was granted. The Office of Student Financial Services will perform the following functions:

1. The Office of Student Financial Services will perform refund/repayment calculations.

2. The Office of Student Financial Services will promptly return any federal funds or student loan funds to lender(s) within 45 days of receipt of
notification of the student’s failure to return from the approved leave of absence.

3. The Office of Student Financial Services will attempt to contact the student by telephone for a personal exit interview consultation.

4. If the student cannot be contacted by telephone, the financial aid administrator will mail exit interview materials containing information on borrower rights/responsibilities, loan repayment options, loan deferment options, consolidation, total loan indebtedness and consequences of default directly to the student.

5. The Director of Student Financial Services will notify the college dean and the program director, if applicable, of the student’s withdrawal status and the impact the withdrawal has on the student’s financial aid award package.

Please Note: 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 of the information contained therein, and to apply such revision to registered and accepted students as well as to new admissions.

Notification of Withdrawal

A. A student’s withdrawal date is the earlier of the date the student officially notified MWU of the intent to withdraw, or the student’s last date of attendance at a documented academically related activity (exam, turning-in of assignment, academic counseling, advisement, etc.), or the midpoint of the period for a student who leaves without notifying the institution.

B. A student must provide written notification and documentation, if applicable, to the appropriate academic dean or program director, stating the reason for withdrawal from MWU. If approved, the Dean will conditionally approve a withdrawal until all clearances are obtained.

C. The student must receive clearance of his/her withdrawal from the MWU departments on the online.midwestern.edu leave system within seven calendar days from the date of Dean’s conditional approval. This time frame will allow 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.

D. Upon submission of all completed documentation and adherence to all clearance procedures, the dean will provide an official letter of withdrawal to the student.

Return of Title IV Funds Policy/MWU Refund Policy

In establishing a refund policy, MWU has instituted and adhered 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). MWU’s refund policy will include the following guidelines:

A. Title IV funds includes the following programs available at MWU, subsidized Federal Stafford loans, unsubsidized Federal Stafford loans, Federal Perkins loans, 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.

B. 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 refunded.

C. Withdrawal After the First Day of Classes Through 60% of the Quarter for Which the Student is Charged

• Tuition and student services fee charges will be prorated on a daily basis proportional to the number of days completed divided by the number of days in the payment period for which the student was enrolled.

• University housing for the quarter will be refunded according to the terms on the housing contract.

• University meal plans will be prorated based on the remaining weeks in the quarter.

• For students on a leave of absence, disability and health insurance fees paid to the University for the quarter will not be refunded. A student will be obligated to pay his/her premium through the end of the quarter. Students withdrawing from the University may be eligible for a partial refund of disability insurance fees.

D. Withdrawal After 60% of the Quarter for Which the Student is Charged

• No refund of tuition or student services fee will be made.

• University housing for the quarter will be refunded according to the terms on the housing contract.

• All refunds on University meal plan costs will be prorated based on the remaining weeks in the quarter.

• For students on a leave of absence, disability and health insurance fees paid to the University for the quarter will not be refunded. A student will be obligated to pay his/her premium through the end of the quarter. Students withdrawing from the University may be eligible for a partial refund of disability insurance fees.

E. If a Subsequent Quarter(s) Has Been Prepaid

• 100% of tuition, student services fee, University housing, health insurance fee, and disability insurance fee will be refunded.
F. All Non-institutional Costs (living, personal, transportation, and book/supply expenses)
   • Will be prorated based on the percentage of the quarter completed.

G. All refunds will be distributed in the following order as prescribed by federal law:
   1. Unsubsidized Federal Stafford Loan
   2. Subsidized Federal Stafford Loan
   3. Federal Perkins Loan
   4. Federal Graduate PLUS Loan
   5. Other Title IV Aid Programs
   6. Other Federal Sources of Aid (PCL)
   7. Other state or private aid *
   8. Institutional Aid (MWU Unmet Need Scholarship, departmental loans and scholarships)**
   9. 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 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 charges that he/she owes to the institution.

H. Students who borrowed and received monies from the unsubsidized/subsidized Federal Stafford loans, Federal Graduate PLUS loans, Federal Perkins loans, institutional (MWU) 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).

I. Upon request by the student, examples of refund worksheets and calculations will be available for distribution in the Office of Student Financial Services.

J. Students who feel that individual circumstances warrant exceptions from published policy may appeal the Return of Title IV Funds policy. Student appeals need to be submitted to the academic dean of the appropriate college.

**Tuition Payment**
Tuition for full-time students is an annual tuition and may be payable over 2, 3, or 4 quarters per year depending on the academic schedule of the student, except for Health Professions and NTPD (Non-Traditional PharmD), which are all billed on a per credit hour basis. Any student enrolled where the course load meets the full-time definition will pay full-time tuition. Students exceeding the maximum prescribed course load will pay overload charges. Students enrolled in an extended studies program will be charged the annual tuition rate for their extra year of enrollment. Students who extend their program for one quarter or less will be charged the quarterly tuition rate or per credit hourly rate depending on the program and their enrollment status.

We encourage all students to pay their bills via our secure website at http://online.midwestern.edu. Options for payment include debit card, credit card or direct debit from your checking or savings account. MWU accepts American Express, Discover, MasterCard, and Visa for tuition payments. 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. Tuition due dates will be publicized quarterly via MWU email. If tuition payments are made through the mail, please address the envelope as follows:

Midwestern University
Attn: Student Financial Services
555 31st Street
Downers Grove, IL 60515

Students who fail to pay tuition at the designated times will have their account processed according to Midwestern University’s Overdue Accounts Policy.

**Fee Charges**
All full and part-time degree seeking students enrolled in a full academic year (3 or 4 quarters) must pay the student services fee. Students who are enrolled 3 or 4 quarters per year will be charged the full annual student services fee. 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% and 50% of the annual student services fee, respectively. The student services fee funds such areas as the recreation center, sports intramurals, counseling services, operation of the student lounge, student council, student representation in government, graduation fees, and student events on and off-campus.

**Add/Drop Charges**
The last day to add or drop a course is the second Friday of each quarter. Charges for courses added/dropped by this date will be adjusted according to the student’s new in-school status (i.e. full-time, part-time, half-time, etc.). Please note that if all courses are dropped and a student is determined to be withdrawing for the entire quarter, tuition and fee charges may be assessed and will be based upon guidelines stated in the Return of Federal Title IV Funds/MWU Refund Policy.

**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 academic dean is required before students can begin a quarter with a part-time course load. In such circumstances, tuition is charged on a per credit hour basis. The rate for each quarter hour is calculated based on the current quarterly full-time tuition divided by 12 for
credit hours. The per credit hourly rate is multiplied by the enrolled credit hours to equal the tuition charge for the quarter.

**Course Overload**

Students desiring to register for more than the prescribed course load in a given quarter are considered to have registered for a course overload. These students must receive prior approval from the college dean before starting the quarter. Tuition in addition to full tuition will be charged for each additional credit hour above the prescribed course load on the following basis:

- The credit hour rate for courses that cause a course overload will be calculated based on the current quarterly full-time tuition rate divided by the current quarter’s prescribed course load.
- The per credit hour rate is multiplied by the enrolled credit hours to equal the tuition charge for the quarter.
- Overloads are defined as follows: CCOM > 31 credit hours; CCP > 21 hours; CHS Graduate > 23 hours.

**Payment Plans**

The Office of Student Financial Services offers a payment plan that allows a student to divide his/her unpaid balance into equal monthly payments over the course of a quarter. The following are policies regarding the payment plan:

1. It will be mandatory for students to utilize MWU’s electronic billing and payment system, available at http://online.midwestern.edu, to set up the payment plan.
2. Payment plans will be effective for the entire quarter.
3. A fee of $20 per quarter will be charged per quarter. This fee is to cover costs associated with payment plan enrollment, maintenance, billing, collections, and monthly follow-up on the plans.
4. The plan is interest free.
5. All financial aid must be applied toward the unpaid balance due first before accepting student payments.
6. A 1% late fee will be applied to accounts at 10 days late, and the balance will be accelerated to fully due.
7. The unpaid balance must be paid by the end of each quarter. (Example: Student’s balance due is $10,500. The quarter is three months long. $10,500/3 = $3,500 payment per month.)
8. Student must not have been late on any prior MWU payment plans.
9. A student’s account must be paid in full from the previous quarter.

**Prepayment Plans**

Any student has the option to prepay the entire amount of tuition for his/her program at the tuition rate that is effective for the first year of study. Prepayment of the entire program’s tuition must be paid in full by the first day of matriculation.

Any student may prepay a year at a time of tuition at the current rate. This tuition must be prepaid one full academic year in advance. For example, a student matriculating in the 2008-2009 academic year in September 2008 who wishes to prepay his/her 2009-2010 tuition must make this prepayment by the first day of matriculation in September 2008. If this same student does not choose to prepay at matriculation but later decides for example to prepay year three at the current year two rate, this prepayment for year three must be made by the first day of year two classes. Any exceptions to this policy must be approved by the University Director of Student Financial Services & Registrars.

**Credit Cards**

The Student Financial Services Office does accept credit cards as payment of tuition, student services fees, disability/health insurance fees, and institutional housing; however, the following requirements do apply:

1. Mastercard, Visa, Discover and American Express are accepted.
2. All financial aid funds must be applied to the balance first before using a credit card for payment.
3. When using a parent’s credit card, the Student Financial Services Office must receive a memo authorizing the charges or have phone authorization from the parent.
4. Credit card payments will not be accepted on accounts already paid in full unless the student provides written authorization to hold the pre-payment for future quarters in which the student owes an outstanding balance after applying financial aid funds.

**Direct Deposit**

Direct deposit for financial aid refund checks is mandatory. Students requesting to appeal this mandatory requirement must submit a letter to the Director of Student Financial Services explaining the circumstances that make it impossible for funds to be electronically transmitted to the student’s personal checking or savings account.

MWU will not be held responsible for any fees or charges that result due to checks written when a student had insufficient funds in his/her 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 deposit has cleared prior to writing checks.

A direct deposit made in error must immediately be returned to MWU.
Overdue Accounts
The Office of Student Financial Services will follow up with students to collect past due accounts. This will enable the Office of Student Financial Services to encourage all students to pay their bills on time so that they are not dropped from the rolls of their appropriate college.

Consequences of past due accounts can include any and all of the items listed below:
1. 1% late fee on unpaid balance is assessed at 10 days delinquent for all balances of $500 or more. Balances of $499 or less are assessed a flat $5.00 late fee. These fees are assessed on a monthly basis throughout the quarter until the account becomes current.
2. Past due notices will be sent via email.
3. Follow up phone calls will be made to your residence.
4. Notification of delinquency will be made to your Dean’s office.
5. Dropped from rolls of the college.
6. Will not be permitted to attend or participate in class, participate in clinical rotations, take examinations, or receive any academic credit. Will lose student status.
7. Suspension and/or termination from classes MWU.
8. Account reported to collection agency for further action.

All students with accounts 30 days delinquent may be terminated from MWU.

Note: A student may be exempt from the payment deadlines and permitted to continue in school without risk of suspension. However, students must notify the Office of Student Financial Services 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:

a. Circumstances beyond the student’s control (i.e., non-arrival of financial aid, scholarship, or grant funds by the due date);
b. A payment plan has been approved by the Office of Student Financial Services;
c. Any documented extraordinary circumstance that prevents the student from paying his/her account balance on time.

Returned Checks
A $35.00 fee will be charged on any returned check. After two returned checks the students will be required to pay by cashier’s check or money order. No exception will be made.

Downers Grove Tuition and Fees (for academic year 2008-2009)
Please Note: Tuition rates will be subject to change each academic year for all enrolled students. Historically, tuition has increased between 2% and 7% annually.

<table>
<thead>
<tr>
<th>Program</th>
<th>Residency</th>
<th>Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCOM</td>
<td>In-State</td>
<td>$40,122</td>
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<tr>
<td></td>
<td>Out-of-State</td>
<td>$44,643</td>
</tr>
<tr>
<td>CCP</td>
<td>In-State</td>
<td>$25,849</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$28,146</td>
</tr>
<tr>
<td>PA</td>
<td>In-State</td>
<td>$28,347</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$30,388</td>
</tr>
<tr>
<td>PT</td>
<td>In- and Out-of-State</td>
<td>$26,699</td>
</tr>
<tr>
<td>OT</td>
<td>In-State</td>
<td>$25,569</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$27,598</td>
</tr>
<tr>
<td>Psy.D.</td>
<td>In- and Out-of-State</td>
<td>$22,235</td>
</tr>
<tr>
<td>MBS</td>
<td>In- and Out-of-State</td>
<td>$24,383</td>
</tr>
<tr>
<td>Non-traditional Pharm.D. (didactic)</td>
<td>In- and Out-of-State</td>
<td>$647/credit hr.</td>
</tr>
<tr>
<td>Non-traditional Pharm.D. (experiential)</td>
<td>In- and Out-of-State</td>
<td>$266/credit hr.</td>
</tr>
</tbody>
</table>

For the 2008-2009 academic year, all programs with the exception of the Non-traditional Pharm.D. Program, have a yearly activity fee (currently $447). Additional fees may be assessed including disability insurance, copy fees, or other charges as determined by each individual college. Students enrolled on a less than full-time basis will be charged tuition based on a per credit hour fee as determined by the Office of Student Financial Services. All rates and fees are subject to correction if they are stated in error.

Illinois Residency Definition for Purposes of the Health Services Education Grant Act
The Illinois Board of Higher Education (IBHE) administers the Health Service Education Grant Act (HSEGA) grant program. The HSEGA grant is awarded to non-public, not-for-profit institutions with programs in medicine, health science, pharmacy, and medical residency. Not all health science programs are eligible for this grant. Grant allocations are awarded to enrolled students in the form of a tuition rate reduction, which MWU calls “in-state tuition.”

For a student to qualify for the HSEGA grant the following requirements must be met: The graduate student must have lived in the State of Illinois for the 12 consecutive months prior to matriculation and the student must not have attended a postsecondary educational institution during those 12 months.

A student’s grant eligibility status will remain the same for his/her entire education at Midwestern University.

(Source: Title 23: Educational & Cultural Resources; Subtitle A: Education; Chapter II: Board of Higher Education; Part 1020 Health Services Education Grants Act; Section 1020.30 Definitions).
**MIDWESTERN UNIVERSITY ACADEMIC CALENDAR 2008-2009**

**SUMMER QUARTER 2008**

- PS III AGO Rotation 1/PS IV AGO Rotation 5
- NTPD Summer Quarter
- PA II Academic Year Begins
- PA I, PT I Orientation
- PA I OT II/III PT I/II/III MBS II Classes Begin
- MS III/ IV Clinical Rotations Begin
- PA II Rotations Begin
- PA III End-of-Year Week on Campus
- PSY IV Internship
- Independence Day (No Classes) Library Closed
- MS IV Clinical Integration Seminar (CIS)
- PS III/IV Pharm.D. Seminar
- PS III AGO Rotation 2/PS IV AGO Rotation 6
- PA I PT I/II/III OT II MBS II Last Day of Classes
- PA I PT I/II/III OT II MBS II Quarterly Exams
- PA III-MMS Degree Completion Date
- PS III/IV Pharm.D Seminar
- PA I PT I/II/III OT II MBS II Quarter Break
- OT III Fieldwork Level II B
- Grades Due

**FALL QUARTER 2008**

- MS I Orientation
- MS I/II Classes Begin
- Labor Day (No Classes) Library Closed
- PSY IV Internship
- PS IV Fall Quarter
- PS IV Non-AGO Rotation 3
- PS I OT I MBS I PSY I Orientation
- CCP AGO/NTPD/CHS Fall Graduation
- PS I/II/III Fall Quarter
- PS I/II/III PA I PT I/II/III OT I/II MBS I/II PSY I/II/III Classes Begin
- CCP Dean’s Convocation (11:10 a.m.)
- NTPD Fall Quarter
- White Coat Ceremony
- PS IV Pharm D Seminar
- PS IV Non-AGO Rotation 4
- PS I/II/III/IV Career Fair
- OT III Last Day of Classes
- MS I/II PS I/II/III PA I PT I/II/III OT I/II MBS I/II PSY I/II/III Last Day Classes
- MS I/II PS I/II/III PA I PT I/II/III OT I/II MBS I/II PSY I/II/III Exams
- OT III/MOT Degree Completion Date
- PS IV Pharm D Seminar
- MS I/II PS I/II/III PA I PT I/II/III OT I/II MBS I/II PSY I/II/III Quarter Break
- Grades Due

**WINTER QUARTER 2008-09**

- PS IV Winter Quarter
- PS IV Non-AGO Rotation 5
- MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Classes Resume
- PSY IV Internship

**JUNE 2, 2008 – AUGUST 22, 2008**

- June 2 – July 11, 2008
- June 2 – August 22, 2008
- June 2 – 3, 2008
- June 9, 2008
- June 9, 2008
- June 16, 2008
- June 16 – 20, 2008
- July 1, 2008
- July 4, 2008
- July 7–August 3, 2008
- July 11, 2008
- July 14-August 22, 2008
- August 15, 2008
- August 18 – 22, 2008
- August 22, 2008
- August 22, 2008
- August 23 – September 7, 2008
- August 25 – November 14, 2008
- August 26, 2008

**AUGUST 11, 2008 – NOVEMBER 21, 2008**

- August 4 – 8, 2008
- August 11, 2008
- September 1, 2008
- September 2, 2008
- September 2 – November 21, 2008
- September 2 – October 10, 2008
- September 3 – 4, 2008
- September 8, 2008
- September 8 – November 21, 2008
- September 8 – November 11, 2008
- September 8 – November 11, 2008
- September 9, 2008
- September 26, 2008
- October 10, 2008
- October 13 – November 21, 2008
- October 14 – 15, 2008
- November 14, 2008
- November 14, 2008
- November 17 - 21, 2008
- November 18, 2008
- November 21 2008
- November 22-30, 2008
- November 25, 2008

**DECEMBER 1, 2008 – FEBRUARY 27, 2009**

- November 24, 2008 - February 27, 2009
- November 24, 2008 - January 16, 2009
- December 1, 2008
- December 1, 2008
PA II Mid-Year Term on Campus
PT III Practicum III
NTPD Winter Quarter
PA II Winter Recess
MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Winter Recess
PS IV Winter Recess
Library Closed
PA II Rotations Resume
MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Classes Resume
PS IV Pharm D Seminar
PS IV Non-AGO Rotation 6
Martin Luther King, Jr. Day (No Classes) Library Closed
PT III Quarter Break
PT III Practicum IV
MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Last Day of Classes
PS IV Pharm D Seminar
MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Quarter Exams
MS I/II PS I/II PA I PT I/II OT I/II MBS I/II PSY I/II/III Quarter Break
SpRING QUARTER 2009
MS I/II PS I/II/III PA I PT I/II OT I/II MBS I/II PSY I/II/III Classes Resume
PS IV Internship
PT II Practicum
OT I/II Fieldwork I (off-campus)
NTPD Spring Quarter
OT I/II Classes Resume (on-campus)
PS III Pharm D. Seminar
PS III AGO Rotation 4 /Non-AGO Rotation 2
PT III – Degree Completion Date
MS I/II PS I/II PA I PT I OT I/II MBS I/II PSY I/II/III Last Day of Classes
PT II Quarter Break
MS IV Last Day of Rotations
MS I/II PS I/II PA I PT I OT I/II MBS I/II PSY I/II/III Quarterly Exams
PS III Pharm D Seminar
PA I Quarter Break
OT I MBS I/II PSY I/II/III Quarter Break
OT II Quarter Break
MS III Last Day of Rotations
PT I Practicum I
CCOM/CHS Graduation Ceremonies
Memorial Day (No Classes) Library Closed
Grades Due
OT III Fieldwork Level II Fieldwork A

MARCH 9, 2009 – MAY 22, 2009
March 2 – April 10, 2009
March 2 – May 22, 2009
March 6, 2009
March 9, 2009
March 9-May 15, 2009
March 9 - 13, 2009
March 9 – May 22, 2009
March 16, 2009
April 10, 2009
April 13 – May 22, 2009
May 1, 2009
May 15, 2009
May 16 – June 14, 2009
May 17, 2009
May 18 – 22, 2009
May 22, 2009
May 23 – May 31, 2009
May 23 – June 14, 2009
May 23 – 31, 2009
May 24, 2009
May 25 – June 12, 2009
May 22, 2009
May 25, 2009
May 26, 2009
June 1 – August 21, 2009
MISSION
Chicago College of Osteopathic Medicine educates osteopathic physicians to provide quality, compassionate care; promotes the practice of osteopathic medicine, lifelong learning, research and service.

CCOM Values:
The Achievement of Educational Excellence Through:
- Leadership
- Teamwork
- Commitment
- Integrity
- Professionalism
- Diversity
- Osteopathic Philosophy

Vision
Every member of the CCOM community exemplifies its core values to provide relationship centered teaching and care.

Community List
- Student/Interns/Residents
- Alumni
- Clinicians
- Faculty/Administration
- Staff
- Patients

ACCREDITATION
The Chicago College of Osteopathic Medicine is accredited by the 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).

For further information, please contact the American Osteopathic Association, 142 E. Ontario St., Chicago, IL 60611; 800/621-1773.

DEGREE DESCRIPTION
Upon graduation from Chicago College of Osteopathic Medicine, the Doctor of Osteopathic Medicine (DO) 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 DO degree, the graduate is eligible for postdoctoral residency training in all fields of medicine.

ADMISSIONS
The Chicago College of Osteopathic Medicine (CCOM) considers for admission those students 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.

Competitive Admissions
Within its competitive admissions framework, the College uses multiple criteria to select the most qualified candidates from an applicant pool that exceeds the number of seats available. For the class that matriculated in the fall of 2007, CCOM received more than 4,500 applications for its 160 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 two to four weeks after their interview.
date. To be competitive within this process, candidates should apply early in the admissions cycle.

**Admission Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with Lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>General Chemistry with Lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>Organic Chemistry with Lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>Physics w/lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>English Composition</td>
<td>6 Semester/9 Quarter hours</td>
</tr>
</tbody>
</table>

1. Complete the above prerequisite courses. No grade less than C will be accepted for any prerequisite course. (A grade of C- will not be accepted.)
2. To be competitive, an applicant should possess both a science and total GPA over 3.00 on a 4.00 scale as well as a bachelor’s degree. A minimum science and overall GPA of 2.75 on a 4.00 scale is required to receive a supplemental application.
3. Complete a bachelor’s degree at a regionally accredited college or university prior to matriculation. Applicants participating in special affiliated programs with the College and other exceptions to this policy will be considered on an individual basis.
4. Submit competitive scores on the Medical College Admissions Test (MCAT). Students who entered CCOM in 2007 had an average MCAT score of 27. The MCAT exam must have been taken no more than 3 years prior to the planned enrollment year. To register for the exam, contact the MCAT Program Office at 319/337-1357 or visit www.aamc.org/students/mcat for information. The exam is offered many times throughout the year.
5. Two letters of recommendation are required. One letter must be from either a premedical advisory committee or science professor who has taught the applicant. The second letter must be from either a D.O. or an M.D. Letters from osteopathic physicians are strongly recommended. Letters written by immediate family members will not be accepted. All letters of evaluation must be submitted by the evaluators. The Office of Admissions does not accept letters submitted by students.
6. Demonstrate a sincere understanding of and interest in osteopathic medicine.
7. Reflect a people/service orientation through community service or extracurricular activities.
8. Reflect proper motivation for and commitment to health care as demonstrated by previous work, volunteer, or other life experiences.
9. Possess the oral and written communication skills necessary to interact with patients and colleagues.
11. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.

12. Students must sign a statement that they meet the technical standards upon their acceptance. Candidates who may not meet the technical standards are encouraged to contact the Director of Admissions to discuss and identify what accommodations, if any, the College would need to make in order that the candidate might be able to meet the standards.

**Technical Standards for Admission**

The educational mission of CCOM is to produce competent osteopathic physicians, emphasizing primary care but including traditional specialties and subspecialties. Because the D.O. degree signifies that the holder is a physician prepared for entry into the practice of medicine within postgraduate training programs, it follows that graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care, including direct hands-on analysis and treatment. Accordingly, the following abilities and expectations must be met by all students admitted to CCOM with reasonable accommodation. A candidate must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate 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 somatic sensation 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 his/her 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.

International Applicants
International applicants who are not US citizens should contact the admissions department for specific instructions.

Application Deadline
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.

Application Process
• **Step One: AACOMAS Application – January 1, 2009 Deadline**
  To initiate the application process, all applicants must apply online via the centralized application service administered by AACOM at http://aacomas.aacom.org/. The AACOMAS application is typically available in early June. As part of this process, you must submit official MCAT scores (for tests taken no earlier than April 2006) and official transcripts directly to AACOMAS. 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 1.

• **Step Two: CCOM Supplemental Application – March 2, 2009 Deadline**
  Upon receipt of the AACOMAS application from the application service, the Midwestern University Office of Admissions will email the supplemental application to all applicants who possess both a minimum overall GPA and science GPA of 2.75. Applicants must complete and submit the supplemental application form with all required materials, and 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 2, 2009.

• **Step Three: Letters of Recommendation – March 2, 2009 Deadline**
  Applicants must submit two letters of recommendation. One letter must be from a prehealth advisory committee or science professor who has taught the applicant. The second letter must be from a physician, either a D.O. or an 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 2, 2009. Letters must adhere to the following guidelines:
  - The applicant’s full legal name and social security number must be on the front page of the recommendation. Please provide this information to the evaluator.
  - Letters must be sent directly from the evaluator and must be printed on letterhead stationary, which includes the complete contact information for the evaluator.
  - The evaluator’s academic degree must be listed (e.g., Ph.D., D.O., M.D.).
  - If you have previously applied to CCOM, you must submit new letters of recommendation.
  - Letters from immediate family members will NOT be accepted.

• **Step Four: Completed Applications – March 2, 2009 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 2, 2009. Only completed applications received by the Office of Admissions on or before the deadline date will be reviewed for potential fall 2009 enrollment.

• **Step Five: Application Review/Interview Decisions**
  CCOM uses a rolling admissions process to review completed applications and 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. Please complete your file as soon as possible to be competitive in this process and to ensure full consideration of your application.

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 your application information on the university website will be sent to you by the Office of Admissions. Please keep the Office of Admissions informed of any changes to your mailing address and email address. All requests for withdrawing an application must be done in writing. Applicants are expected to act professionally in their interactions with AACOMAS and with CCOM. Please follow AACOM’s applicant protocol at all times.

Interview/Selection Process
To be considered for an on-campus interview, applicants must meet all of the admissions requirements listed
revised. After the Office of Admissions receives all of the required application materials, the applicant’s file is reviewed to determine if the applicant merits an invitation to interview, based on established criteria of the admissions committee. Applicants who are invited to interview will be contacted by the Office of Admissions and instructed on how to schedule their interview via our 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.

If an applicant accepts an interview, he/she joins several other interviewees in meeting with members of a three-person interview panel—a panel selected from a volunteer group of basic scientists, current students, administrators, and clinicians. Team members question each applicant about his/her academic, personal, and health care preparedness for medical school, rating the applicants on a standardized evaluation form relative to each of these variables. At the conclusion of the interviews, the team members forward their evaluation for each applicant 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 Dean—via the Office of Admissions—notifies the student of his/her status within three or four weeks of the interview.

The interview process typically begins in September and ends in April.

Reapplication Process

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

To initiate the reapplication process, the applicant must submit an application to AACOMAS. The application is then processed in the same manner as any other.

Matriculation Process

To initiate the matriculation process, newly accepted students must submit both their signed matriculation agreement and deposit by the designated due date. To conclude the matriculation process, a student must do the following:

1. Submit deposit monies and administrative fees by the dates designated in his/her matriculation documents—the entire amount is applied toward the student’s first quarter tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the college. If students fail to submit all official final transcripts by the stated deadline, then their acceptance or continued enrollment in the college may be jeopardized. (Note: The information provided on the student’s AACOMAS application is verified against the information provided on the student’s transcript(s). If the course and degree information on the application cannot be verified, the student’s offer of admission is revoked.)
3. Submit a completed medical file as instructed in the information sent by the Office of Student Services.
4. Submit proof of medical insurance coverage. The student may select either a plan offered by CCOM or an CCOM-approved outside carrier.
5. Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CCOM (for non–U.S. citizens/nonpermanent residents only).
6. Submit additional documents as required by the Office of Admissions.
7. Pass a criminal background check.
8. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.
9. Complete physical exam and submit form.
10. Sign Credit Policy Statement

If a student either fails to satisfy these matriculation requirements and/or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat at the College. The student receives no further notification relative to this forfeiture.

Dual Admission Program

Dual admission programs are currently in place with Illinois Institute of Technology and University of St. Francis, Fort Wayne, IN. Details of these programs are available through the Admissions department.

Commitments made prior to matriculation at CCOM

In the event that you have made a commitment prior to matriculating at CCOM, you must understand that there may be curricular priorities that are not compatible with your tentative schedule. It is required that a student make a request of each course director and department chair during the first week of the academic year regarding requests for time off. Every effort will be made to accommodate the commitment. MWU does not guarantee that prior commitments will be approved.
Deferred Admission
Deferments are only considered under extreme circumstances where a student is physically unable to begin classes. If granted, a student may defer their admission for one year only.

To initiate the deferred admission process, a student must make his/her request in writing to the Director of Admissions by the date designated in his/her matriculation agreement. The request must be accompanied by a letter from the student’s physician documenting the conditions that prevent the student from beginning his/her medical education. The Director then responds to the request with a letter detailing the specific conditions associated with deferral. Typically, the conditions include the following:

1. The student must submit his/her remaining deposit monies by the first week of December during the year preceding his/her matriculation at the time of request of deferral.
2. The student must provide a letter from his/her physician stating that the student can begin his/her medical education.

The student is NOT required to interview again or submit another supplemental application or letters of evaluation.

Transfer Admission
CCOM may elect to accept transfer students from other U.S. osteopathic medical schools as long as these students are in “good academic standing” and have an acceptable reason(s) for seeking a transfer. By the Commission on Osteopathic College Accreditation (COCA) standards, the last 2 years of instruction must be completed within the college of osteopathic medicine granting the DO degree.

To be considered for transfer, a student must meet the College’s general requirements for admission. He/she must also observe the following procedure:

1. All inquiries for transfer to CCOM must be submitted to the Admissions Office.
2. The Admissions Office will confirm the availability of rotation sites through the Division of Clinical Education.
3. If sites are available, an application is sent.
4. Complete application is returned to the Admissions Office and must also include: transcripts from the COM, class rank (must be in top 50%), statement of reason for transfer, Dean’s letter of “Good Academic Standing,” a letter of reference from the Dean of Students, and COMLEX Level 1 scores, if available. All required application materials must be received by the Office of Admissions on or before January 1.
5. Completed application is forwarded to the Associate Dean for Clinical Education.
6. Application is reviewed by the Associate Dean for Clinical Education who conducts an interview with the applicant and the Chairs.
7. Their recommendation is forwarded to the Dean of CCOM.
8. Applicant is notified by the Dean of the final decision.

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 structures and functions 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 health care. In recognition of this approach, CCOM has developed, and continues to refine, a four-year curriculum that educates students in the biopsychosocial approach to patient care, as well as the basic medical arts and sciences.

Within this curricular format, CCOM students spend their first two years both completing a rigorous basic science curriculum and preparing for their clinical studies, including early clinical contact experiences. During their third and fourth years, students rotate through a variety of clinical training sites accruing an impressive 88 weeks of direct patient care experience. By stimulating intellectual curiosity and teaching problem solving skills, the CCOM curriculum encourages students to regard learning as a lifelong process.

Combined D.O./Ph.D. Program
Sophomore students in good academic standing may apply to the Dean of CCOM for the D.O./Ph.D. program. This program allows students interested in academic medicine to pursue a Ph.D. degree at an area university while simultaneously completing the requirements for the D.O. degree. Students participating in this program usually start their combined studies during their junior year.

Curriculum

<table>
<thead>
<tr>
<th>First Quarter (14 weeks)</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>ANAT 1501 Gross Anatomy/Embryology</td>
<td>13</td>
</tr>
<tr>
<td>ANAT 1511 Histology</td>
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<tr>
<td>BIOC 1500 Biochemistry</td>
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<tr>
<td>BIOC 1501 Biochemistry I</td>
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<tr>
<td>FMED 1515 Clinical Medicine I</td>
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<tr>
<td>IMED 1501 History of Medicine</td>
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<tr>
<td>OMED 1501 Osteopathic Manipulative Medicine</td>
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<tr>
<td>PSYC 1501 Psychiatry I and II</td>
<td>2</td>
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<td><strong>Total</strong></td>
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### Second Quarter (10 weeks)

- **ANAT 1501** Gross Anatomy/Embryology Continuation 5
- **BIOC 1502** Biochemistry II 5
- **FMED 1500** Patient Physician Dialog 5
- **FMED 1516** Introduction to Clinical Medicine II 5
- **OMED 1502** Osteopathic Manipulative Medicine II 5
- **PHYS 1501** Physiology I 5

### Third Quarter (10 weeks)

- **ANAT 1521** Neuroscience 8
- **FMED 1517** Clinical Medicine III 2
- **OMED 1503** Osteopathic Manipulative Medicine III 2
- **PHYS 1502** Physiology II 5
- **PSYC 1503** Psychiatry III 2

### Electives *

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<tr>
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### Second Year

#### First Quarter (14 weeks)

- **FMED 1630** Practice of Medicine I 6
- **MICR 1501** Immunology 3
- **MICR 1601** Microbiology I 5
- **OMED 1604** Osteopathic Man. Med. IV 2
- **PATH 1601** Pathology I 5
- **PHAR 1601** Pharmacology I 4

### Electives *

<table>
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<tr>
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### Second Quarter (10 weeks)

- **FMED 1501** Patients, Physicians & Society 1
- **FMED 1631** Practice of Medicine II 7
- **MICR 1602** Microbiology II 5
- **OMED 1605** Osteopathic Manipulative Medicine V 2
- **PATH 1602** Pathology II 6
- **PHAR 1602** Pharmacology II 4
- **PSYC 1604** Psychiatry IV 1

### Electives *

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### Third Quarter (10 weeks)

- **FMED 1632** Practice of Medicine III 7
- **OMED 1606** Osteopathic Manipulative Medicine VI 2
- **PATH 1603** Pathology III 5
- **PHAR 1603** Pharmacology III 2
- **PSYC 1605** Psychiatry V 2

### Electives *

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</table>

### Fourth Year Rotations (12 months) (Option 1)

- **CLRO 1800** Elective Rotations II-V 4 each
- **EMED 1805** Emergency Medicine (4 weeks) 4
- **FMED 1743** Clinical Integration Seminar 3
- **FMED 1801** Osteopathic Manipulative Medicine (4 weeks) 4
- **FMED 1802** Family Medicine II (4 weeks) 4
- **IMED 1802** Internal Medicine Rot. III-V 8
- **SURG 1802** Surgery Rotation III 4

### Year Total 47

### Electives *

<table>
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### Total Curricular Hours

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<td>47</td>
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<tr>
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</table>

The Chicago College of Osteopathic Medicine reserves the right to alter its curriculum however and whenever it deems appropriate.

### Elective Courses

The Registrar publishes annually a listing of available elective courses that have been approved by the Curriculum Committee. Electives are short, in-depth courses in a variety of areas related to medicine (e.g., drug and alcohol abuse, computers in medicine, etc.), which are designed to broaden understanding of important topics. These courses are open to CCOM students in the spring quarter of their first year and in all three quarters of their second year. Failures in elective courses carry the same weighting as failures in core curriculum courses such as anatomy, biochemistry, etc.

The specific list of electives offered will vary.

- Advanced Gross Anatomy Dissection
- Advanced Studies in OMM
- Agents of Biological & Chemical Warfare & Terrorism
- Cardiovascular Pharmacology
Students must complete and successfully pass required clinical rotations in the following disciplines: family medicine, internal medicine, surgery, pediatrics, psychiatry, osteopathic manipulative medicine, obstetrics/gynecology, and emergency medicine. These rotations cannot be done at out-of-system sites.

Students must also complete elective rotations in recognized fields of medicine that include the following areas: anesthesiology, cardiology, family medicine (division of community medicine and/or division of osteopathic manipulative medicine), dermatology, gastroenterology, hematology/oncology, infectious disease, nephrology, neurology, neuro-surgery, nuclear medicine/endocrinology/metabolism, obstetrics/gynecology, ophthalmology, orthopedic surgery, otorhinolaryngology, pathology, rheumatology/immunology, cardiovascular/thoracic surgery, and urology.

Students can pursue clinical rotations at other osteopathic, allopathic, or military institutions; however, they must plan their elective program with the Office of Clinical Education in order to obtain academic credit for these rotations. Elective rotations can also be taken in any of the required core rotation disciplines. Only two electives can be taken in one discipline. Determination of what rotations qualify as being in the same discipline is decided by the Department of Clinical Education.

DEPARTMENT DESCRIPTIONS

Department of Anatomy
Through a comprehensive course of study in Gross Anatomy, Histology, Neuroscience, and Embryology, 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 the dissection of the cadaver under the guidance of the anatomy faculty. Dissection is supplemented by the study of models, osteologic specimens, radiographs, and transverse sections. In Histology, students apply the principles presented in lecture to the microscopic identification of normal human cells and tissues, while the Neuroscience course uses case studies to apply and reinforce basic concepts.

The Department offers several elective courses, including Advanced Gross Dissection and Research. The Research elective gives students the opportunity to participate in ongoing research projects with the Anatomy faculty. Members of the Anatomy Department are actively engaged in the study of human and lower vertebrate morphology. Areas of research interest include the eye, evolution and function of the musculoskeletal system, biological shape variation in evolution, evolution of the mammalian middle ear and mandible, inflammatory response, cortical control of autonomic functions, and use of computer instruction in the teaching of Anatomy.

Department of Anesthesiology
Anesthesiology provides a required two-week clinical anesthesiology rotation that is incorporated in the surgical clerkship. The rotation is an introduction to clinical operating room anesthesiology with special emphasis on airway management in the unconscious patient. Students are given strictly supervised, hands-on training in airway management to the extent possible based on the availability of clinical material.

Introduction to this rotation begins with students viewing a videotape that states the objectives of the rotation and introduces commonly used anesthesia equipment, including monitors, anesthesia machines, ventilators, and infusion pumps. A manual of selected readings is included in the introductory presentation.

The rotation also includes lectures on preanesthetic patient examination and treatment. Other lectures on appropriate topics are presented in an informal format. Additionally, students are encouraged to attend departmental educational seminars, case presentations, and journal club sessions held each Wednesday morning.

Department of Behavioral Medicine
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 Medicine curriculum provides the coursework and clerkship 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**

First-year medical students complete a two-quarter sequence of three required courses in Medical Biochemistry, the educational goals of which are to understand the major biochemical concepts of the cell, tissue, and organ function in health and disease. These goals are achieved through lecture sessions, simulated patients, small group case studies, and readings in the biomedical literature. A problem-based format is used for small group clinical case studies. In addition to the required 1500-1502 courses, the Biochemistry faculty teaches four elective courses: Clinical Nutrition, Clinical Enzymology, Research Design, and Nutrient and Drug Biomembrane Transport. Faculty members also accept students into a research elective program.

**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 College’s emergency medicine program provides medical students with didactic training in emergency medicine. At CCOM, emergency medicine is taught in the emergency departments of affiliate hospitals under the supervision of attending physicians and emergency medicine residents. Students are exposed to a full range of clinical pathology presenting to both inner city and suburban emergency departments. A formal didactic program complements their clinical exposure.

The members of the Department of Emergency Medicine are all specialists in the field of emergency medicine. They are engaged in both the clinical practice of emergency medicine as well as in clinical research in the field. Medical students may assist in clinical research projects within the Department of Emergency Medicine.

**Department of Family Medicine**

Family medicine practitioners 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. Thus, all medical students must have extensive experiences in this area. 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.

Family Medicine provides staff who act as models for group practices where osteopathic medical students gain clinical experience. As externs in CCOM affiliate facilities, medical students are responsible for taking a patient’s history and conducting a physical. They learn how to provide the holistic health care for patients coming to these facilities. Students also work in community outreach programs. Medical students have the opportunity to be members of a health care team. These programs include health screening, school health programs, and health promotion and illness prevention programs for community groups and organizations.

Members of the Department of Family Medicine are actively engaged in clinical studies. Students can assist the clinicians in teaching patients through these studies. 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. The course of study includes osteopathic history, philosophy, and principles, the somatic components of disease, examination, treatment, and problem-solving skills.

**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 sciences into their practice of clinical medicine. The medical students can gain significant ambulatory experience in the 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 specialists, subspecialists, or general internists, are engaged in clinical as well as basic research. The sections of cardiology, gastroenterology, and rheumatology are actively involved in research and investigative pharmaceutical studies. The medical students may assist in these projects by monitoring the patient’s progress and helping to analyze the data collected for these studies.

**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 three-quarter sequence in medical immunology (1 quarter) followed by courses in the fundamental principles of Medical Microbiology (2 quarters). 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 an understanding of the role of the immune system in maintenance of a healthy host. These goals are achieved through lectures, self-studies and problem-based interactive clinical case studies. The material presented in Medical Microbiology lecture is reinforced in the mandatory laboratory sessions that help students develop the skills they will find necessary to understand but not master the most commonly used microbiologic techniques ordered by a physician. The laboratory also allows students to become familiar with the general operations of a clinical microbiology laboratory. The material in Medical Immunology is reinforced by mandatory didactic clinical correlations and case presentations which are intended to be teacher-student interactive learning sessions.

In addition to the required courses, the Microbiology and Immunology faculty offer electives on request on the impact of social and geographic factors on infectious diseases and on agents of biological and chemical warfare and terrorism. Faculty also accept students into a research elective program. Areas of ongoing research include molecular and immunologic aspects of host-parasite interaction; immunopathological responses to infection, autoimmune diseases (rheumatoid arthritis and autoimmune uveitis); microbial adaptive mechanisms; host factors related to the induction of antibiotic resistance; and, sexually transmitted diseases.

**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, the daily problems of office gynecology, and the indications and options for appropriate surgical care of the female patient challenge all 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.

**Section of Ophthalmology**
The Department provides seniors with a practical introduction to diseases of the eye, a review of the anatomy and physiology of the eye, and a review of surgical procedures.

**Section of Orthopedic Surgery**
Orthopedic surgeons diagnose and treat diseases and injuries of the musculoskeletal system. Interest in this specialty is a natural and complementary extension of the learning experience of the osteopathic physician. The department consists of both certified and board-eligible orthopedic specialists. Some of these specialists have completed subspecialty-training programs that have enhanced their skills and enriched the program. During both basic science and clinical rotations, these specialists conduct lectures on topics relating to musculoskeletal disease and injury. By doing so, they provide students with a progressive appreciation for, knowledge of, and essential skills in the orthopedic practice necessary to the osteopathic physician.

**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 uniqueness. A continuum of osteopathic training is essential, and the Department will work to facilitate this continuum of training. 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**
By focusing on the human body as an integrated system, the study of Pathology provides students with an understanding of the pathophysiologic mechanisms of disease while familiarizing them with the vast spectrum of human disease processes encountered through an organ system approach. It initiates students to critical clinical analysis by demonstrating the relationships between basic scientific principles and the practice of clinical medicine and emphasizing the integration of these principles into the study of human disease. This approach provides students with a complete overview of disease processes in relation to their genetic, pathophysiologic, anatomic, histologic, and cellular alterations. Students will develop skills necessary to interpret and incorporate laboratory data in diagnosing and treating the spectrum of illness. The relationships of the mechanisms and characteristics of human disease to osteopathic principles and practice are emphasized.

**Section of Pediatrics**
Pediatric patients present opportunities, challenges, and rewards that are unique in medicine. As a student it is essential to be exposed to growth and development from newborn to adulthood, the medical management of the Pediatric patient, preventive care and psychosocial issues of childhood. The management of pediatric patients requires special thought processes, skills, and techniques that must be mastered by all medical students. Pediatrics is a six-week rotation in the junior year.
Department of Pharmacology
The science of pharmacology deals with the properties and effects of drugs and chemical compounds on living systems. Medical pharmacology focuses on the mechanisms of action, toxicities, and therapeutic uses of biologically active substances in humans. Physicians must be able to utilize basic knowledge of pharmacology to treat and prevent disease in their patients. At CCOM, medical students are shown the correlation between pharmacology and related medical sciences, taught how to interpret the actions and uses of major classes of drugs, and instructed in the applications of pharmacodynamics to therapeutics.

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 to medical, pharmacy, and health sciences students 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 responses that occur in response to perturbation of homeostasis 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 Summer Research Fellowship Program. Current research interests of the faculty include a variety of areas associated with cardiovascular physiology, such as cardiac electrophysiology, autonomic and enteric nervous system control and central control of cardiorespiratory function.

Section of Radiology
Imaging techniques are becoming increasingly important in the diagnosis of many patient problems. This course is designed to increase the medical students’ understanding of the basic elements of radiology so that as physicians they can effectively utilize the current technologies as well as the consultant services offered by radiologists. After completion of this course, the students possess an understanding of the basic physics of radiation and are able to both accurately interpret common radiographic findings and demonstrate an understanding of indications of the various radiologic studies.

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. Family practice physicians should also be able to perform ambulatory procedures in an office setting as well as understand all aspects of wound management.

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 didactic and clinical training in the surgical arts. The members of the department provide comprehensive, osteopathic surgical care for the patients in CCOM’s affiliated clinical facilities. The members of the department serve not only as mentors for all medical students but also seek to identify those students who have the ability and interest to become osteopathic surgeons in order to provide them with additional personal and professional guidance and assistance.

COURSE DESCRIPTIONS
Prerequisites for courses may be established by the department that administers the course. Prerequisites are recommended to the Curriculum Committee for approval and are listed within the course description in the catalog.

On a case-by-case basis, prerequisites may be waived upon approval of the department chair of the department that delivers the course.

ANAT 1501 Human Gross Anatomy/Embryology
This course provides the gross anatomical foundation for other courses in basic sciences such as Physiology and Pathology, as well as clinical courses like Osteopathic Manipulative Medicine and Introduction to Clinical Medicine. The course emphasizes the embryologic development of the human body, the relationship between body structure and function and the importance of a thorough knowledge of human gross anatomy to the practice of medicine. The human body is studied following a regional approach involving lecture and cadaveric dissection in the gross anatomy laboratory. This course is taught during the Fall and Winter quarters with a single grade given at the completion of the course.

13 credits

ANAT 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.

4 credits
ANAT 1521 Neuroscience
This course uses a multidisciplinary approach to provide students with the fundamentals of the nervous system. Integrated lectures are given by the departments of Anatomy, Biochemistry, Microbiology, Neurology, Pathology, Pharmacology, and Physiology.
8 credits

BIOC 1500 Human Nutrition, Metabolism and Health Care through the Life Cycle
Course content features general concepts of fuel metabolism, bioenergetics and nutrition as they apply to evidence-based medical care through the life cycle. A simulated patient helps to illustrate major concepts in the course. Students work in teams to apply their knowledge of medical biochemistry and statistics to the solution of clinical problems. Team discussions also help students begin to develop relationship-centered as well as evidence-based practices even at this early stage of their medical training.
2 credits

BIOC 1501 Human Clinical Chemistry and Metabolism
Lecture sessions concern clinical chemistry, human metabolism and biochemical abnormalities of simulated patients. Clinical correlations are featured in all lecture sessions and are applied in workshops that involve weekly small group discussions of related cases.
4 credits

BIOC 1502 Human Cell and Molecular Biology, Genetics and Nutrition
Lecture sessions highlight human nutrition, cell and molecular biology and medical genetics. Simulated patients help to illustrate major concepts in lecture sessions. Clinical correlations are featured in all lecture sessions and are applied in workshops that involve weekly small group discussions of related cases.
5 credits

BIOC 1670 Clinical Nutrition
Nutritional considerations are important in the prevention and management of many disease processes, and to the determination of overall health. In this elective, students will apply and extend the basic nutrition knowledge learned in BIOC 1500, 1501 and 1502. Students will explore recent advances in clinically relevant nutrition through a variety of process that may include case-based learning, online modules, and critical evaluation of research reports selected from the peer-reviewed biomedical literature. The precise format of the course varies from year to year.
1 credit

BIOC 1671 Nutrient and Drug Biomembrane Transport
Students will explore and discover in this course precisely how drugs administered via the GI tract reach their target(s). Such drugs may need to traverse numerous intervening biomembranes by various mechanisms including uniport, symport, antiport, primary active transport and mechanisms that do not appear to involve transport proteins. Moreover, delivery to targets may be influenced by drug metabolism and elimination and by other drugs and nutrients, and students will explore these effects in their final reports.
1 credit

BIOC 1672 Research Design
Students learn by designing their own medical research projects and receiving critiques on their efforts. They receive feedback on their proposals from the instructor during small group meetings, two student reviewers selected by the students, an additional faculty reviewer identified by the students, and the entire class and the instructor during the oral report on the project they design.
2 credits

CORE 1399 Health Care Issues
Changes in our health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The core course has been developed as a university-wide effort to provide an orientation and education to all first-year students on general topics related to health care. Lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA), the concept of biomedical research, and provide a view of the health-care team from the patient perspective. Additionally, the various roles in the health-care professions will be introduced to the students (osteopathic physicians, physician assistants, pharmacists, physical therapists, occupational therapists, clinical psychologists) using practitioner-patient demonstrations utilizing a surrogate patient.
1 credit

ECRO 1800 Elective Clerkship in Anesthesiology
The elective clerkship offers insight into the broad specialty of anesthesiology and provides for additional hands-on experience in the practical aspects of anesthesiology-related patient care, cannulation of peripheral veins, bag and mask ventilation of unconscious patients, arterial cannulation, the monitoring of patients, and evaluation of postanesthetic complications. Electives are available for two- or four-week durations on an individual basis.
2-4 credits
ECRO 1800 Elective Clerkship in Cardiology
This rotation provides the medical students with an intensive academic and clinical experience in the diagnosis and management of cardiovascular disease. In addition to participating in patient treatment in the Intensive Coronary Care Units, consultations concerning cardiovascular and peripheral vascular disease, and reading and interpreting electrocardiograms for review with cardiologists, the medical students examine the entire spectrum of invasive and noninvasive diagnostic modalities. Medical students are expected to attend and participate in cardiology and electrocardiography conferences and teaching rounds. Medical students are also encouraged to participate in ongoing research projects conducted by the cardiologists.
4 credits

ECRO 1800 Elective Clerkship in Endocrinology/Metabolism and Nuclear Medicine
This rotation is divided into two parts: endocrinology/metabolism and nuclear medicine. In endocrinology/metabolism, the medical students explore common as well as esoteric endocrinopathies. After exploring how to utilize properly a history and physical examination, the medical students should be able to arrive at a tentative diagnosis and outline a diagnostic approach to confirm this diagnosis. The medical students are expected to participate in teaching rounds and consultations. The portion of the rotation in nuclear medicine is designed to familiarize the medical students with the diagnostic modalities available in vivo and in vitro nuclear medicine. The medical students examine therapeutic uses of radioisotopes and, through their participation in the daily interpretation of test results, consultations, and seminars, broaden their experience in nuclear medicine.
4 credits

ECRO 1800 Elective Clerkship in Gastroenterology
This rotation offers the medical students a variety of academic and clinical experiences in gastrointestinal and hepatic diseases. The medical students learn the entire spectrum of endoscopic and gastrointestinal functional studies as well as the detailed study of hepatology. In this rotation, emphasis is placed on histopathology and clinical correlations. The medical students are expected to attend teaching rounds with the senior staff, the weekly problem case conferences, and the weekly journal club.
4 credits

ECRO 1800 Elective Clerkship in Hematology/Oncology
This rotation acquaints the medical students with the diagnosis and management of hematologic and oncologic problems. The medical students learn common clinical laboratory tests, bone marrow aspiration and biopsy, and the interpretation of these tests as well as the proper use of chemotherapeutic agents in malignant hematologic disorders. The medical students are expected to participate in teaching rounds and the weekly problem case conferences.
4 credits

ECRO 1800 Elective Clerkship in Infectious Diseases
This rotation provides the medical students with a rational approach to diagnosing and treating common and unusual infectious disease problems. The medical students learn to interpret microbiologic laboratory data including Gram stains, in vitro and in vivo sensitivity tests, and cultures. Lectures help the medical students review host-defense mechanisms and antibiotics. The medical students also have an opportunity to participate in clinical investigations of new antibiotics.
4 credits

ECRO 1800 Elective Clerkship in Neonatal Medicine
This rotation offers students a basic as well as an intensive experience and exposure to diseases that are peculiar to both term and low–birth weight infants. Lectures and A-V presentations, geared to the development and assessment of diseases of the newborn, are presented. Students will be given demonstrations on gestational assessment, physiologic variances in normal newborn patterns, and techniques for interfacing with the maternal organism. The students are introduced to the life support concepts and equipment used in the Neonatal Intensive Care Unit. Students are encouraged to attend pediatric morbidity/mortality conferences.
4 credits

ECRO 1800 Elective Clerkship in Nephrology
This rotation provides the medical student with an intensive exposure to areas of clinical nephrology such as acid-base abnormalities, hypertensive disease, and various metabolic and endocrine disorders. The students have an opportunity to observe and participate in the management of various forms of renal dysfunction and failure through the programs conducted by the acute and chronic hemodialysis unit, the chronic peritoneal dialysis unit, and the consultation services provided by members of the department. In this rotation, emphasis is placed on how to interpret urinary sediment and the evaluation of a patient’s renal function. In addition to mastering the regular reading assignments, the students are expected to participate in conferences and teaching rounds.
4 credits

ECRO 1800 Elective Clerkship in Neurology
This rotation is designed to broaden the medical students’ knowledge of general and specific neurologic problems. The medical students learn various methods (EMG, EEG, and
CT scanning) used to discover and diagnose neurologic pathologies. Also, the medical students are expected to participate in the comprehensive neurologic examinations conducted during teaching rounds and to participate in consultations. The medical students are expected to attend conferences and lectures in neurology.

4 credits

**ECRO 1800 Elective Clerkship in Ophthalmology**
This rotation introduces students to the diseases of the eye. Students are expected to master a series of competencies, which includes learning the anatomy, physiology, embryology and pathophysiology of the eye; ophthalmic pharmacology; the diagnosis and treatment of diseases of the eye; the nuances of pre- and postoperative eye care; and the application of osteopathic manipulative medicine to the eye. Primarily, students learn the eye diseases commonly seen in family practice. Students planning to specialize in other areas, such as emergency medicine, maxillofacial surgery, or ophthalmology, must attend all didactic presentations. During the two-week rotation, the department presents eight didactic lectures. Additional lectures are scheduled throughout the general surgery rotation. When possible, students are also expected to participate in bimonthly neuro-ophthalmology conferences, journal club, and special lectures. On the last rotation day, the Department gives a written test and evaluation of the program. All CCOM students receive instruction on the principles of examination and therapy for common ophthalmologic diseases during their Introduction to Clinical Medicine course.

4 credits

**ECRO 1800 Elective Clerkship in Osteopathic Manipulative Medicine**
Medical students may participate in a four-week elective in osteopathic medicine to increase their osteopathic knowledge and skill in the clinical arena.

4 credits

**ECRO 1800 Elective Clerkship in Pulmonary Medicine**
This rotation introduces the medical students to the broad field of respiratory problems. The medical students learn to interpret chest x-rays, pulmonary function studies, arterial blood gas studies, and the proper use of respiratory therapy modalities. The medical students are expected to attend teaching rounds, consultations, lectures, and seminars in pulmonary medicine.

4 credits

**ECRO 1800 Elective Clerkship in Radiology**
Elective courses in radiology are available during the second, third, and fourth years of medical school. The elective courses are geared toward enhancing the participants’ ability to understand and utilize the technologies as appropriate to the level of medical education. During the first two years, the course will emphasize the imaging modalities available and basic radiologic physics. Participants in the senior clerkship will be expected to identify and apply basic radiologic physics, describe and apply the practical aspects of radiology, and correctly use the fundamental diagnostic signs in radiology. They will also, in a clinical setting, display their mastery of image analysis by selecting the views that are most appropriate for a particular examination, distinguish between technically satisfactory and unsatisfactory examinations, formulate valid conclusions from analysis of radiographs, and identify normal and abnormal anatomic structures on a radiograph.

4 credits

**ECRO 1800 Elective Clerkship in Rheumatology/Immunology**
This rotation is designed to expose the medical students to the broad field of rheumatologic disorders, connective tissue disease, and clinical immunology. In addition to examining patients once they are admitted, the students are expected to develop a basic working knowledge of the various procedures utilized in the evaluation and monitoring of patients with rheumatic disorders (and master the application and function of these procedures in ongoing patient care).

4 credits

**EMED 1805 Emergency Medicine Rotation**
In the emergency departments of CCOM’s affiliate hospitals, the medical students, under the direction of a member of the department, assist in providing emergency care. The medical students make initial assessments, take histories and 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 lab and weekly lectures are part of the rotation.

4 credits

**FMED 1515, 1516, 1517 Introduction to Clinical Medicine (ICM)**
This course is taught in the fall, winter, and spring quarters of the first year. Students receive grades each quarter.

Introduction to Clinical Medicine is designed to acquaint the medical students with the basic skills and basic clinical knowledge associated with the practice of medicine, enabling them to synthesize the knowledge gained in the basic science courses with the material presented in ICM. As part of their required activities, students participate in a simulated patient program where they learn to perform a physical examination with normal findings emphasized. As part of the ICM class, students have required exposure to actual patients.

2 credits - FMED 1515
2 credits - FMED 1516
2 credits - FMED 1517
The Practice of Medicine builds upon and reinforces content taught in ICM. This course enhances the student’s critical-thinking and problem-solving abilities by developing vital communication skills and medical informatics. The Practice of Medicine integrates the clinical presentation, pathophysiology and therapeutic options for common disease processes. An appreciation of “focused physical examinations” will be fostered through the refinement of bedside clinical skills acquired in ICM. The curriculum focuses on learner-centered activities, progressively relying on collaborative, small group work. Activities include role-play, the use of standardized patients, and the application of newly acquired knowledge and skills to “real world” scenarios. Small group sessions also include case-based learning (clinical vignettes in which students find answers to directed questions) and problem-based learning (clinical vignettes in which students identify and isolate key facts, create a hypothesis, and provide solutions). Practice of Medicine also includes required exposure to actual patients.

Small group sessions also include case-based learning (clinical vignettes in which students find answers to directed questions) and problem-based learning (clinical vignettes in which students identify and isolate key facts, create a hypothesis, and provide solutions). Practice of Medicine also includes required exposure to actual patients.

FMED 1702 Family Medicine Rotation/Community Health
Medical students complete a 12-week rotation during their junior year. Carefully supervised, this experience provides students with the opportunity to practice non–hospital-based outpatient medicine as well as inpatient medicine. The goal of the program is to ensure that the student physician is exposed to the more common disorders encountered in an ambulatory care setting. Students are required to be able, under the supervision of a 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.

12 credits

FMED 1743 Clinical Integration Seminar (CIS)
This 4-week course provides a series of educational lectures, workshops and performance experiences to the MS IV class. The primary purposes of this program are to augment the clerkship experience, enhance learning and assist in the preparation for postdoctoral training. CIS provides a broad range of topics to assist students as they plan for upcoming internships / residencies. Students are required to articulate diagnosis and management of a wide variety of complex medical issues, outline the major medicolegal issues faced by physicians in practice, understand the residency selection process and successfully perform an Objective Structured Clinical Examination (OSCE).

3 credits

FMED 1802 Family Medicine
This experience provides the medical students with one four-week rotation that enables them to continue the process of developing skills in an ambulatory care setting. The intention is to place the senior medical student in a somewhat more intense ambulatory care setting with a patient population that includes patients with more advanced pathologies. The requirement of heightened diagnostic skill as well as increased ability to deal with more serious and complex medical issues result in further development of the student’s ability in history taking and physical diagnosis and the development of more complex differential diagnoses and treatment plans. Students may participate in the community medicine experience, a community-based family medicine–run outreach program that involves care of the homeless, family planning, adolescent medicine, and ambulatory geriatric care. Students may elect to participate in the Rural Preceptorship Program. This program is available to students who may be interested in either establishing a family medicine practice in a rural area or participating in primary health care without access to the technologically advanced services available in large urban medical communities. Students in this program complete a four-week rotation with a faculty member of the Family Medicine Department who is engaged in a private family medicine practice in downstate Illinois, Northern Indiana, or Wisconsin. Most of these sites offer housing and/or other support for medical students during the rural preceptorship experience.

4 credits

IMED 1501 History of Medicine
No physician would consider treating a patient without first obtaining a detailed history, yet too many physicians are unable to turn to historical precedents for guidance in their work because they are unaware of the history of their own profession. It is no accident that in the last 100 years the most influential and original thinkers in medicine also had a sense of history as well as an appreciation for the history of medicine. This course analyzes the development of the osteopathic medical profession and traces the evolution of medical concepts and beliefs. After exploring the practice of medicine in classic antiquity (including the Middle East, India, China, and Japan), the medical students study the beliefs and opinions of the great physicians who were responsible for the development of western medicine from its Greco-Roman origins through the rise of American Medicine in the 20th century. With this course as a basis, the medical students will be able, as physicians, to evaluate issues and trends in medicine. Additionally, they will be able to assess the ways in which changes in the practice of medicine affect other elements of society.

1 credit
IMED 1702 Internal Medicine Rotation I- IMED 1802 Internal Medicine Rotation II
In these rotations, medical students participate in daily teaching rounds and attend all teaching lectures and conferences. The medical students also conduct in-depth studies on assigned cases. The medical students are evaluated, in part, on their ability to collect and analyze data and solve problems.
8 credits - IMED 1702
8-12 credits - IMED 1802

MICR 0604 Elective: Agents of Biological and Chemical Warfare and Terrorism.
This is an interactive course with a significant aspect of self-study followed by group discussions on the self-study material. The topics include likely biological warfare pathogens and toxins and chemical agents as well as the medical and defensive response to their use and the impact of their use on healthcare providers, the healthcare systems and on society as a whole. The course is offered every other year on demand.
2 credits

MICR 1501 Immunology
This didactic course covers basic antigenic characteristics of microorganisms with special emphasis on: factors pertinent to clinical medicine; vaccination and immunotherapy; fundamental principles of immunology, lymphatic recirculation and lymphatic flow; the cells and cell products involved in host defense mechanisms, their origin, function, role in health, in infectious processes and in immunologic disorders; hypersensitivities, and deficiencies; basic strategies of host defense related to combating various categories of pathogens; and, methods of laboratory diagnosis using antigen and antibody-based tests. Each didactic lecture unit is followed by case presentations that highlight the important clinical aspects of the basic material covered for that unit.
3 credits

MICR 1601, 1602 Microbiology I and II
In this course, there is an introductory unit on basic classification, structure, metabolism and genetics of bacteria, viruses and fungi. The students are then presented information relative to control of microorganisms to include sterilization and disinfection, antibiotics, antifungals and antivirals followed by infectious disease epidemiology. For the remainder of the course, lectures and laboratories use the organ systems approach to examine the etiologic agents of infectious disease. Clinical correlations are featured for each organ system and are applied to the laboratory portion of the course.
5 credits - MICR 1601
5 credits - MICR 1602

OBGY 1702 Obstetrics and Gynecology Rotation
This rotation consists of a six-week block in the third year and is designed to provide students with a wide variety of clinical experiences. The rotation is accomplished in a wide variety of 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; 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; 4) ample one-on-one supervision by residents and attending physicians enhances each student’s learning process; 5) formal lecture series covering all major topics in the specialty; and 6) Black board distance learning case studies and quizzes provides consistent training and testing of students through the six week rotation regardless of site selected. An orientation session and final exam are integral to the organization and evaluation process in the OB/Gyne rotation.
6 credits

OMED 1501, 1502, 1503 Osteopathic Manipulative Medicine
Osteopathic Manipulative Medicine is taught in the fall, winter, and spring quarters. Instruction consists of one hour of lecture plus three hours of laboratory each week. Laboratory sessions are designed to reinforce material presented in lectures and to identify and develop the practical skills needed to diagnose and treat patients. Laboratory periods provide an excellent opportunity for medical students to ask questions and to practice diagnosis and treatment techniques on a variety of body types. Closed circuit television is used to enhance the effectiveness of demonstrations.
Instruction begins with an orientation to the osteopathic profession (including the history and philosophy of osteopathic medicine) and an examination of the distinctive contribution of the osteopathic profession to the delivery of health care. Normal anatomy and physiology are also emphasized. Early laboratory periods emphasize palpation, identification of anatomic landmarks, evaluation of motion, and evaluation of soft tissues. The course then progresses into the pathophysiology of the spine with a description of the structural-functional disturbances that occur in the spine. The skills of articulation, range of motion procedures, Muscle Energy, cranial osteopathy, Counterstrain, Myofascial Release, and high-velocity thrust (HVLA) manipulative techniques are taught. Neurobiologic mechanisms in manipulative treatment and their clinical manifestations are also presented. At the conclusion of the first year, medical students are expected to have mastered palpation, diagnosis, and simple basic manipulative procedures. Written and
practical examinations are used to measure each students’ mastery of the abovementioned skills.

2.5 credits - OMED 1501
2.5 credits - OMED 1502
2.5 credits - OMED 1503

OMED 1604, 1605, 1606 Osteopathic Manipulative Medicine

Osteopathic Manipulative Medicine is taught in the fall, winter, and spring quarters. To progress to the 1600 series of OMM, each student must. Instruction in the fall and winter quarters consists of one hour of lecture plus three hours of laboratory each week. The second year course is an expansion of the first year, with a dominant focus on organ systems as contrasted to anatomic regions. A complete spectrum of direct and indirect osteopathic manipulative techniques is taught. The spring quarter returns to examination and treatment of anatomic regions, and concludes with a “Find It, Fix It” practical examination in which the student must demonstrate competence in diagnosis and treatment. Two comprehensive written examinations covering the first two years are given during the spring quarter. Prerequisites: Satisfactory completion of OMED 1501, 1502, 1503 and Anatomy 1501, 1502, 1521.

2 credits OMED 1604
2 credits OMED 1605
2 credits OMED 1606

OMED 1670 Elective: Osteopathic Sports Medicine

This course will provide a foundation of knowledge in sports medicine covering diagnosis and treatment of common athletic injuries. The course emphasizes the use of osteopathic diagnostic and treatment skills in the management of sports injuries.

2 credits
Prerequisites: Satisfactory completion of OMED 1501,1502

OMED 1671 Elective: Preventive Medicine I

This elective course is designed to expose students to a variety of preventive medicine issues. A series of lectures are given by clinical faculty as well as others from outside agencies. After this course, the students will be able to identify the issues and needs related to health promotion and disease prevention; discuss the psychologic factors that may affect patient health and the relationship of a holistic approach by the physician; and identify resources available within the community and the interaction of various community support systems.

2 credits

OMED 1672 Electives: Osteopathic Clinical Research I and II

This independent study elective will allow the student to identify potential clinician-researchers; develop research questions in osteopathic health care; convert a question into a research protocol and plan; develop the resources for implementing the plan; and conduct a case study or small pilot study.

1 credit
Prerequisite: Instructor approval

OMED 1673 Elective: Osteopathic Manipulative Medicine

This elective will allow the student to work directly with OMM faculty members and first-year students in the development of psychomotor skills and problem solving skills in the treatment of the musculoskeletal component of common patient problems. The second-year student will work as a teaching assistant during first-year OMM laboratory time.

2 credits
Prerequisites: Satisfactory completion of OMED 1501, 1502, and 1503, and no schedule conflicts

OMED 1677 Elective: Advanced Studies in Osteopathic Manipulative Medicine

This elective will combine cognitive data, psychomotor skills, and problem solving skills in the evaluation and treatment of the musculoskeletal component of common patient problems. The problems will be studied in depth at an advanced level. All forms of manipulative treatment will be used.

2 credits
Prerequisites: Satisfactory completion of OMED 1501, 1502, 1503

OMED 1801 Osteopathic Manipulative Medicine Rotation

This is a core rotation required of all MS-IV students. Each student will spend one four-week rotation in the office of an osteopathic physician who uses an extensive amount of OMT in his or her 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 on the OMM skills lab on the Downers Grove campus. On the final day of the rotation, a written examination and practical “Find it, Fix it” examination will be given. The student will gain practical experience in using osteopathic principles and practices in the clinical setting. Prerequisites: Satisfactory completion of OMED 1501, 1502, and 1503, and no schedule conflicts.

4 credits

PATH 1601 Pathology I

The first half of the 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 for the processes of cellular injury and adaptation, inflammation and repair, neoplasia, hemodynamic disorders and basic laboratory values and analysis. This section of the course stresses the cellular,
genetic, pathophysiologic and molecular alterations which underlie all disease processes and emphasizes their dynamic nature. The second half of the course introduces students to the study of specific disease processes utilizing an organ systems approach.

5 credits

PATH 1602, 1603 Pathology II and III
These courses are a continuum of the organ system approach to the study of human disease introduced in Pathology 1601. The causes and pathophysiologic mechanisms of disease pertaining to specific organ systems are emphasized along with their anatomic, histologic and physiologic alterations. The implications of these disease processes to both the patient and physician are examined. The relationships between specific organ system diseases and their systemic implications are also emphasized.
6 credits - PATH 1602
5 credits - PATH 1603

PEDI 1702 Pediatrics Rotation
This 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, and didactic sessions. Attendance at all clinical and educational opportunities is mandatory.
6 credits

PHAR 1601, 1602, 1603 Pharmacology I, II and III
This sequence of courses begins with coverage of the general principles of pharmacology; the kinetics of drug absorption, distribution, metabolism, and elimination; mechanisms of drug actions; receptor theory and dose response relationships. The remainder of the sequence of courses includes coverage of the pharmacologic actions and clinical uses 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 diseases and neoplastic diseases, drugs acting on blood and blood-forming organs, hormones and hormone antagonists, principles of toxicology, vitamins, and drugs causing birth defects. Throughout the instructional program emphasis is placed on problem solving, formulating hypotheses, making therapeutic decisions, and the application of principles of osteopathic philosophy and evidence-based medicine.
4 credits - PHAR 1601
4 credits - PHAR 1602
2 credits - PHAR 1603

PHAR 1672 Elective: Pharmacology Research
The various Pharmacology faculty maintain active research programs in several areas including inflammatory processes, neurobiology, cardiovascular disease, cancer research, toxicology, and biochemical pharmacology. Medical students with a strong interest in pharmacology are encouraged to contact the department chairman or individual faculty about research opportunities within the department.
1-2 credits

PHAR 1673 Elective: Medical Spanish
The Medical Spanish elective is designed to prepare preclinical second-year medical students to interact with Spanish-speaking patients. Since the Spanish-speaking community has become the largest minority in Chicago and other large U.S. cities, health professionals must frequently deal with these patients, and, therefore, it is essential they have a good understanding of the nature and scope of the Spanish language. Students will be taught a broad enough lexicon so that they will feel confident in their efforts to diagnose medical problems and converse successfully with the patient regarding treatment and prognosis. This course has been specifically designed to aid the medical student in communicating with the Spanish-speaking patient as well as understanding cultural attitudes that may impact the required medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral simulations.
2 credits

PHAR 1675 Elective: Pharmacologic Aspects of Drug Abuse
Drug abuse and its associated medical and social problems have reached alarming proportions. For this reason, physicians and other health care professionals need to appreciate the various factors involved in the nonmedical use of drugs. This elective is designed to provide the student with an in-depth understanding of the pharmacology of the common drugs of abuse, including alcohol, cocaine, stimulants, hallucinogens, and opioids. Particular emphasis is given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of drugs and to the development of drug tolerance and dependence. Current theories regarding the physiologic basis of drug-seeking behavior and the development of drug dependence are presented. In addition, various social, legal, and ethical aspects of the drug abuse problem are considered.
2 credits

PHAR1800 Elective: Cardiovascular Pharmacology
Cardiovascular disease is a national health problem of major consequence and its treatment is one of the principle problems facing modern medicine. This elective is designed to familiarize the student with the principle cardiovascular
diseases, such as coronary artery disease, cardiac arrhythmias, heart failure, and hypertension, and to devise therapeutic strategies based on the appropriate use of pharmacologic agents.

2 credits

**PHYS 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 specific case studies.

5 credits

**PHYS 1502 Physiology II**
This course is a sequel to Physiology 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 respiration, renal and gastrointestinal organ systems that maintain body homeostasis through fluid, electrolyte 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 pertinent clinical case studies.

5 credits

**PHYS 1654 Elective: Obesity: Epidemiology, Clinical Assessment, Related Medical Conditions and Treatment**
The purpose of this elective is to introduce medical students to the medical consequences of obesity. The students will be introduced to the epidemiology of obesity, measurement of body composition, physiological regulation of satiety as well as selected pathophysiological conditions associated with obesity. Dietary, pharmacological and surgical approaches used to treat obesity will also be discussed.

2 credits

**PHYS 1670 Elective: MS II Teaching Elective**
The motivation for this course is based on the premise that most, if not all clinicians, exercise a dual role as clinician and teacher, whether teaching in the informal small groups of daily rounds or the more formal structured small group setting of an academic environment. It is expected that this elective will introduce the medical student to teaching techniques employed in small groups that they can then utilize in the clinical setting.

A major objective of this elective is to develop teaching skills required to explain physiological and pathophysiological mechanisms in a clear, logical manner. The elective involves facilitating a small interactive group that is part of a Physiology course for health sciences students.

2 credits

**PSYC 1501 Psychiatry I and II**
This module presents the philosophical foundations of psychiatry. Although various models of mind are presented, the biopsychosocial is the one that most closely approximates the holistic concept. However, the ideas of leading thinkers from various disciplines are presented to demonstrate the diversity of opinions that influence our psychiatric thinking.

2 credits

**PSYC 1503 Psychiatry III**
This module introduces psychopathology with descriptive, dynamic, and behavioral analyses of typical psychiatric syndromes. Emphasis is on etiology, diagnosis, and treatment. The use of the DSM-IV-TR as the major diagnostic reference is presented.

2 credits

**PSYC 1604 Psychiatry IV**
1604 Psychiatry IV Major issues and problems that patients will confront, including eating, sexual, sleeping disorders, as well as issues involving death, dying, grief, suicide, homicide, and forensic psychiatry, are presented at the beginning of the second year of study. Laboratory testing and imaging are also discussed.

1.2 credits

**PSYC 1605 Psychiatry V**
1605 Psychiatry V This module focuses on various types of therapies: individual, couple, family, group, pharmacologic, and electroconvulsive.

2 credits

**SURG 1702, 1802 Surgery Rotation I and II**
The rotation in surgery is divided into three parts: hospital-based care, ambulatory surgery, and clinical care. In this clerkship, the medical students participate in general surgery, trauma surgery, and subspecialty surgery such as ophthalmology, otolaryngology, orthopedics, urological surgery, cardiovascular surgery, plastic and reconstructive surgery, neurosurgery, and anesthesiology. The hospital-based surgical experiences occur at CCOM’s affiliated hospitals and clinical sites. In the hospitals, the medical students take histories, give physicals, participate in surgery,
and make postsurgical rounds. In the ambulatory surgical experiences, the medical students are assigned to the affiliated ambulatory care clinics where they see patients preoperatively and provide postoperative care that includes changing dressings and removing sutures. In addition, students are placed with subspecialty preceptors to work with them in both clinical and hospital settings. Throughout the 16 weeks of this rotation, students attend an extensive lecture series and programming provided by the department, as well as participate with the surgeons in rounds and observe surgeons and residents as they consult with physicians from other departments.

8 credits - SURG 1702
4 credits - SURG 1802

MWU/MATRIX SYSTEM: AN OSTEOPATHIC POSTDOCTORAL TRAINING INSTITUTION (OPTI)

CCOM offers a continuity of osteopathic medical education from the first year of medical school to the final year of postgraduate training. Internship and residency programs cover the spectrum of medical specialties. As one of the nation’s largest postdoctoral programs dedicated to the osteopathic philosophy of medicine, CCOM’s curriculum is broad reaching in scope and encompasses a multifaceted approach to graduate medical education that focuses on primary care. With unique teaching opportunities at some of the finest health care facilities in the Midwest and in the country, CCOM’s affiliated hospitals consistently lead the nation in terms of cutting-edge technology, treatment, and care.

Postdoctoral programs include rotating internships; specialty track internships in Internal Medicine, Obstetrics/Gynecology; special emphasis tracks; residencies in all primary disciplines; and fellowship programs in many subspecialties. Programs follow the guidelines of and receive accreditation from the Bureau of Education of the American Osteopathic Association.

Interns rotate through the primary services: emergency medicine, family medicine, internal medicine, obstetrics/gynecology, surgery, and pediatrics, some of which may be completed at affiliated Chicagoland hospitals and medical centers.

Residency or fellowship training is offered in the following disciplines:
- Cardiology
- Critical Care
- Emergency Medicine
- Emergency Medicine/Family Medicine
- Emergency Medicine/Internal Medicine
- Family Medicine
- Family Medicine/Osteopathic Manipulative Medicine
- Gastroenterology
- General Surgery
- General Vascular Surgery
- Geriatrics
- Internal Medicine
- Interventional Cardiology
- Neurosurgery
- Obstetrics/Gynecology
- Ophthalmology
- Orthopedic Surgery
- Osteopathic Manipulative Medicine
- Radiology
- Rheumatology
- Urological Surgery

STUDENT ACADEMIC POLICIES

Academic Policies
The following academic policies apply to all CCOM 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 Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Academic Review & Progression
Two faculty committees of the medical school review the academic performance of students: the Preclinical Promotions Committee for the preclinical years and the Clinical Promotions Committee for the clinical years.

Preclinical Promotions Committee
The committee is charged with maintaining standards of excellence in the preclinical academic courses. At a minimum, it meets at the end of each academic quarter. The committee assesses the progress of each student at the end of the academic year, with special attention to students with an academic failure, an incomplete, or an in-progress grade. Students who attain satisfactory academic and professional progress are promoted to the next academic year, provided all tuition and fees have been paid.

Students who accumulate 3 or more failures in an academic year, students with 2 or more failures in a single academic quarter, and students in the extended-study program (ESP) who accumulate 1 or more failures in an academic year are required to meet with the Preclinical Promotions Committee (PCP). Notification of the date, time, and place of the committee meeting is sent to students by priority email or telephone at least 48 hours in advance. Decisions of the committee are mailed to students. The right to appeal a decision for dismissal or deceleration exists and is described elsewhere in this catalog. Appeals must be filed with the Dean within three working days following official notification of the committee’s decision.
### Preclinical Promotions Committee Guidelines*

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<td>1 Failure</td>
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<td>2 Failures (different quarters)</td>
<td>Retake Courses</td>
<td>Warning or Probation</td>
<td>Summer or Next Academic Year</td>
<td>Fail-ESP Pass-Promote</td>
</tr>
<tr>
<td>2 Failures (same quarter)</td>
<td>ESP or Suspension</td>
<td>Probation</td>
<td>Summer or Next Academic Year</td>
<td>Fail - ESP or Dismiss Pass - Promote</td>
</tr>
<tr>
<td>3 Failures (over more than one academic year)</td>
<td>ESP or Suspension</td>
<td>Probation</td>
<td>Next Academic Year</td>
<td>Fail - Dismiss Pass - Promote</td>
</tr>
<tr>
<td>3 Failures (same academic year) or 4 Cumulative Failures</td>
<td>Recommend Dismissal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*May be modified by the Preclinical Promotions Committee for reasons of additional consideration. Course repeat schedule at the discretion of the Preclinical Promotions Committee. Failures in elective courses carry the same weighting as failures in core curriculum courses, such as anatomy, biochemistry, etc. W/F may be considered as a course failure by the Preclinical Promotions Committee.

### Preclinical Promotions Committee Guidelines for Student on Voluntary Extended Study Program ONLY

<table>
<thead>
<tr>
<th>Basic Science Courses</th>
<th>Usual Action</th>
<th>Academic Status</th>
<th>Repeat Courses</th>
<th>Action Following Retake</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Passed</td>
<td>Promotion</td>
<td></td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1 Failure</td>
<td>Retake Course</td>
<td>Academic Warning</td>
<td>Next Academic Year</td>
<td>Fail-Dissmiss Pass-Promote</td>
</tr>
<tr>
<td>2 Failures</td>
<td>Recommend Dismissal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*May be modified by the Preclinical Promotions Committee for reasons of additional consideration. Course repeat schedule at the discretion of the Preclinical Promotions Committee. Failures in elective courses carry the same weighting as failures in core curriculum courses, such as anatomy, biochemistry, etc. W/F may be considered as a course failure by the Preclinical Promotions Committee.

### Clinical Promotions Committee

The committee meets as needed to review academic and professional progress of students in the third and fourth years. Students with academic failures, or with identified academic deficiencies, are required to meet with the committee as well as those who have not met the professional standards set forth in the Osteopathic Oath. Notification of the date, time, and place of the committee meeting is sent to students by priority mail or telephone at least 48 hours in advance. Decisions of the committee are mailed to students. The right of appeal exists and is described elsewhere in this catalog. Appeals must be filed with the Dean within three working days following official notification of the committee’s decision. The Clinical Promotions Committee also recommends to the Faculty Senate for graduation those students who have successfully completed their two years of clinical training, who have passed Level I and Level II of the National Board of Osteopathic Medical Examiners examinations, and who have paid all tuition and fees.
Clinical Promotions Committee Guidelines

<table>
<thead>
<tr>
<th>Clinical Rotation or Course</th>
<th>Usual Action*</th>
<th>Academic Status</th>
<th>Action following Retake</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Passed</td>
<td>Promote or Graduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Failure</td>
<td>Repeat Rotation or Course</td>
<td>Academic Warning**</td>
<td>Fail - Probation, Repeat of Academic Year or Dismissal Pass - Promote or Graduate</td>
</tr>
<tr>
<td>Two Failures</td>
<td>Repeat Rotation or Course</td>
<td>Academic Probation</td>
<td>Fail - Repeat Academic Year or Dismissal Pass - Promote or Graduate</td>
</tr>
<tr>
<td>Three Failures</td>
<td>Repeat Academic Year or Dismissal</td>
<td>Academic Probation</td>
<td></td>
</tr>
</tbody>
</table>

*May be modified by the Clinical Promotions Committee for reasons of additional consideration.

** Letters of academic warning will indicate that if another failure occurs the student will be placed on academic probation.

Unsatisfactory Evaluation in One or More Categories
When an unsatisfactory grade occurs in one or more categories on the evaluation form during a rotation, the student may be tracked for a period of three to twelve months based upon the increasing preponderance of unsatisfactory marks. The number of tracking months will reflect the extent of unsatisfactory marks. Tracking will necessitate notification of all departments receiving the student during the tracking period and the notification will include the areas of deficiencies that have been recognized. A request will be made to each department for close monitoring and any necessary remediation to take place to correct the deficiencies.

Re-examination/Retest
Re-examination (Retest) occurs when a student fails a course, but qualifies for a re-examination. It is the prerogative of the course director to offer or not offer a re-examination for a course failure and to determine the eligibility criteria for a re-examination. If a course director has a re-examination policy, it should be stated in the course syllabus.

If a student qualifies for a re-examination, a grade of "I" should be submitted to the Registrar at the end of the quarter. The re-examination(s) must be completed within 10 working days beginning from the first Monday following the end of the quarter. If the student passes the re-examination, the grade of "I" will be converted to the minimal passing grade of the college/program. If the student fails the re-examination, the grade of "I" will be converted to a grade of "F". If the Registrar does not receive a change of grade form within 10 working days, the "I" will automatically be changed to a grade of "F".

Retake
Retake occurs when formal repetition of an entire course or a portion of the course is required due to course failure. A failed course may be retaken due to:

1. Course failure with no reexamination offered by the department.
2. Course failure followed by failure of the reexamination.
3. Course failure and failure to meet eligibility criteria for reexamination.

The course may be repeated at MWU or at an outside institution. The course at the outside institution must be approved by the department/program as a satisfactory replacement for the failed course. It is the decision of the Pre-Clinical Promotion Committee to recommend retake of the failed course. The Pre-Clinical Committee, following department approval, will determine the time frame for completion of the repeated course.

If the student passes a repeated course, the original failure remains on the transcript as an "F." The failed course is no longer used in the computation of the GPA following repeat of the course. If the course is retaken at MWU, the student will be required to pay tuition for the course. If the student passes the course a grade of P/R will be entered onto the transcript and this grade will be used in the computation of the overall GPA.

Academic Warning & Probation
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. The Preclinical Promotions Committee issues academic warnings. For a non ESP student, an academic warning is issued when he/she has failed one class in a single quarter and up to two classes in different quarters in a single academic year. For an ESP student, an academic warning may be issued when he/she has failed one class in a quarter, as long as there are no other failures in the current academic year. When a student is placed on academic warning, it is noted in the student’s academic file. Subsequently, when the 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 represents notice that continued inadequate academic performance might result in dismissal. If a student on academic probation successfully completes a probationary quarter, his/her 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 Office of the Dean. Courses must be at the graduate level to be considered for advanced standing. A student should submit a letter to the Office of the Dean in which the student lists the course(s). The student must provide an official course description(s), a transcript, and a syllabus(syllabi) of the course(s) previously taken. It is expected that a minimum grade equal to a “B” would have been achieved in the class being petitioned. The decision to grant or deny advanced standing will be made by the department in consultation with the CCOM Dean’s Office.

Appeal Process
Following notification of a decision for dismissal, suspension, or academic deceleration into the Extended Study Program, a student may appeal, in writing, the decision within three working days to the Dean. The Dean makes the final decision on appeals. The Dean may grant an appeal only if a student can demonstrate one of the following:

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

During the appeal process, the student must continue to attend classes.

Attendance Policy
CCOM encourages students to attend all lectures, laboratory activities, and clinical assignments. Third- and fourth-year students must attend all clerkship rotations. Departments may establish their own attendance requirements.

Non-rotation events while on clinical rotations
Attendance at, and on-call requirements for clinical rotations take precedence over non-rotation events. Students must be sure that the requirements of each clinical rotation are understood and will be met prior to scheduling non-rotation events. CCOM will make every effort to accommodate non-rotation events, however the first requirement (priority) of a physician (and medical student) is patient care.

COMLEX Exam Policy
All students must pass the National Board of Osteopathic Medical Examiners (NBOME) COMLEX Level I, Level II CE, and Level II PE examinations prior to graduation. The initial attempt to pass the Level I examination must occur within 30 days after the completion of all MS2 course requirements. The initial attempt to pass the Level II CE and Level II PE examinations must occur prior to the end of Block 6 of the MS4 year.

COMLEX Eligibility
Eligibility to schedule the Level I examination requires successful completion of the Winter Quarter of the MII year, approval of the Preclinical Promotion Committee (PCP), and approval of the Dean of the osteopathic college. Eligibility to schedule the COMLEX level II exam will occur after Block 5 of the MS III year, with the successful completion of the COMLEX Level I exam, and with the approval of the Dean of the osteopathic college. COMLEX Level II PE must be taken after successful completion of an OSCE during the Clinical Integration Seminar (CIS) held during Block 2 of the MS IV year, with the successful completion of COMLEX Level I and with the approval of the Dean of the osteopathic college. COMLEX Level II PE must be taken by December 31st of the current year. The United States Medical Licensing Examination (USMLE) is not a substitute for any component of the COMLEX examination.

COMLEX Level I Failure
Any student that fails the Level I examination will be allowed to complete the clinical rotation that he/she is participating in at the time of failure notice. The student will be assigned to a minimum of one month leave of absence to study for the next attempt. The student will not participate in clinical rotations during this time. The student must meet with his/her faculty mentor and the appropriate Dean as soon as possible to determine the most appropriate course of action to prepare for the second attempt.

Any student that fails the Level I examination a second time will be allowed to complete the clinical rotation that he/she is participating in at the time of failure notice. The student will be assigned to a minimum leave of absence as determined by the Dean to study for the third attempt. The student will not participate in clinical rotations during this time. The student must meet with a Task Force (composed of his/her faculty
mentoring, the Dean of Student Services, selected Chairs of Basic and Clinical Science Departments, and the appropriate Dean) as soon as possible to determine the most appropriate course of action to prepare for the third attempt.

Any student that fails the Level I examination a third time must appear before the CPC to determine the course of action, up to and including suspension or dismissal.

**COMLEX Level II CE or PE Failure**

Any student that fails the Level II CE or PE examination must meet with the Chair of the CPC and the appropriate Dean as soon as possible to determine the most appropriate course of action with regard to whether clinical rotations may be continued and how to prepare for the second attempt.

Any student that fails either component of the Level II examination a second time must appear before the CPC to determine the course of action.

**Course Credit**

Course credits are generally determined according to the following formulation: one credit is assigned to a course for 2–4 laboratory contact hours per week; two contact hours per week involving interactive group problem-solving or discussion sessions; or one contact hour of formal lecture per week. One credit is given for each week of clinical rotations.

**Course Prerequisites**

Prerequisites for courses may be established by the department 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 approval by the Department Chair of the Department that delivers the course.

**Criminal Background Checks**

Some facilities now require criminal background checks of students who are rotating through their system. The criminal background check is valid for one year only, so it must be performed within the year prior to starting the rotation. The Office of Student Services of Midwestern University will perform the background check. The costs are included in the activity fee.

Some facilities may require the student to meet a different requirement, such as fingerprinting at a designated agency immediately prior to the start of the rotation. If the Midwestern University background check does not meet a facility’s requirement, other procedures must be performed at the student’s expense. Criminal background information will be shared with clinical sites that are affiliated with Midwestern University educational programs.

**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 the 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 in medical school is a privilege, not a right. Therefore, a student can dismissed for the following reasons:

1. Failure to exhibit the personal qualifications prerequisite to the practice of medicine.
2. Violation of CCOM rules and regulations that are grounds for dismissal.
3. Failure to achieve minimum academic standards.

Students who fail three or more courses in a single academic year, and Extended Study Program students who accumulate two failures, usually receive a recommendation for dismissal. Students who receive four cumulative course failures in the preclinical years usually receive a recommendation for dismissal. The Committee reserves the right to change its usual actions for reasons of additional consideration. All decisions of the Preclinical Promotions Committee can be appealed to the Dean in accordance with policies found in this handbook.

**Extended Study Program (ESP)**

**Voluntary.** Students have the option of voluntarily entering the ESP program. The voluntary Extended Study Program allows students additional time to address personal issues by creating a program of study that allows students to complete the first two years of the curriculum in three years. Students must petition the Dean to voluntarily become an ESP student for personal reasons no later than the end of the fifth week of a quarter. Requests received after the fifth week are reviewed by the Dean and granted only for reasons of substantiated hardship or medical emergency. Proposed schedules for all students on an extended study program are sent to department chairs for their approval prior to providing the schedule to the student.

**Academic.** A student will be placed in the Extended Study Program for academic reasons at the discretion of the appropriate Promotions Committee. A student placed in the ESP for academic reasons is automatically placed on academic probation and will not be returned to good academic standing until all failures are remediated. If a student is placed on the ESP, such action does not modify or limit the Promotion Committee’s options for recommendation for dismissal. Thus, the student may be dismissed for academic reasons while in the ESP. Proposed schedules for all students on an extended study program are
sent to department chairs for their approval prior to providing the schedule to the student.

Students who accumulate three failures over more than a single academic year or two failures in a single quarter are placed immediately in the Extended Study Program or on a leave of absence. The student is also on academic probation. They are required to retake failed courses during the regular academic year and are not eligible for summer courses either at CCOM or at any other medical school. The Preclinical Promotions Committee individually reviews ESP students who fail academic courses.

Students will be assessed pro-rata tuition for any additional years.

Schedule
Students enrolled in the Extended Studies Program (whether Voluntary or Academic) during their first and second years must be registered for either FMED 1517 or FMED 1756, and OMED 1501-1503 or OMED 1673. Students may not register for OMED 1604-1606 unless they have passed ANAT 1501 and 1502. A schedule will not be approved that includes courses that meet concurrently or courses that overlap.

Faculty Advisor/Mentor
Students are encouraged to use the advice, expertise, and help of the faculty. The faculty advisor/mentor takes a personal interest in students. Students should feel free to contact a faculty member of their choice for advice, encouragement, and support.

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

Grade Appeal Policy
I. Appeal of Non-Failing Course Grades
A student who wishes to appeal a non-failing course grade must make a written appeal to the Course Director within one week following receipt of the grade. The Course Director must act upon the student’s appeal within one week following receipt of that appeal.
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 his/her decision within one week following receipt of the student’s reappeal. The decision of the Course Director’s supervisor is final.

II. Appeal of Course Grades Subject to Academic Review
A student whose academic progress will be subject to review by his/her Promotions/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 course grade must be submitted within 24 hours following receipt of the grade and must be based on one of the premises stated above. The Course Director must act on this appeal within 24 hours. Any appeal of this decision will be addressed by the Course Director’s supervisor. The student is responsible for notifying the chair of the Promotions/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.

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 courses with a grade of withdrawal (W) or withdrawal failing (WF) or pass (P) or failed (F) that were repeated.

If a student receives a failing grade, that grade is recorded on the transcript as a letter grade or F entry. Upon repetition of a failed course, the original grade remains on the transcript and the repeated course and grade are entered on the transcript. The grade for a course that is repeated at an outside institution and passed will be recorded as a transfer credit with a grade of C. For all the repeat courses during the MS I and MS II years passed at MWU a grade of C will be recorded on the transcript. For all repeat clinical rotations during the MS III and MS IV years passed at MWU, a score of C will be recorded on the transcript. In both instances a grade of C will be used to compute the GPA.

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:
<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent (%)</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93–100</td>
<td>4.000</td>
<td>—</td>
</tr>
<tr>
<td>A–</td>
<td>90–92</td>
<td>3.670</td>
<td>—</td>
</tr>
<tr>
<td>B+</td>
<td>87–89</td>
<td>3.330</td>
<td>—</td>
</tr>
<tr>
<td>B</td>
<td>83–86</td>
<td>3.000</td>
<td>—</td>
</tr>
<tr>
<td>B–</td>
<td>80–82</td>
<td>2.670</td>
<td>—</td>
</tr>
<tr>
<td>C+</td>
<td>77–79</td>
<td>2.330</td>
<td>—</td>
</tr>
<tr>
<td>C</td>
<td>70–76</td>
<td>2.000</td>
<td>—</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 70</td>
<td>0.000</td>
<td>—</td>
</tr>
</tbody>
</table>

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. To resolve an incomplete grade, an instructor must fill out and submit a Change of Grade form to the Registrar. All incomplete grades must be resolved within 10 working days starting from the first Monday following the end of the quarter unless there is written authorization by the Dean to extend the deadline. If an incomplete grade remains beyond the 10 days, it may be converted to a grade of “F,” which signifies failure of the course.

P — 0.000 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 — 0.000 Withdrawal before the end of the quarter with passing work. There is no penalty and no credit.

W/P — 0.000 Withdrawal/Passing is given after 3 or more weeks from the beginning of the quarter; grade indicates that the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation.

W/F — 0.000 Withdrawal/Failing is given after 3 or more weeks from the beginning of the quarter; grade indicates that the work completed up to the time of withdrawal was unsatisfactory. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Program Student Academic Review Committee. Students are not allowed to withdraw from a course after the end of the eighth week of class.

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 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.

**Graduation Requirements**

The degree Doctor of Osteopathic Medicine 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 ceremony at which the degree is conferred, unless excused by the Dean.

Students must pass COMLEX Level I and both components of the COMLEX Level II examinations of the National Board of Osteopathic Medical Examiners. A minimum of 45 months must elapse between the date of matriculation and graduation.
Graduation Walk-Through Policy

1. A student who has not satisfied academic requirements for a particular degree may seek permission to participate in a graduation ceremony for his/her program/college if the student will complete all academic requirements for the degree within one quarter immediately following the official scheduled end of the academic program for his/her class.

2. To seek permission, the student must submit a formal request to participate in the graduation ceremony to the Dean of CCOM. The request should be submitted no later than eight weeks prior to the official graduation date for CCOM.

3. The Dean is responsible for verifying that the student will fulfill the graduation requirements by the end of the summer quarter. The Dean forwards the request to the Clinical Promotions Committee (CPC) for consideration. If approved by the CPC, the committee will add the student to the proposed list of candidates for graduation, denote on the listing that the student will not have completed the academic requirements by the official graduation date, and then forward the list of candidates to the Dean. The Dean will then forward the list of candidates for graduation to the MWU Faculty Senate for review and approval at an appropriately scheduled meeting, prior to the official graduation date. The Senate will forward the list of approved candidates for degrees to the University President for review and approval by the Board of Trustees.

Immunization Policy

Full-time students enrolled in a program with a clinical component are required to have all immunizations as outlined in the general policy section of this handbook.

Liaison Structure

Student/Faculty Liaisons/Representatives, Preclinical

Each class elects student liaisons/representatives following the guidelines stated in the current Student Handbook. The student liaisons/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 the first and second years. The student liaisons/representatives can meet directly with the Associate Dean, the chairpersons, the course directors or the faculty of the departments formally involved in the preclinical curriculum to address the issues noted above.

Student/Faculty Liaisons/Representatives, Clinical

Each class elects student liaisons/representatives following the guidelines stated in the current Student Handbook. The student liaisons/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 the third and fourth years. The student liaisons/representatives can meet directly with the Associate Dean, the chairpersons, the course directors and the faculty of the departments formally involved in the clinical curriculum to address the issues noted above.

Licensure Requirements

Licensure for the practice of medicine is granted on a state by state basis. Graduates of Chicago College of Osteopathic Medicine qualify for licensure in all 50 states. Graduates are referred to the licensing board in each state in which they have interest in licensure, to obtain the specific requirements.

Prerequisites

Prerequisites for courses may be established by the department that administers the course. Prerequisites are recommended to the Curriculum Committee for approval and are listed within the course description in the catalog.

On a case-by-case basis, prerequisites may be waived upon approval of the department chair of the department that delivers the course.

Retaking Failed Courses

Only students with one or two failures in a given academic year may retake courses in the summer. Such courses must fulfill the same performance requirements of the regular academic year and tuition will be billed accordingly. Failures are made up in one of three ways:

1. Students must retake the failed course if it is offered through CCOM.
2. Students may take the failed course at an accredited institution that offers comparable course content and curriculum as reviewed and approved by the department chair and the dean.
3. Departments may offer, and students can elect to take a faculty-supervised remedial course. Students will be charged tuition for any failed courses offered for retake on the Downers Grove campus by the CCOM Departments.

Students are limited to the second option if the department does not offer a remedial course as outlined in options one and three. Students who are unsuccessful in passing remedial courses are remanded to the Preclinical Promotions Committee before the start of the next academic year.

Satisfactory Academic Progress

As required by federal law, reasonable standards of satisfactory academic progress have been established by CCOM for the Doctor of Osteopathic Medicine program. These standards apply to all students applying for or currently receiving financial assistance. The policy and procedure for assessing financial aid status is noted in the Student Financial Services section of this handbook.
Suspension
Academic suspension may occur when a student has failed one or more courses or has accumulated two or more quarters of cumulative GPA less than required by his/her program. Academic suspension may or may not be preceded by academic probation. This action entails the removal 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. Academic suspension is noted on the student’s transcript.

The student who has been suspended does not have to reapply for admission and is guaranteed re-entry into his/her academic program upon successful completion of all deficient 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.

Supervision of Medical Students by Physicians Only
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

Any licensed physician, as defined above, who is designated as a teacher for CCOM students is recognized to be a member of the extended faculty.

Travel for Clinical Education/Fieldwork
The professional programs of CCOM require that the students receive instruction in a clinical setting. As a result, it will be necessary for students to make arrangements for transportation to and lodging near clinical facilities. The University does not provide for the cost of transportation or lodging. Travel arrangements are the sole responsibility of the student. 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 responsible for out of pocket expenses associated with clinical education, such as transportation, meals, housing, professional attire, laboratory fees, etc. Tuition covers the educational cost of the rotation.

Withdrawal from Courses
Any student who wishes to withdraw from one or more courses must first receive approval from their respective Course Director. Following approval by the Course Director, the withdrawal must be approved by the Program Director and the CCOM Dean. If the approval is granted, the student receives one of the following grades: W (withdrawn), W/P (withdrawn passing), or W/F (withdrawn failing).

Withdrawal (W) can be given only during the first three weeks of the course. There is no penalty and no credits. Between the start of the fourth week and the end of the eighth week of the quarter, if work completed up to the time of withdrawal is satisfactory, the student will receive a Withdrawal/Passing (W/P) grade. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation. Between the start of the fourth week and the end of the quarter, if work completed up to the time of withdrawal is below a “C” level, the student will receive a Withdrawal/Failing (W/F) grade. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Pre-Clinical Promotion Committee when reviewing the academic status of a student. Multiple F/s and W/F’s can be grounds for dismissal.

Students are not allowed to withdraw from a course after the end of the eighth week of class, unless there are exceptional circumstances.

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

Students contemplating withdrawal must inform the Dean of the decision to voluntarily withdraw and voluntarily relinquish his/her position in the program. The student must contact the Dean’s Office and must complete the appropriate clearance procedures. The withdrawal process includes the clearing of all financial obligations of MWU and an exit interview. 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 his/her program without complying with the above procedures. For more information, see the Student Financial Services sections on Notification of Withdrawal and Return of Title IV Funds/MWU Refund Policy.

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<thead>
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<th>Institution</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
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Jennifer A. Daru, M.D.
Dartmouth Medical School
Clinical Assistant Professor

James R. Hunter, Jr., M.D.
University of Illinois College of Medicine
Clinical Assistant Professor

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

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

Paul A. Panzica, M.D.
Southern Illinois University School of Medicine
Clinical Assistant Professor

Marvin Zelkowitz, M.D.
Medical College of Virginia, School of Medicine
Clinical Associate Professor

FACULTY LIST FOR PHARMACOLOGY
Donald R. Bennett, M.D., Ph.D.
University of Michigan
Adjunct Professor

George T. Caleel, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Michael J. Fay, Ph.D.
University of Mississippi
Associate Professor

FACULTY LIST FOR PATHOLOGY
Marylee A. Braniecki, M.D.
Kansas University School of Medicine
Adjunct Assistant Professor

Philip F. Dupont, M.D., Ph.D.
Universidad Autonoma de Ciudad Juarez
Adjunct Assistant Professor

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

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George T. Caleel, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Michael J. Fay, Ph.D.
University of Mississippi
Associate Professor
Alejandro M. Mayer, Ph.D.
University of Buenos Aires
Professor

M. Beatriz Mayer, M.A.
Northern Illinois University
Adjunct Instructor

Jacob D. Peuler, Ph.D.
Pennsylvania State University
Professor

Walter C. Prozialeck, Ph.D.
Thomas Jefferson University
Professor

**FACULTY LIST FOR PHYSIOLOGY**

Dorothy K. Hines, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Albert F. Kelso, Ph.D.
Loyola University Graduate School
Professor Emeritus

Kathy J. LePard, Ph.D.
Ohio State University
Associate Professor

Paul F. McCulloch, Ph.D.
University of Saskatchewan
Associate Professor

Rafael Mejia-Alvarez, M.D., Ph.D.
Universidad Nacional Autónoma de México School of Medicine
Baylor College of Medicine
Associate Professor

Kathleen P. O’Hagan, Ph.D.
Rutgers University
Professor and Chair

Dennis J. Paulson, Ph.D.
Texas Tech University School of Medicine
Professor and Vice President and CAO for Medical and Dental Education

Jacquelyn M. Smith, Ph.D.
University of Michigan
Professor and Dean of College of Health Sciences

Gordon M. Wahler, Ph.D.
University of Minnesota
Professor

**FACULTY LIST FOR BEHAVIORAL MEDICINE/PSYCHIATRY**

Behavioral Medicine

Wendell Carpenter, Ph.D.
Illinois Institute of Technology
Clinical Associate Professor

Karen Farrell, Psy.D.
Illinois School of Professor Psychology
Professor

John Galik, Ph.D.
Northwestern University
Clinical Assistant Professor

Michelle Lee, Ph.D.
Case Western University
Assistant Professor

Jeff Maney, Ph.D.
Northern Illinois University
Adjunct Assistant Professor

Richard Ney, Ph.D.
Loyola University
Professor

Pierre Nunez, Ph.D.
Northwestern University
Adjunct Assistant Professor

Frank Prerost, Ph.D.
DePaul University
Professor and Program Director

Mario Robbins, D.O.
Michigan State University
College of Osteopathic Medicine
Clinical Instructor

Diana Semmelhack, Psy.D.
Illinois School of Professor Psychology
Assistant Professor

Gloria Workman, Ph.D.
DePaul University
Assistant Professor

Psychiatry

Melvin Gray, M.D.
University of Louisville
Professor Emeritus

Sheila Rao, D.O.
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Chicago College of Osteopathic Medicine
Clinical Instructor

Akram Razzouk, M.D.
University School of Medicine
Clinical Professor

Ann Sauer, Ph.D.
Loyola University
Assistant Professor
Alex Spadoni, M.D.
Loyola University Stritch School of Medicine
Clinical Professor

Shahnour Yaylayan, M.D.
American University of Beirut, Medical Center
Clinical Assistant Professor

FACULTY LIST FOR SURGERY

Basel I. Al-Aswad, M.D.
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Joseph P. Allegretti, M.D.
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Clinical Assistant Professor

Emmanuel S. Bansa, D.O.
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Chicago College of Osteopathic Medicine
Clinical Associate Professor

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Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Richard T. Beaty, D.O.
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Clinical Assistant Professor

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Clinical Assistant Professor

Albert A. Bucar, O.D.
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Clinical Assistant Professor

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Clinical Professor

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College of Osteopathic Medicine
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Chicago College of Osteopathic Medicine
Clinical Assistant Professor

James R. Davis, D.O.
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Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Judy L. Davis, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

James C. Doherty, M.D.
Northwestern University Medical School
Clinical Assistant Professor

Scott O. Donnelly, D.O.
Michigan State University
College of Osteopathic Medicine
Clinical Assistant Professor

I. Harun Durudogan, D.O.
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Chicago College of Osteopathic Medicine
Clinical Associate Professor

Jay M. Dutton, M.D.
The University of Iowa
Clinical Assistant Professor

William J. Ennis, D.O., MBA
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Clinical Professor

Anton J. Fakhouri, M.D.
Rush Medical College
Clinical Associate Professor

Brian P. Farrell, M.D.
Loyola University of Chicago, Stritch School of Medicine
Clinical Assistant Professor

Timothy P. Flood, M.D.
UCLA School of Medicine
Clinical Assistant Professor

Robert E. Gorsich, M.D.
University of Illinois, College of Medicine
Clinical Assistant Professor

Anthony M. Grimaldi, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Burnetta E. Herron, M.D.
The University of Texas
Clinical Assistant Professor

James R. Ingram, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Michael J. Iwanicki, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor
Keith A. Kattner, D.O.
Kirkville College of Osteopathic Medicine
Clinical Assistant Professor

Barry J. Kaufman, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Brett L. Keller, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Mary E. Keller, M.D.
University of Missouri
Clinical Assistant Professor

Irving Kernis, O.D.
Northern Illinois College of Optometry
Clinical Assistant Professor

Donald W. Kucharzyk, D.O.
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Neal M. Lofchy, M.D.
University of Toronto, Canada
Clinical Assistant Professor

P. Robert Lombardo, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Silvio Marra, M.D.
University of Illinois
Clinical Assistant Professor

Wendy J. Marshall, M.D.
University of Vermont, School of Medicine
Clinical Assistant Professor

Timothy J. McCarthy, D.O.
Des Moines University
College of Osteopathic Medicine
Clinical Assistant Professor

Albert F. Milford III, D.O.
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Chicago College of Osteopathic Medicine
Clinical Professor

Richard F. Multack, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Vijay S. Nair, M.D.
Trivandrum Medical College (Kerala University)
Clinical Associate Professor

Mildred M. G. Olivier, M.D.
University of Health Sciences/Chicago Medical School
Clinical Assistant Professor

David H. Orth, M.D.
Chicago Medical School
Clinical Assistant Professor

Randy L. Pachnik, DPM
Illinois College of Podiatric Medicine

William R. Panje, M.D., M.S.
University of Iowa College of Medicine
Clinical Assistant Professor

William K. Payne, III, M.D., MPH
University of California at Los Angeles, School of Medicine
Clinical Professor

Leonard S. Piazza, M.D.
The Chicago Medical School
Clinical Assistant Professor

Keith R. Pitchford, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Brian D. Proctor, D.O.
Michigan State University College of Osteopathic Medicine
Clinical Instructor

Paul S. Ray, D.O.
Des Moines University
College of Osteopathic Medicine
Clinical Professor

Jeffrey Rosen, M.D.
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Clinical Assistant Professor

Yousef Sayeed, M.D., MBA
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Midwestern University
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Clinical Assistant Professor

Paul M. Stec, DDS
Marquette University DDS Dental School
Clinical Assistant Professor

Aswath Subram, M.D.
Bangalore Medical College
Clinical Assistant Professor
Isaac M. Thapedi, M.D.
Howard University College of Medicine
Clinical Assistant Professor

Thomas E. Turcotte, D.O.
Michigan State University College of Osteopathic Medicine
Clinical Associate Professor

Douglas J. Van Putten, M.D.
Loma Linda University Medical School
Clinical Assistant Professor

Christine A. Walko, O.D.
Illinois College of Optometry
Clinical Instructor

Tian Xia, D.O.
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor
MISSION
Midwestern University Chicago College of Pharmacy (CCP) fosters lifelong learning through excellence in education, postgraduate programs, and scholarship. The College encourages the development of professional attitudes and behaviors to prepare pharmacists who will provide exemplary patient care in a culturally diverse society.

The Chicago College of Pharmacy embraces the values of learning and discovery, excellence, professionalism, and collegiality in everything that we do: teaching, patient care, research, and service.

ACCREDITATION
The Doctor of Pharmacy (Pharm.D.) degree program is accredited by the Accreditation Council for Pharmacy Education (ACPE), 20 N. Clark Street, Suite 2500, Chicago, Illinois 60602-5109, 312/664-3575; Fax 312/664-4652; URL www.acpe-accredit.org.

INSTRUCTIONAL PROGRAMS
The College’s Pharm.D. Program provides students with enhanced experiences in the biomedical, pharmaceutical, and clinical sciences. The program requires six years of coursework, the first two years at another college and the last four years at CCP. The College has two paths leading to the Pharm.D. degree:

1. Students will be enrolled in the full time traditional Pharm.D. Program with the start of the first professional year.

2. Students who are registered pharmacists and have a valid U.S. or Canadian pharmacist license can be enrolled in the Nontraditional Pharm.D. Program. This is a self-paced, largely self-instructional, flexibly scheduled program in which a part-time student can complete degree requirements over approximately two to four years. This program is being phased out and is no longer accepting students.

CURRICULUM OUTCOMES
At the conclusion of the Pharm.D. Program, all graduates will achieve the following outcomes:

1. Patient Care Domain
   - Practice pharmaceutical care
   - Practice evidence-based clinical decision making
   - Promote public health and disease prevention

2. Practice Care Management Domain
   - Develop and manage a pharmacy practice
   - Evaluate outcomes data associated with the practice of pharmacy

3. Professionalism Domain
   - Participate effectively in interdisciplinary health care teams
   - Communicate effectively
   - Demonstrate critical-thinking and problem-solving skills
   - Act in a professionally responsible manner and promote such action in others
   - Demonstrate self-assessment and self-directed learning

ADMISSIONS
CCP considers for admission applicants who possess the academic and professional promise necessary to become outstanding members of the pharmacy profession. The CCP admissions environment is highly selective; approximately 2,300 applications were received in 2008.

Completed applications received on or before the application deadline are reviewed to determine the applicant’s eligibility to be invited for an on-campus Mandatory Candidate Visit. Within its competitive admissions framework, CCP uses multiple criteria to select the most qualified candidates. Cumulative grade point average, science grade point average, PCAT scores, letters of recommendation, written communication skills, health care experience, knowledge of the profession, and motivation for wanting to become a pharmacist will all be considered when reviewing an applicant’s file.
Admission Requirements for the Entry-Level Pharm.D. Program for Applicants Seeking a Fall 2009 Start Date

To be considered for admission to CCP, a prospective student must do the following:

1. Complete 62 semester hours or 90 quarter hours of nonremedial, prerequisite coursework from a regionally accredited U.S. college or university, or recognized post secondary Canadian institution that uses English as its primary language of instruction and documentation. The student must earn a grade of C or better in each prerequisite course.

2. Earn a minimum cumulative grade point average and science grade point average of 2.50 on a 4.00 scale.

3. Arrange for scores from the Pharmacy College Admissions Test (PCAT) to be sent directly to PharmCAS using PCAT code 104. This exam is offered by Harcourt Assessment, Inc., (also known as Pearson), 800-622-3231; www.pcatweb.info. The exam is offered multiple times throughout the year. Only scores earned from the test offered in June 2005 or more recently will be accepted.

4. Reflect a people/service orientation through community service or extracurricular activities.

5. Reflect proper motivation for and commitment to the pharmacy 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.

7. Complete the CCP on-campus interview process (by invitation only).

8. Pass the Midwestern University criminal background check.

9. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.

The Pharm.D. program at CCP is rigorous and challenging. In light of this, the CCP Admissions Committee will assess the quality and rigor of the pre-pharmacy academic records presented by each applicant. When assessing an applicant’s pre-pharmacy academic record, the Admissions Committee will:

1. View applicants with cumulative grade point averages below 2.75 on a 4.00 scale with particular concern. While 2.50 on a 4.00 scale is the minimum cumulative grade point average for consideration, to be competitive for admission a higher cumulative grade point average is recommended. The average cumulative grade point average of applicants admitted for fall 2007 was 3.34 on a 4.00 scale.

2. View component and composite PCAT scores below the 50th percentile with particular concern. While there are no minimum PCAT scores, the average composite PCAT score of applicants admitted for fall 2007 was in the 81st percentile.

3. Pay special attention to applicants that include pre-pharmacy math and science coursework that was completed more than 10 years ago. It is preferred that applicants have recent (within four years) pre-pharmacy math and science coursework.

4. Consider the institution where coursework was taken, the extent to which science prerequisites have been completed, the credit load per term, the difficulty of coursework taken, and trends in grades as factors when evaluating the quality and rigor of an applicant’s pre-pharmacy academic record.

### Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with lab</td>
<td>8 Semester/12 quarter hours</td>
</tr>
<tr>
<td>Human or Vertebrate Anatomy</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>8 Semester/12 quarter hours</td>
</tr>
<tr>
<td>Organic Chemistry with lab</td>
<td>8 Semester/12 quarter hours</td>
</tr>
<tr>
<td>Physics (mechanics, heat, force and motion must be included in the course)</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>Calculus (Integral &amp; Differential)</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>English Composition</td>
<td>6 Semester/9 quarter hours</td>
</tr>
<tr>
<td>Speech/Public Speaking</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>Economics</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>Statistics (general statistics or biostatistics)</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>Social and Behavioral Science Electives (Includes course within the areas of psychology, sociology and anthropolpgy)</td>
<td>6 Semester/9 quarter hours</td>
</tr>
<tr>
<td>General Education Electives (Any course not related to science, math, physical education, or health care. Recommended courses include arts and humanities, social and behavioral sciences, foreign language, and business and computer courses.)</td>
<td>8 Semester/12 quarter hours</td>
</tr>
</tbody>
</table>

**Total** | 62 Semester/90 quarter hours

INTERNATIONAL STUDENTS: 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, six hours in non-remedial English composition, and three hours in speech/public speaking.

CCP applicants who wish to receive transfer 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 or Fax 414/289-3411 (www.ece.org, e-mail: info@ece.org)
• World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org, e-mail: info@wes.org)
• Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

International students 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 a recognized post-secondary institution in Canada that uses English as its primary language of instruction and documentation.

Application Process and Deadlines
CCP uses a two-step application process. The applicant must submit both a completed PharmCAS application and a college supplemental application.

1. PharmCAS Application:
Applicants are required to submit an online application and an application fee to PharmCAS by January 5, 2009. In addition to the on-line application and application fee, applicants must forward official transcripts from all colleges and universities attended to PharmCAS by the January 5th 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.PhamCAS.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. Due to the large number of applications and the limited number of seats available, students are strongly encouraged to complete their PharmCAS application and their CCP supplemental application early in the cycle. CCP will consider completed applications on a first-come, first-served basis until all seats are filled.

2. Pharmacy College Admissions Test (PCAT):
Arrange for scores from the Pharmacy College Admissions Test (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 June 2005 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 four times per year. However, please note to meet the application deadline dates, 1st time PCAT test takers must take the exam prior to January 2009. Please check with Harcourt Assessment, Inc. for the exam dates.

3. Letters of Recommendation:
Applicants must submit two letters of recommendation from professionals to PharmCAS (www.PhamCAS.org). The Office of Admissions will only accept letters of recommendation received directly from PharmCAS. It is required that one letter be from a college professor who has actually taught the student or a prehealth advisory committee. It is preferred that the second letter be from a pharmacist. However, any one of the following type of recommenders are also acceptable: prehealth advisory committee, 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. Supplemental Application:
After receiving the student’s PharmCAS application (www.PhamCAS.org) from the application service, the Office of Admissions will email a supplemental application to all applicants who meet the minimum cumulative and science GPA requirement of 2.50 on a 4.00 scale. Applicants must complete and submit the supplemental application with the required information and the application fee to the Office of Admissions on or before March 2, 2009.

5. Completed Applications
All application materials, including the PharmCAS application, PCAT scores (as reported to PharmCAS), two letters of recommendation (as submitted to PharmCAS), and supplemental application materials with the application fee must be received in the Office of Admissions on or before March 2, 2009. 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 their application materials and verifying the status of their application on the University website. The Office of Admissions will send qualified applicants instructions 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. Contact information for the Office of Admissions follows:

Midwestern University
Office of Admissions
555 31st Street
Downers Grove, IL 60515
630-515-7200; 800-458-6253
admissil@midwestern.edu
Rolling Admissions
The Chicago College of Pharmacy uses a rolling admissions process where applications are processed and reviewed during regular intervals in the admissions cycle until the class is filled.

Interview Process
To be considered for an invitation to attend an on-campus Mandatory Candidate Visit, applicants must meet the admission requirements listed previously. After the Office of Admissions receives all required application materials, the applicant’s file is reviewed to determine if the applicant merits an invitation to attend a Mandatory Candidate Visit. The applicant’s file may also be placed on a waiting list pending possible openings toward the end of the admissions cycle. Visits are typically held between November and April. Invited applicants must attend a Mandatory Candidate Visit in order to be considered further in the admissions process.

As part of the visit, candidates will be required to participate in a group interview with other pharmacy applicants. The group interview will be used to evaluate the applicant’s verbal communication skills, understanding of the pharmacy profession, commitment to patient care, and other elements as determined by faculty. Applicants will also be required to participate in a writing sample exercise during the visit. In addition, candidates will have the opportunity to learn more about the pharmacy program, financial aid, student services, and tour the Midwestern University campus.

Following the applicant’s visit, their file is forwarded to the Admissions Committee for review. The committee may recommend to accept, deny, or to place the student on the alternate list. This recommendation is then forwarded to the Dean for final approval. The Dean—via the Office of Admissions—notifies the applicant of his/her status within two to four weeks of the visit.

A student who has been accepted for a given year must matriculate during that year. No admission deferments will be allowed. If a student fails to matriculate, the student must reapply the following year if he/she wishes to be admitted to the College.

All requests for withdrawing an application must be done in writing.

Technical Standards for Admission
The educational mission of CCP is to educate and graduate competent and motivated pharmacists who will provide pharmaceutical care in a wide range of community and institutional settings. The technical standards for admission set forth by CCP outline the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty and by the ACPE, the pharmacy-accrediting agency, to obtain the Pharm.D. degree.

A candidate must have abilities and skills in five areas: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. 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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. 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.

III. 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.

IV. 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.

V. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her 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 for admission to CCP are required to certify that they understand and meet these technical standards. Candidates must provide such certification prior to matriculation. Candidates who may not meet the technical standards are encouraged to contact the Director of Admissions to discuss and identify what accommodations, if any, CCP would need to make in order that the candidate might be able to meet the standards.
Matriculation Process for the Entry-Level Pharm.D. Degree Program

The matriculation process begins after a student receives notification of his/her acceptance. The student must submit both their signed matriculation agreement and deposit by the deadline date. The student must also do the following:

1. Submit specified deposit monies by the dates designated in his/her matriculation documents. The entire deposit is applied toward the student’s first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the college. If students fail to submit all official final transcripts by the stated deadline, then their acceptance or continued enrollment in the College may be jeopardized.
3. Submit a completed medical file as instructed in the information sent by the Office of Student Services.
4. Submit proof of medical insurance coverage.
5. Submit additional documents as requested by the Office of Admissions.
6. Submit proof of Illinois residency. This applies only to those students claiming Illinois residency. The student must submit a copy of his/her up-to-date Illinois driver’s license and his/her Illinois income tax returns for the previous year. Parental tax returns may also be requested.
7. Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CCP (for non-U.S. citizens/temporary residents who hold a student visa only).
8. Submit a copy of his/her pharmacy technician license.
9. Sign authorization form allowing for a criminal background check.
10. Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy Statement.
11. Satisfy Technical Standards for the program.
12. Sign Credit Policy Statement

If a student either fails to satisfy these matriculation requirements or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat at CCP. The student receives no further notification from CCP relative to this forfeiture.

Dual Acceptance Programs

Loyola University Chicago College of Arts and Sciences, Benedictine University, Dominican University, Illinois Institute of Technology, Milliken University, Lewis University, and the University of Saint Francis (Fort Wayne, IN) offer a Dual Acceptance Program with CCP for selected students who successfully complete the specified coursework; such students will be granted an early acceptance to CCP. To receive consideration for the Dual Acceptance Program, students must meet the following eligibility requirements:

- Be a senior high school student at the time of application;
- Be admitted to an affiliated college or university, which offers a dual acceptance program;
- Apply to the dual acceptance program by February 15 immediately prior to the beginning of the student’s first year at the affiliated college or university;
- Score in the top 20% on a college entrance exam (ACT 25 or higher; SAT of 1700 or higher). To be considered, applicants must submit national test scores for ACT or SAT that include a writing component score.
- Earn a minimum cumulative grade point average of 3.2 on a 4.0 scale;
- Reflect a people/service orientation through community service or extracurricular activities;
- Reflect proper motivation for and commitment to the pharmacy profession as demonstrated by previous work, volunteer, or other life experiences; and
- Possess the oral and written communication skills necessary to interact with patients and colleagues.

An eligible student should obtain the application from the affiliated college or university that offers the Dual Acceptance Program. The deadline for submitting a completed application is February 15.

After the Midwestern University Office of Admissions receives all completed application materials from the affiliate colleges, all applicant files are reviewed to determine which applicants merit an invitation to attend a Mandatory Candidate Visit. Invited applicants must attend a Mandatory Candidate Visit in order to be considered further in the admissions process.

As part of the visit, candidates will be required to participate in a group interview with other dual acceptance applicants. The group interview will be used to evaluate the applicant’s verbal communication skills, understanding of the pharmacy profession, commitment to patient care, and other elements as determined by faculty. Applicants will also be required to participate in a writing sample exercise during the visit. In addition, candidates will have the opportunity to learn more
about the pharmacy program, financial aid, student services, and tour the Midwestern University campus.

Following the applicant's visit, their file is forwarded to the Admissions Committee for review. The committee may recommend to accept or deny the student. This recommendation is then forwarded to the Dean for final approval. The Dean—via the Office of Admissions—notifies the applicant of his/her status within two to four weeks of the visit. Accepted applicants will be ensured a seat at CCP upon successful completion of the following program requirements:

- All prerequisite pre-pharmacy courses must be completed at the affiliated college or university that offers a dual acceptance program within a two-year period;
- A minimum cumulative grade point average of 3.20 must be achieved at the end of the spring semester/quarter of the first and second pre-pharmacy years and at the end of all pre-pharmacy coursework at the affiliated college or university;
- Students must earn a grade of "C" or higher in all required courses. A grade of C- or less is not acceptable;
- Students cannot repeat any prerequisite course for a higher grade;
- Students must submit all required deposit fees according to the schedule in the letter of understanding, which is provided to the student at the time of acceptance to the Dual Acceptance Program; and
- Students must comply with the requirements outlined in the matriculation agreement and technical standards certification form, which are provided to the students in their spring of their second pre-pharmacy year.

The PCAT and PharmCAS application are waived for students who successfully complete the Dual Acceptance Program at Loyola University, Benedictine University, Dominican University, Illinois Institute of Technology, Milliken University, Lewis University, or the University of Saint Francis.

Any student who fails to complete the program can apply to CCP via the usual route.

**Readmission After Dismissal for Poor Academic Performance**

Students dismissed for poor academic performance may reapply for admission to CCP if they:

1. Complete at least 2 semesters or 3 quarters of full-time study (i.e., at least 15 credit hours per semester or quarter) of a curriculum at the advanced pre-pharmacy level or higher at a regionally accredited U.S. college or university. In addition, prior to enrolling in this advanced pre-pharmacy curriculum students must seek academic counseling from the CCP Dean’s Office, which will inform the student of the Student Promotion and Graduation Committee’s recommendations;

2. Maintain a cumulative GPA of 2.5 or greater for the 2 semesters or 3 quarters of full-time study at the advanced pre-pharmacy level or higher; and

3. Earn at least C (not C–) grades in all courses taken.

Students fulfilling these requirements will be permitted to reapply to the University and to the College. The student should obtain the application from the CCP Dean’s Office, and not through PharmCAS. The application deadline is April 1st. The completed application of a reapplying PS-I student will be forwarded by the CCP Dean’s Office to the Admissions Committee for review and recommendation. The completed application of a reapplying PS-II, PS-III, or PS-IV student will be forwarded by the CCP Dean’s Office to the Student Promotion and Graduation Committee for review and recommendation. Each committee’s recommendations are forwarded to the Dean for action. No guarantee of re-admission is implied, and questions related to advanced standing and similar issues will be addressed as they are for any new applicant. Reapplication is allowed only within the first two years following dismissal. Readmission will be granted only once.

**Transfer Admission from Another Pharmacy School**

CCP may accept transfer students from other ACPE-accredited pharmacy schools as long as these students are currently enrolled, in good academic standing and have legitimate reasons for seeking a transfer.

Transfer applicants should not apply via PharmCAS.

All requests for transfer information should be referred to the CCP Dean’s Office, so that the potential transfer applicant can be counseled prior to submitting an application and can receive an application.

To be considered for transfer, a student must meet the College’s general requirements for admission. He/she must also submit the following documents by March 1:

1. A letter to the Dean or Director of Admissions indicating why he/she wishes to transfer and explaining any difficulties encountered at his/her current institution;

2. A completed CCP transfer application;

3. Official transcripts from all schools attended—undergraduate, graduate, and professional;

4. A catalog and a detailed pharmacy syllabus for any courses for which advanced standing consideration is requested;

5. A letter from the dean of the pharmacy college in which the student is enrolled. The letter must indicate the student’s current academic status;

6. One letter of recommendation from a faculty member at the current college of pharmacy; and

7. Additional documents or letters of recommendation as determined by the Director of Admissions or Dean.
The Office of Admissions will collect and forward the student’s portfolio to the CCP Dean’s Office for review. If the review is positive, the candidate will be invited in for a mandatory candidate visit. As part of the visit, candidates will be required to participate in a group interview with other pharmacy applicants. The group interview will be used to evaluate the applicant’s verbal communication skills, understanding of the pharmacy profession, commitment to patient care, and other elements as determined by faculty. Applicants will also be required to participate in a writing sample exercise during the visit. In addition, candidates will have the opportunity to learn more about the pharmacy program, financial aid, student services, and tour the Midwestern University campus.

Following the applicant’s visit, their file is forwarded to the Admissions Committee for review. The committee may recommend to accept, deny, or to place the student on the alternate list. This recommendation is then forwarded to the Dean for final approval. The Dean - via the Office of Admissions - notifies the applicant of his/her status within two to four weeks of the visit. If the transferring student is admitted and requests advanced standing, the CCP Dean’s Office will forward the student’s request to the Student Promotion and Graduation Committee. (See relevant section below.) No advanced standing credit will be awarded for professional pharmacy coursework completed at a foreign college of pharmacy.

PCAT scores are optional for the transfer student applicant to provide.

Reaplication Process for the Entry-Level Professional Degree Program
After receiving either a denial or end-of-cycle letter, an applicant may reapply for the next enrollment cycle. Before reapplying, however, the applicant should seek the advice of an admissions counselor. To initiate the reaplication process, the student must submit an application to PharmCAS. The application is then processed in the same manner as any other application.

Graduation Requirements for the Traditional Pharm.D. Program
To qualify for graduation, a student must have satisfied the following requirements:

1. Successfully completed a minimum of 87 quarter hours credit of prerequisite coursework, as stipulated, for full admission to the program if the student matriculated in or prior to Fall 2007. For students who matriculated in Fall 2008 or after, they must successfully complete a minimum of 90 quarter hours of credit of prerequisite coursework, as stipulated for full admission to the program.
2. Successfully completed the program of professional and experiential coursework approved by the CCP faculty and Dean.
3. Attained a cumulative grade point average of 2.00 for all requisite professional and experiential coursework at the College.
4. Achieved a cumulative Advanced Pharmacy Practice Experience (APPE) grade point average for APPEs and Pharm. D. Seminar of 2.00 or greater if the student matriculated in or prior to Fall 2007. For students who matriculated in Fall 2008 or thereafter, they must achieve a cumulative APPE grade point average of 2.00 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 APPEs at CCP.
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. Attended the commencement exercises 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 CCP 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, fails to meet the ethical and moral requirements of the profession, and may be dismissed from any program or denied the awarding of the Pharm.D. degree from CCP.

Graduation Requirements for the Nontraditional Pharm.D. Program
To qualify for graduation, a student must have satisfied the following requirements:

1. Successfully completed the program of professional and experiential coursework as approved by the CCP faculty and Dean;
2. Attained a cumulative GPA of 2.00 for all requisite professional and experiential coursework at CCP;
3. Repeated, upon approval, and earned a passing grade for any required courses in the professional program for which a grade of “F” had been issued;
4. Attained a GPA for all APPEs of 2.00 or greater and no APPE failures;
5. Completed, at a minimum, one half of the required credits of didactic courses and a minimum of 240 hours of experiential education at CCP;
6. Be recommended for the degree by a majority vote of the Student Promotion and Graduation Committee;
7. Settled all financial accounts with the University;
8. Attended the commencement exercises for conferral of the degree in September, unless excused by the Dean.

**Licensure Requirements**
To practice in most states, including Illinois, students must successfully complete a Doctor of Pharmacy program accredited by the Accreditation Council for Pharmacy Education. Students must also pass two licensure examinations: one scientific examination (NAPLEX) and one jurisprudence examination (MPJE). For more information about licensure examinations contact: National Association of Boards of Pharmacy, 1600 Feehanville Drive, Mount Prospect, IL 60056, (847) 391-4406, www.nabp.net.

**Entry-Level Pharm.D. Curriculum**
This program plan applies to all students who matriculated into the College of Pharmacy on or before Fall 2007. The College reserves the right to alter the curriculum as it deems appropriate.

### First Professional Year

#### Fall Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>PHYS 0301</td>
<td>Human Physiology I</td>
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<tr>
<td>PPRA 0341</td>
<td>Introductory Practice Experience I</td>
</tr>
<tr>
<td>BIOC 0351</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>PSCI 0360</td>
<td>Pharmacy Calculations</td>
</tr>
<tr>
<td>PPRA 0381</td>
<td>Health Care Systems</td>
</tr>
<tr>
<td>CORE 1399</td>
<td>Health Care Issues</td>
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<tr>
<td>Electives</td>
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#### Winter Quarter

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MICR 0300</td>
<td>Immunology/Biologics</td>
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<tr>
<td>PHYS 0302</td>
<td>Human Physiology II</td>
</tr>
<tr>
<td>BIOC 0352</td>
<td>Biochemistry II</td>
</tr>
<tr>
<td>PSCI 0362</td>
<td>Dosage Forum Design</td>
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<td>PSCI 0392</td>
<td>Dosage Form Lab</td>
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<td>PPRA 0342</td>
<td>Introductory Practice Experience II</td>
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<td>PPRA 0352</td>
<td>Introductory Practice Experience II</td>
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<td>Rotation (1/2 of class only)</td>
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<td></td>
<td>Electives, if not in IPE II Rotation</td>
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#### Spring Quarter

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<th>Course</th>
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<td>MICR 0310</td>
<td>Infectious Diseases and Their Etiologic Agents</td>
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<td>Introductory Practice Experience II</td>
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<td>Rotation (1/2 of class only)</td>
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### Second Professional Year

#### Fall Quarter

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PSCI 0353</td>
<td>Introduction to Drug Structure</td>
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<td>Evaluation</td>
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<tr>
<td>PPRA 0363</td>
<td>Biopharmaceutics</td>
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<tr>
<td>PPRA 0343</td>
<td>Introduction to Drug Literature</td>
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<tr>
<td>PPRA 0383</td>
<td>Pharmacotherapeutics I</td>
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<td>Electives, if not in IPE II Rotation</td>
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#### Winter Quarter

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<tr>
<td>PSCI 0451</td>
<td>Medicinal Chemistry I</td>
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<td>PHAR 0461</td>
<td>Pharmacology I</td>
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<td>PPRA 0441</td>
<td>Applied Pharmaceutical Care I with Lab</td>
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<td>PPRA 0491</td>
<td>Pharmacotherapeutics II</td>
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#### Spring Quarter

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<th>Quarter Hours</th>
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<tbody>
<tr>
<td>PSCI 0452</td>
<td>Medicinal Chemistry II</td>
</tr>
<tr>
<td>PHAR 0462</td>
<td>Pharmacology II</td>
</tr>
<tr>
<td>PPRA 0442</td>
<td>Applied Pharmaceutical Care II with Lab</td>
</tr>
<tr>
<td>PPRA 0492</td>
<td>Pharmacotherapeutics III</td>
</tr>
<tr>
<td>PPRA 0432</td>
<td>Research Methods and Drug Literature</td>
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<td>Evaluation</td>
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### Third Professional Year

#### Summer Quarter (Only for AGO students entering Fall 2006 or previously)

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PPRA 0686-0687</td>
<td>Advanced Pharmacy Practice</td>
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#### Fall Quarter

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>PPRA 0571</td>
<td>Quality Assurance and Effective Pharmacy Practice</td>
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<tr>
<td>PPRA 0581</td>
<td>Pharmacotherapeutics V</td>
</tr>
<tr>
<td>PPRA 0443</td>
<td>Introductory Pharmacy Practice</td>
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<tr>
<td></td>
<td>Experience III Rotation (for 1/2 of non-AGO students only)</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
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</table>

74
Winter Quarter
Course Quarter Hours
PPRA 0443 Introductory Practice Experience III 1
PPRA 0572 Pharmacy Law/Ethics 3
PPRA 0592 Clinical Pharmacokinetics 3
PPRA 1551 Pharmacy Management 4
Electives 1.7
Total: 12-18

Spring Quarter
Course Quarter Hours
PPRA 0685-0690 Advanced Pharmacy Practice 18
PPRA 0692 Pharm.D. Seminar 0

Fourth Professional Year
Summer Quarter (Only for AGO students entering Fall 2006 or previously)
Course Quarter Hours
PPRA 0685-0690 Advanced Pharmacy Practice 18
PPRA 0692 Pharm.D. Seminar 0

Fall and Winter Quarters
Course Quarter Hours
PPRA 0685-0690 Advanced Pharmacy Practice 36
PPRA 0692 Pharm.D. Seminar 2
Total: 38

Students will be required to complete six rotations during the spring PS-3 quarter, summer, fall, and winter PS-4 year. Students will select six rotation blocks out of the eight rotation blocks available.

REVISED ENTRY-LEVEL PHARM.D. CURRICULUM
The following curriculum applies to all students who matriculate in Fall 2008 or thereafter. The College reserves the right to alter the curriculum as it deems appropriate.

First Professional Year
Fall Quarter
Course Quarter Hours
PHYS 0301 Human Physiology I 4.5
PPRA 1351 Introduction to Pharmacy Practice 3
BIOC 0351 Biochemistry I 3.5
PSCI 1361 Pharmacy Calculations 3
PPRA 1381 Health Care Systems 3
CORE 1399 Health Care Issues 1
Total: 18

Winter Quarter
Course Quarter Hours
PHYS 0302 Human Physiology II 4.5

BIOC 0352 Biochemistry II 4.5
MICR 0300 Immunology/Biologics 2
PSCI 1362 Pharmaceutics I: Physical Pharmacy and Dosage Form Design 2
PSCI 1392 Dosage Form Lab 1
PPRA 1352 Introductory Practice Experience I-Community 3
PPRA 1332 Health Care Communications I 1
Total: 18

Spring Quarter
Course Quarter Hours
MICR 0310 Infectious Diseases and Their Etiologic Agents 4
PSCI 1363 Pharmaceutics II: Drug Delivery and Pharmacokinetics 4
PPRA 1343 Principles of Evidence-Based Pharmacy Practice 4
PPRA 1323 Introductory Pharmacy Practice Experience-Longitudinal I 1.5
Electives 1-3
Total: 14.5-17.5

Second Professional Year
Fall Quarter
Course Quarter Hours
PSCI 1431 Introduction to Drug Structure Evaluation 2
PHAR 0461 Pharmacology I 4
PPRA 1471 Pharmacotherapeutics I 5
PPRA 1441 Applied Pharmaceutical Care I with Lab 3
PPRA 1421 Introductory Pharmacy Practice Experience-Longitudinal II 0.5
Electives 0-3
Total: 14.5-17.5

Winter Quarter
Course Quarter Hours
PSCI 1452 Chemical Principles of Drug Action I 4.5
PHAR 0462 Pharmacology II 4
PPRA 1472 Pharmacotherapeutics II 5
PPRA 1452 Introductory Pharmacy Practice Experience II-Hospital (1/2 class) 2
PPRA 1422 Introductory Pharmacy Practice Experience-Longitudinal III 0.5
PPRA 1482 Clinical Pharmacokinetics 3
Total: 17-19

Spring Quarter
Course Quarter Hours
PSCI 1453 Chemical Principles of Drug Action II 4
PHAR 0463 Pharmacology III 2
PPRA 1473 Pharmacotherapeutics III 5.5
PPRA 1452 Introductory Pharmacy Practice Experience II-Hospital (1/2 class) 2
PPRA 1423 Introductory Pharmacy Practice Experience-Longitudinal IV Electives 0-5
Total: 13-18
## Third Professional Year

### Fall Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>PPRA 1571 Pharmacotherapeutics IV</td>
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<tr>
<td>PPRA 1551 Pharmacy Management</td>
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<td>PPRA 1531 Health Care Communications II</td>
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<td>PPRA 1552 Introductory Pharmacy Practice</td>
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<tr>
<td>PSCI 1551 Chemical Principles of Drug Action III</td>
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### Winter Quarter

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<th>Course</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>PPRA 1572 Pharmacotherapeutics V</td>
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<tr>
<td>PSCI 1522 Pharmaceutical Biotechnology</td>
<td>2</td>
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<td>PSCI 1552 Chemical Principles of Drug Action IV</td>
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<td>PPRA 1552 Introductory Pharmacy Practice</td>
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<tr>
<td>PPRA 1542 APC II w/lab</td>
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### Spring Quarter

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<tbody>
<tr>
<td>PPRA 1573 Pharmacotherapeutics VI</td>
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<tr>
<td>PPRA 1563 Quality Assurance</td>
<td>3</td>
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<tr>
<td>PPRA 1553 Pharmacy Law</td>
<td>3</td>
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<tr>
<td>PPRA 1552 Introductory Pharmacy Practice</td>
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<td>Electives</td>
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<tr>
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## Fourth Professional Year

### Summer-Spring Quarters

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<tr>
<th>Course</th>
<th>Quarter Hours</th>
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<tbody>
<tr>
<td>PPRA 1685 Elective Advanced Pharmacy Practice Experience</td>
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<tr>
<td>PPRA 1686 Community Advanced Pharmacy Practice Experience</td>
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<tr>
<td>PPRA 1687 Institutional Advanced Pharmacy Practice Experience</td>
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<tr>
<td>PPRA 1688 Acute Care Advanced Pharmacy Practice Experience</td>
<td>9</td>
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<tr>
<td>PPRA 1689 Chronic Care Advanced Pharmacy Practice Experience</td>
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<tr>
<td>PPRA 1690 Clinical Advanced Pharmacy Practice Experience</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

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

### Professional Electives

During their four years of study at CCP, students complete a minimum total of 16 hours of elective credit. Their elective options may include the following:

**Biochemistry**

- BIOL 0645 Principles and Practices of Enteral and Parenteral Nutrition, 1 qhr

**Microbiology**

- MICR 0604 Agents of Biological and Chemical Warfare and Terrorism, 2 qhrs

**Pharmacology**

- PHAR 0415 Medical Spanish, 2 qhrs
- PHAR 0417 Cardiovascular Pharmacotherapy, 2 qhrs
- PHAR 0534 Pharmacologic Aspects of Drug Abuse, 2 qhrs

**Pharmacy Practice**

- PPRA 0499 Special Project or Research, 1-3 qhrs
- PPRA 0501 Community Service, 1 qhr
- PPRA 0503 Current Hemotology Topics, 1 qhr
- PPRA 0504 Advanced Internal Medicine, 2 qhrs
- PPRA 0505 Advanced Internal Medicine Practicum, 1 qhr
- PPRA 0511 Veterinary Pharmacy, 2 qhrs
- PPRA 0515 Introduction to Teaching and Learning Issues, 1 qhr
- PPRA 0516 Pediatric Pharmacotherapy, 2 qhrs
- PPRA 0518 Landmark Trials in Primary Care, 2 qhrs
- PPRA 0519 Advanced Psychiatric Pharmacy, 2 qhrs
- PPRA 0520 Advanced Cardiology Topics, 2 qhrs
- PPRA 0522 Geriatric Patient Care, 2 qhrs
- PPRA 0523 Practical Applications of Women’s Health Issues, 2 qhrs
- PPRA 0525 Advanced Clinical Diabetes Management, 1 qhr
- PPRA 0531 End-of-Life Care, 2 qhrs
- PPRA 0533 Introduction to American Sign Language, 1 qhr
- PPRA 0534 Introduction to Nuclear Pharmacy, 1 qhr
- PPRA 0573 Oncology Therapeutics, 2 qhrs
- PPRA 0580 Medication Management in Primary and Secondary Schools, 2 qhrs
- PPRA 0583 Tobacco Cessation, 1 qhr
- PPRA 0584 Spirituality and Health, 1 qhr
- PPRA 0585 Topics in Career Management, 2 qhrs
- PPRA 0586 Pharmacogenomics in Pharmacy Practice, 2 qhrs
- PPRA 0587 Advanced Over the Counter Medications, 1 qhr
- PPRA 0650 Therapeutic Issues in Critical Care, 2 qhrs
- PPRA 0655 Home Infusion Therapy, 2 qhrs
- PPRA 0698 Advanced Physical Assessment, 2 qhrs

**Pharmaceutical Sciences**

- PSCI 0499 Special Project or Research, 1-3 qhrs
- PSCI 0501 Community Service, 1 qhr
- PSCI 0556 Pharmaceuticals and Personal Care Products in the Environment, 1 qhr
- PSCI 0557 Alternative Therapies and Natural Products, 3 qhrs
- PSCI 0564 Contemporary Compounding, 3 qhrs
- PSCI 0567 Advanced Topics in Medicinal Chemistry, 1 qhr
- PSCI 0568 Biotechnology, 2 qhrs
Pharmacy Practice Experiences in the Entry-Level Degree Program

All students who matriculated into the program in or prior to Fall 2007 must successfully complete six credit hours of introductory pharmacy practice experience (IPPE) during the first and third professional years. These must be completed in the areas of community, hospital, and clinical settings.

All students who matriculated into the program in Fall 2008 or thereafter must successfully complete twelve credit hours of introductory pharmacy practice experience (IPPE) during the first, second, and third professional years. These must be completed in the areas of community, hospital, and clinical settings.

In addition, students must complete six full-time advanced pharmacy practice experiences (APPE) during their third and fourth professional years including rotations in advanced community pharmacy, advanced institutional pharmacy, chronic care, acute care, clinical, and one elective. APPEs build on the foundation through completion of competency-based objectives and demonstration of proficiency in general pharmaceutical skills. Emphasis is placed on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings.

DEPARTMENTS

Department of Pharmaceutical Sciences

The Department of Pharmaceutical Sciences subsumes three specialty areas: pharmaceutics, 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 hybridization 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 undergraduate student with a firm basis for his/her 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 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 a professional practice laboratory that emphasizes communication skills, prescription processing, and pharmaceutical 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.

CORE COURSE DESCRIPTIONS

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description it is implied that there is no prerequisite.

BIOC 0351 Biochemistry I

This course combines lectures and small group discussions of clinical case studies in workshops. Lectures address structure-function relationships in major biomolecules, human metabolism, and cell biology. Workshops feature clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy. Workshop topics may include anemias, cytochrome p450 enzymes, dangers of dietary supplements, diabetes mellitus, drug biomembrane transport, environmental toxins and hemostasis disorders.

3.5 credits
Prerequisite: PS-I standing

BIOC 0352 Biochemistry II

This course combines lectures and small group discussions of clinical case studies in workshops. Lectures address human metabolic profiles of major tissues and organs, principles of gene expression, chromosomal abnormalities, multifactorial inheritance, and nutrition. Workshops feature clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy. Workshop topics may include antimitabolite therapy, kidney disease, hormone replacement therapy, hepatotoxicity and metabolic effects of drugs, genome/environmental toxins, hyperlipidemias, and drug-induced jaundice.

4.5 credits
Prerequisite: BIOC 0351
Changes in our health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The various roles health care professionals play on a medical team will be introduced to the students using practitioner-patient demonstrations utilizing a surrogate patient. Additional lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA) and the concept of biomedical research.

1 credit

MICR 0300 Introductory Immunology/Biologics
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.
2 credits
Prerequisite: BIOC 0351 Biochemistry I

MICR 0310 Infectious Diseases and Their Etiologic Agents
This course is designed as an integrated didactic and self-study program with a laboratory component. A basic knowledge of clinical microbiology is provided so that students can understand the interaction between the host and pathogenic microorganisms. Emphases include the rational management, prevention, and control of infectious diseases.
4 credits
Prerequisite: MICR 0300 Introductory Immunology/Biologics

PHAR 0461, 0462, 0463 Pharmacology I, II, III
Pharmacology studies the properties and effects of drugs and, in a more general sense, the interactions between chemical compounds and living systems. This series includes the general principles of pharmacology; the dynamics of absorption, distribution, metabolism, and elimination of drugs; drug testing in humans; and the role of official regulatory agencies. The student studies drugs affecting the autonomic nervous system; drugs acting on the central nervous system; cardiovascular drugs; chemotherapy of microbial, parasitic, and neoplastic diseases; drugs acting on blood and blood forming organs; and hormone and hormone antagonists. Topics such as principles of toxicology, vitamins, gastric antacids, digestants, laxatives, antihistamines, antiserotonin agents, and drugs causing birth defects are included.
Spring Quarter
Prerequisite for Pharmacology I, 4 credits: PS-II standing
Prerequisite for Pharmacology II, 4 credits: PHAR 0461 Pharmacology I
Prerequisite for Pharmacology III, 2 credits: PHAR 0462 Pharmacology II

PHYS 0301 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, respiratory, 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.
4.5 credits
Prerequisite: PS-I standing

PHYS 0302 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 renal, 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.
4.5 credits
Prerequisite: PS-I standing

PPRA 0341 Introductory Practice Experience I
This course introduces the student to the philosophy and practice of the profession of pharmacy through didactic lectures and structured early professional experience in the community setting. Students will be introduced to the basics of community pharmacy practice. Students will discover the evolution of pharmacy as a profession, current career opportunities and topical issues within the profession today. Students are introduced to the practical aspects of community pharmacy practice through interactive colloquia sessions and structured visits to an assigned community pharmacy site. This course serves as a foundation for later APPEs.
2 credits

PPRA 0342 Introductory Practice Experience II Lecture
This course introduces the student to the philosophy and practice of the profession of pharmacy through didactic lectures. Students will be introduced to the basics of hospital pharmacy practice. Students will discover the evolution of pharmacy as a profession, current career opportunities and topical issues within the profession today. This course serves as a foundation for later APPEs.
1 credit

PPRA 0343 Introduction to Drug Literature
This course introduces students to different types of literature (tertiary, secondary, and primary) that are used in the
practice of pharmacy and in the provision of pharmaceutical care. Study designs and descriptive and inferential statistical tests used in published research will also be discussed. Exercises will focus on information retrieval techniques, evaluation of tertiary and secondary references, and application of the systematic approach to answering drug information questions.

2 credits
Prerequisite: PS-I standing

PPRA 0352 Introductory Practice Experience II Rotation
This course introduces the student to the practical aspects of hospital pharmacy practice through interactive colloquia sessions and structured visits to an assigned hospital site. Students will be introduced to the basics of hospital pharmacy practice. Students will discover the evolution of pharmacy as a profession, current career opportunities and topical issues within the profession today. This course serves as a foundation for later APPEs.
1 credit
Prerequisite: Completion of or concurrent enrollment in PPRA 0342 Introductory Practice Experience II Lecture

PPRA 0381 Health Care Systems
This course describes various elements and forces affecting the organization, delivery, and financing of health care services in general and pharmacy services in particular. The course explores major economic/political/social aspects of the health care delivery system and examines how provider relationships often affect patient outcomes. Strengths and weaknesses of the system, including possible options for mitigating the latter, are identified. The course describes changing roles of pharmacy practice and methods of financing and shows how professional services may influence and be influenced by these factors.
3 credits
Prerequisite: PS-I standing

PPRA 0383 Pharmacotherapeutics I
This five-quarter sequence emphasizes the application of pharmaceutical care as it pertains to rational drug product selection (nonprescription and prescription drugs), drug and disease state evaluation and monitoring, and the development of patient care plans. Workshop sessions are used to apply problem-solving strategies to realistic patient cases. Topics include preventative medicine, self-limiting diseases with a focus on over-the-counter medications, gastrointestinal diseases, and women’s health issues.
5 credits

PPRA 0423 Health Care Communications
This course focuses on the integration and application of pharmaceutical care principles, pharmaceutical knowledge and professional techniques to enhance communication, medication adherence and minimize medication errors. Students will learn interactive communication skills, motivational interviewing techniques, assertiveness, empathy and active listening. These skills require the basic understanding of the needs and motivations of those with whom pharmacists typically interact, such as patients, caregivers, physicians, and other healthcare professionals.
3 credits
Prerequisite: PPRA 0442 Applied Pharmaceutical Care II, and PPRA 0383, 0491, and 0492 Pharmacotherapeutics I-III

PPRA 0432 Research Methods and Drug Literature Evaluation
This course introduces students to the role of research in the discovery of knowledge, with an emphasis on medication use and pharmacy. Emphasis is placed on critical thinking and problem solving skills necessary to ask and address research questions, critically evaluate the medical literature, and resolve issues regarding medication use. Individual and group activities will focus on analysis of the literature, application of problem solving, and practice of verbal and written communication skills.
4 credits
Prerequisite: PS-II standing

PPRA 0433 Introductory Practice Experience III Lecture
This course introduces the student to practical application principles in clinical pharmacy through didactic lectures. Lectures and in-class exercises will be used to reinforce the fundamentals of clinical practice presented to the student throughout the curriculum and serve as a foundation for later APPEs.
1 credit
Prerequisite: PS-II standing

PPRA 0441, 0442 Applied Pharmaceutical Care with Laboratory I, II
This two-course sequence focuses on the application of pharmaceutical care principles, pharmaceutical knowledge, and professional techniques to solve prescription problems. Its primary emphasis includes patient and interpersonal communications, the dispensing of prescriptions, the use of computers, patient profile review, parenteral products, intravenous admixture preparation, and experience in detecting medication errors and omissions. This course sequence allows the integration of previously presented course materials into pharmacy practice situations in laboratory and workshop sessions.
Prerequisites for APC I, 3 credits: Completion of or concurrent enrollment in PPRA 0491 Pharmacotherapeutics II
Prerequisites for APC II, 3 credits: Completion of or concurrent enrollment in PPRA 0492 Pharmacotherapeutics III
**PPRA 0443 Introductory Practice Experience III Rotation**
This course introduces the student to the principles in clinical pharmacy through practical experiences and workshops. Site visits to various hospitals and chronic care sites will allow the student to experience and apply the lessons learned in the complementary didactic course. Site visits and workshops will be used to reinforce the fundamentals of clinical practice presented to the student in IPE-III and throughout the curriculum and serve as a foundation for later APPEs.

1 credit
Prerequisite: Completion of or concurrent enrollment in PPRA 0433 Introductory Practice Experience III Lecture

**PPRA 0491 Pharmacotherapeutics II**
This 5-quarter sequence emphasizes the application of pharmaceutical care as it pertains to rational drug product selection (nonprescription and prescription drugs), drug and disease state evaluation and monitoring, and the development of patient care plans. Workshop sessions are used to apply problem-solving strategies to realistic patient cases. Topics include fluid and electrolyte balance, renal disease, neurological disease, asthma, and diabetes.
5 credits
Prerequisite: PPRA 0383 Pharmacotherapeutics I

**PPRA 0492 Pharmacotherapeutics III**
This 5-quarter sequence emphasizes the application of pharmaceutical care as it pertains to rational drug product selection (nonprescription and prescription drugs), drug and disease state evaluation and monitoring, and the development of patient care plans. Workshop sessions are used to apply problem-solving strategies to realistic patient cases. Topics in the third course focus on cardiovascular diseases.
4 credits
Prerequisite: PS-II standing

**PPRA 0493 Pharmacotherapeutics IV**
This 5-quarter sequence emphasizes the application of pharmaceutical care as it pertains to rational drug product selection (nonprescription and prescription drugs), drug and disease state evaluation and monitoring, and the development of patient care plans. Workshop sessions are used to apply problem-solving strategies to realistic patient cases. Topics in the fourth course include infectious diseases and critical care.
5 credits
Prerequisites: PS-II standing

**PPRA 0571 Quality Assurance and Effective Pharmacy Practice**
This course encourages students to strive for professional excellence by explaining the nature of quality assurance in health care. The course explores several models of pharmacy practice that students can use to assure the quality of drug therapy. The origin, nature, intent, and usefulness of practice guidelines are addressed. The course describes the links among the infrastructure that pharmacists need, the functions that pharmacists perform, and drug therapy outcomes of all types. Topics are structured for practical use in pharmacy settings. Barriers to effective practice are elucidated and strategies to cope with such barriers are presented.
3 credits
Prerequisite: PS-III standing

**PPRA 0572 Pharmacy Law/Ethics**
The basic principles of law are reviewed as they relate to the practice of pharmacy under federal, state, and local regulations. The special problems involving the control of narcotics, poisons, and other controlled substances are reviewed. Some laws relative to business activities and discussions of professional ethics are also included.
3 credits
Prerequisite: PS-III standing

**PPRA 0581 Pharmacotherapeutics V**
This five-quarter sequence emphasizes the application of pharmaceutical care as it pertains to rational drug product selection (nonprescription and prescription drugs), drug and disease state evaluation and monitoring, and the development of patient care plans. Workshop sessions are used to apply problem-solving strategies to realistic patient cases. Topics in the fifth course include care of special patient populations, psychiatric disorders, headache, and oncology.
5 credits
Prerequisite: PS-III standing

**PPRA 0592 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 principles, which include effects of disease and drug-drug interactions on pharmacokinetic parameters; initial loading and maintenance dosage regimen calculations; dosage adjustment for linear and nonlinear drugs; effects of altered serum protein binding; effects of renal replacement therapy; interpretation of serum drug concentrations; and drug assay validity characteristics. Patient cases and problem sets will be used to give practice in the application of principles.
3 credits
Prerequisite: PS-III standing

**PPRA 0685 Pharm.D. Elective Advanced Pharmacy Practice Experience (APPE)**
Pharmacy students may select an additional APPE or choose from a selected list of non-patient care electives.
9 credits
PPRA 0686 Community Advanced Pharmacy Practice Experience (APPE)
Pharmacy students under the supervision of an adjunct faculty member will gain experience in community pharmacy and practice those skills necessary for the delivery of pharmaceutical care in the community pharmacy setting. The student will assess patient therapy, research and answer drug information questions, monitor clinical interventions, and develop and implement a health promotion program or activity at the site. The primary focus of the Advanced Community APPE is patient care. Students will also learn pharmacy based immunization delivery.
9 credits

PPRA 0687 Institutional Advanced Pharmacy Practice Experience (APPE)
Pharmacy students under the supervision of an adjunct clinical faculty will gain experience in institutional pharmacy including the areas of drug distribution systems, intravenous product preparation, and drug usage evaluation and practice management. The student will gain experience in assessing patient therapy, research and answer drug information questions, and monitor clinical interventions. This course builds upon the foundation provided in the introductory hospital pharmacy experience.
9 credits

PPRA 0688 Acute Care Advanced Pharmacy Practice Experience (APPE)
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations, and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team.
9 credits

PPRA 0689 Chronic Care Advanced Pharmacy Practice Experience (APPE)
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team.
9 credits

PPRA 0690 Clinical Advanced Pharmacy Practice Experience (APPE)
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team.
9 credits

PPRA 0692 Pharm.D. Seminar
The purpose of this course is to provide to the student an opportunity to review key concepts to prepare them for their professional endeavors, such as board examinations, residencies, and first professional position. Material will include analyzing case presentations, use of top 200 drugs, statistical analysis, pharmaceutical calculations, public health issues, and other emerging topics relevant to contemporary practice.
2 credits

PPRA 1323, 1421, 1422, 1423 Introductory Pharmacy Practice Experience Longitudinal I, II, III, IV
In the Introductory Pharmacy Practice Experience Longitudinal, the student participates in the longitudinal care of four patients over the four quarter sequence. Emphasis will be placed on the changing needs of the patients and insuring continuity of care. The student will learn to effectively communicate with the patient and other health care providers while collecting relevant health care information about the patient. The student will develop affective components necessary to become a caring pharmacist.
PPRA 1323 Introductory Pharmacy Practice Experience Longitudinal I, 1.5 credits
PPRA 1421 Introductory Pharmacy Practice Experience Longitudinal II, 0.5 credits
PPRA 1422 Introductory Pharmacy Practice Experience Longitudinal III, 0.5 credits
PPRA 1423 Introductory Pharmacy Practice Experience Longitudinal IV, 1.5 credits

PPRA 1332 Health Care Communications I
This course will introduce first year 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. Cross listed with FMED 1500 Patient-Physician Dialogue.
1 credit
Prerequisite: PS-I Standing
**PPRA 1343 Principles of Evidence-Based Pharmacy Practice**
This course introduces students to the knowledge and skills necessary to construct sound pharmacotherapeutic recommendations thorough retrieval and evaluation of best available clinical evidence. It focuses on developing an efficient approach to identifying relevant information to respond to drug information inquiries and patient care needs; and developing primary literature evaluation and critical thinking skills so that students can use evidence to formulate prudent drug information responses and patient care recommendations. Individual and group activities will include literature searching, literature evaluation, application of problem solving skills, and practice of verbal and written communication skills.
4 credits
Prerequisite: PS-I standing

**PPRA 1351 Introduction to Pharmacy Practice**
This course introduces the student to the philosophy, socialization, and practice of the profession of pharmacy through didactic lectures. Students will learn the history and evolution of pharmacy as a profession, various career opportunities, and relevant issues within the profession today.
3 credit hours
Prerequisite: PS-I standing

**PPRA 1352 Introduction to Pharmacy Practice Experience I: Community (IPPE-I)**
This course introduces the student to the philosophy, socialization, and practice of the profession of pharmacy through experiences in a community pharmacy practice environment. This course will meet for a weekly eight hour site visit to an assigned community pharmacy for an introductory pharmacy practice experience. Guided exercises in the community practice environment will introduce the student to the basics of practice and serve as a foundation for advanced pharmacy practice experiences.
3 credits
Prerequisite: PPRA 1351 Introduction to Pharmacy Practice

**PPRA 1381 Health Care Systems**
This course describes various elements and forces affecting the organization, delivery, and financing of health care services in general and pharmacy services in particular. The course explores major economic/political/social aspects of the health care delivery system and examines how provider relationships often affect patient outcomes. Strengths and weaknesses of the system, including possible options for mitigating the latter, are identified. The course describes changing roles of pharmacy practice and methods of financing and shows how professional services may influence and be influenced by these factors.
3 credits
Prerequisite: PS-I standing

**PPRA 1441, 1542 Applied Pharmaceutical Care with Laboratory I, II**
This two-course sequence focuses on the application of pharmaceutical care principles, pharmaceutical knowledge, and professional techniques to solve prescription problems. Its primary emphasis includes patient and interpersonal communications, the dispensing of prescriptions, the use of computers, patient profile review, parenteral products, intravenous admixture preparation, and experience in detecting medication errors and omissions. This course sequence allows the integration of previously presented course materials into pharmacy practice situations in laboratory and workshop sessions.
Prerequisites for APC I, 3 credits: PS-II standing
Prerequisites for APC II, 3 credits: PS-III standing

**PPRA 1452 Introductory Pharmacy Practice Experience II-Hospital (IPPE-II)**
Students will explore the philosophy and practice of hospital pharmacy through didactic lectures, workshop assignments and on site experience at an assigned practice site under the guidance of a preceptor. Students will be introduced to technical pharmacy skills, hospital pharmacy management, distributive systems, quality assurance and the role of the pharmacist in the health care team. Students will explore career options within health care systems.
2 credits
Prerequisite: PS-II standing

**PPRA 1471, 1472, 1473, 1571, 1572, 1573 Pharmacotherapeutics I, II, III, IV, V, VI**
Pharmacotherapeutics is a required course sequence of six courses offered in the second and third professional years. It emphasizes the principles of pharmacotherapy as they relate to rational drug product selection, drug and disease state evaluation and monitoring, and the development of a patient care plan. Each course includes lectures as well as workshop sessions in which the student groups are guided by a faculty facilitator to apply problem-solving strategies and evidence-based medicine to realistic patient cases, and to develop patient care plans.
Prerequisites for Pharmacotherapeutics I, 5 credits: PS-II Standing
Prerequisite for Pharmacotherapeutics II, 5 credits: PS-II standing, PPRA 1471 Pharmacotherapeutics I and PHAR 0461 Pharmacology, Concurrent enrollment in or prior completion of PHAR 0462 Pharmacology II, PPRA 1482 Clinical Pharmacokinetics, PSCI 1452 Chemical Aspects of Drug Action I
Prerequisite for Pharmacotherapeutics III, 5.5 credits: PS-II standing, PHAR 462 Pharmacology II, PPRA 1472 Pharmacotherapeutics II, PSCI 1452 Chemical Aspects of Drug Action I, Concurrent enrollment in or prior
PPRA 1482 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. Patient cases or problem sets will be distributed weekly and used to give practice in the application of principles. Workshops and quizzes will be conducted to assess the understanding of principles.
3 credits
Prerequisites: PSCI 1363 Pharmaceutics II; Drug Delivery and Pharmacokinetics

PPRA 1531 Health Care Communications II
This course represents a capstone communications course that focuses on the development of practical skills necessary for effective communication in the health care setting; adding an additional dimension to the students' foundational communication skills, via integration of therapeutic knowledge into their communication with patients, caregivers, and health care professionals. Students gain counseling proficiency on a variety of dosage forms across a range of therapeutic drug classes and experience communication with specific populations (based on age, culture and/or socioeconomic differences, heightened sensitivity, etc.) The students learn about behavior modification strategies and implementation of medication therapy management.
2 credits
Prerequisites: PS-III standing

PPRA 1551 Pharmacy Management
Pharmacists in all practice settings use a variety of management skills on a daily basis. This course introduces students to the role of management within pharmacy and exposes them to a variety of theories, techniques, and tools used by pharmacists to ensure that patient care is delivered in an effective and efficient manner.
4 credits

PPRA 1552 Introductory Pharmacy Practice Experience III: Clinical (IPPE-III)
This course provides students the opportunity to practice the principles and skills in clinical pharmacy through practical experiences, practice simulation, and workshops. Site visits to various hospitals and chronic care sites allow the students to experience and apply the lessons learned in the complimentary didactic courses in real practice environments.
3 credits
Prerequisites: PS-III standing, pharmacy technician or intern license, student is compliant with all immunization, drug screen, and background check requirements

PPRA 1553 Pharmacy Law/Ethics
The basic principles of law are reviewed as they relate to the practice of pharmacy under federal, state, and local regulations. The special problems involving the control of narcotics, poisons, and other controlled substances are reviewed. Some laws relative to business activities and discussions of professional ethics are also included.
3 credits
Prerequisite: PS-III standing

PPRA 1563 Quality Assurance and Effective Pharmacy Practice
This course encourages students to strive for professional excellence by explaining the nature of quality assurance in health care. The course explores several models of pharmacy practice that students can use to assure the quality of drug therapy. The origin, nature, intent, and usefulness of practice guidelines are addressed. The course describes the links among the infrastructure that pharmacists need, the functions that pharmacists perform, and drug therapy outcomes of all types. Topics are structured for practical use in pharmacy settings. Barriers to effective practice are elucidated and strategies to cope with such barriers are presented.
3 credits
Prerequisite: PS-III standing

PPRA 1685 Elective Advanced Pharmacy Practice Experience (APPE)
Pharmacy students may select an additional APPE or choose from a selected list of non-patient care electives.
9 credits
PPRA 1686 Community Advanced Pharmacy Practice Experience (APPE)
Pharmacy students under the supervision of an adjunct faculty member will gain experience in community pharmacy and practice those skills necessary for the delivery of pharmaceutical care in the community pharmacy setting. The student will assess patient therapy, research and answer drug information questions, monitor clinical interventions, and develop and implement a health promotion program or activity at the site. The primary focus of the Advanced Community APPE is patient care. Students will also learn pharmacy based immunization delivery. 9 credits

PPRA 1687 Institutional Advanced Pharmacy Practice Experience (APPE)
Pharmacy students under the supervision of an adjunct clinical faculty will gain experience in institutional pharmacy including the areas of drug distribution systems, intravenous product preparation, and drug usage evaluation and practice management. The student will gain experience in assessing patient therapy, research and answer drug information questions, and monitor clinical interventions. This course builds upon the foundation provided in the introductory hospital pharmacy experience. 9 credits

PPRA 1688 Acute Care Advanced Pharmacy Practice Experience (APPE)
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations, and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team. 9 credits

PPRA 1689 Chronic Care Advanced Pharmacy Practice Experience (APPE)
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team. 9 credits

PPRA 1690 Clinical Advanced Pharmacy Practice Experience
APPEs place emphasis on in-depth experience in the provision of pharmaceutical care in a variety of patient care settings. The student, under the supervision of adjunct or full time clinical faculty, will participate in the drug use decision-making process, monitor outcomes of drug therapy in various patient populations and develop a philosophy of practice regarding the role of the pharmacist as a member of the health care team. 9 credits

PSCI 0353 Introduction to Drug Structure Evaluation
This course provides a review of the organic functional groups found in drug molecules and their properties. Heterocycles, amino acids and nucleic acids are introduced as structural components of several important classes of biomolecules. As part of the drug structure evaluation process the acid/base properties, binding interactions with a biological target for drug action, and metabolic transformations for each functional group are presented. 2 credits
Prerequisite: BIOC 0352 Biochemistry II

PSCI 0360 Pharmaceutical Calculations
This course provides an introduction to the practice of pharmacy with an emphasis on the mathematical calculations that are essential to compounding and dispensing drugs and that are commonly encountered in subsequent pharmacy courses. Introductions to pharmaceutical dosage forms and statistical principles are also included. 3 credits
Prerequisite: PS-I standing

PSCI 0362 Dosage Form Design
This course is centered on discussing the types and characteristics of pharmaceutical dosage forms and the physiochemical principles involved in design, development and formulation of dosage forms. The topics covered in this course include but are not limited to acids, bases, and buffers; solubility, dissolution, and distribution phenomena, preformulation considerations, solid dosage forms, liquid dosage forms, semisolid dosage forms, ophthalmic preparations, aerosols, suppositories, parenteral products, modified release dosage forms, and novel delivery systems. 3 credits
Prerequisite: PSCI 0360 Pharmaceutical Calculations

PSCI 0363 Biopharmaceutics
This course discusses biopharmaceutic and basic pharmacokinetic parameters, which include mathematical descriptions of the time course of drug absorption, distribution, and elimination; the important physicochemical properties of drugs and the relevant physiologic factors that
affect drug absorption, distribution, and elimination; the relationship between drug concentration and clinical responses, the pharmacokinetic variability caused by differences in body weight, age, sex, genetic factors, diseases, and drug interactions; and applications of pharmacokinetics to clinical situations.

3 credits
Prerequisite: PSCI 0362 Dosage Form Design

PSCI 0392 Dosage Form Laboratory
This course is centered on preparation of dosage forms, which are compounded extemporaneously in a pharmacy setting. Laboratory exercises will be utilized to familiarize the student with all aspects of compounded prescription preparation, from legal requirements to preservation of the completed dosage form.

1 credit
Prerequisite: PSCI 0360 Pharmaceutical Calculations

PSCI 0451, 0452, 0453 Medicinal Chemistry I, II, and III
This course sequence discusses the concepts of drug-receptor interactions and structure-activity relationships for all the major classes of drugs. The classification of the mechanisms of action are based on messenger receptors, enzyme binding sites, nucleic acid targets, and other biopolymers. The principle routes of metabolism are also discussed, in addition to approaches to predicting drug interactions. Examples of drug action in the cardiovascular, autonomic nervous, central nervous, endocrine, and immune systems are discussed, as well as anti-infectives, antineoplastics, and the impact of biotechnology on drug design.

Prerequisites for Medicinal Chemistry I, 4 credits:
Completion of or concurrent enrollment in PHAR 0461 Pharmacology I and PPRA 0491 Pharmacotherapeutics II
Prerequisites for Medicinal Chemistry II, 3 credits: PSCI 0451 Medicinal Chemistry I, completion of or concurrent enrollment in PHAR 0462 Pharmacology II and PPRA 0492 Pharmacotherapeutics III
Prerequisites for Medicinal Chemistry III, 2 credits: PSCI 0452 Medicinal Chemistry II, completion of or concurrent enrollment in PHAR 0463 Pharmacology III or PPRA 0493 Pharmacotherapeutics IV

PSCI 1361 Pharmaceutical Calculations
This course provides an introduction to the practice of pharmacy with an emphasis on the mathematical calculations that are essential to compounding and dispensing drugs and that are commonly encountered in subsequent pharmacy courses. Introductions to pharmaceutical dosage forms and statistical principles are also included.

3 credits
Prerequisite: PS-I standing

PSCI 1362 Pharmaceuticals I: Physical Pharmacy and Dosage Form Design
This course discusses the types and characteristics of pharmaceutical dosage forms and the physicochemical principles involved in design, development and formulation of traditional dosage forms. Topics include but are not limited to acids, bases, and buffers; solubility, dissolution, and distribution phenomena, preformulation considerations, solid dosage forms, liquid dosage forms, semisolid dosage forms, suppositories, ophthalmic dosage forms, and injectable products.

2 credits

PSCI 1363 Pharmaceuticals II: Drug Delivery and Pharmacokinetics
This course discusses nontraditional dosage forms, biopharmaceutics, and basic pharmacokinetic parameters. Topics include: nasal and pulmonary dosage forms; modified release products (oral, injectable, implantable, and transdermal); biotechnology-derived products; mathematical descriptions of the time course of drug absorption, distribution, and elimination; the important physicochemical properties of drugs and the relevant physiologic factors that affect drug absorption, distribution, metabolism, and excretion; the relationship between drug concentration and clinical responses; the 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.

4 credits
Prerequisite: PSCI 1362 Pharmaceuticals I

PSCI 1392 Dosage Form Laboratory
This course is centered on preparation of dosage forms, which are compounded extemporaneously in a pharmacy setting. Laboratory exercises will be utilized to familiarize the student with all aspects of compounded prescription preparation, from legal requirements to preservation of the completed dosage form.

1 credit
Prerequisite: PSCI 1361 Pharmaceutical Calculations

PSCI 1431 Introduction to Drug Structure Evaluation
This course provides a review of the organic functional groups found in drug molecules and their properties. Heterocycles, essential amino acids and nucleic acids are introduced as structural components of several important classes of biomolecules and/or biological target for drug action (e.g. receptor, enzyme, nucleic acid, excitable membrane/other biopolymer). 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.
2 credits
Prerequisite: PS-II Standing

PSCI 1452, 1453, 1551, 1552 Chemical Principles of Drug Action I, II, III, IV
Concepts of drug-target interactions and structure activity relationships are discussed for all of the major classes of drugs. Classification is based on a drug’s mechanism of action at its biological target, e.g., messenger receptors, enzymes, nucleic acids, and excitable membranes or other biopolymers. Principle routes of drug metabolism, drug transport and the prediction of drug-drug, drug-disease, drug-herb and drug-food interactions based on each drug’s chemical properties are also discussed. Examples of drug action in the central nervous system, autonomic nervous system, cardiovascular system, endocrine system, and immune system are discussed, as well as anti-infective agents, anti-neoplastic agents, and the impact of biotechnology on drug design.
Prerequisites for Chemical Principles of Drug Action I, 4.5 credits: Completion of PSCI 1431 Introduction To Drug Structure Evaluation and PHAR 0461 Pharmacology I, PS-II standing Concurrent enrollment in PHAR 0462 Pharmacology II
Prerequisite for Chemical Principles of Drug Action II, 4 credits: Completion of PSCI 1452 Chemical Principles of Drug Action I and PHAR 0462 Pharmacology II, PS-II standing
Prerequisite for Chemical Principles of Drug Action III, 2 credits: Completion of PSCI 1452 and 1453 Chemical Principles of Drug Action I and II and PHAR 0462 Pharmacology II, PS-III standing

PSCI 1522 Pharmaceutical Biotechnology
Biotechnology-derived products are increasingly being used to treat diabetes, various types of cancer, blood disorders, growth deficiencies, renal failure, infections, and multiple sclerosis. This course will provide an introduction to type of biotech products, from recombinant DNA and antisense technology to monoclonal antibodies. Background information related to production, storage, and handling will be discussed as they relate to analytical techniques, patient education and counseling, and therapeutic use. Other related topics include gene therapy, stem cell research, cloning, biopharming, pharmacogenomics, and the Human Genome Project.
2 credits
Prerequisite: PS-III Standing

**Elective Course Descriptions**

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description, it is implied that there is no prerequisite.

BIOC 0645 Principles and Practices of Enteral and Total Parenteral Nutrition
This course surveys the biochemical, metabolic, and nutritional sciences underlying the provision of nutritional support, and provides a basic introduction to the clinical practices involved in its implementation. During the course, students apply information provided in lectures to the provision of nutritional support in selected clinical case studies.
1 credit

BIOC 0647 Nutrition in Preventive Medicine
This module presents the student with current concepts relating diet to the incidence, etiology, pathogenesis, and prevention of three chronic diseases (cardiovascular disease, cancer, and osteoporosis).
1 credit
Prerequisite: Biochemistry 0351 Biochemistry I and 0352 Biochemistry II

MICR 0604 Agents of Biological and Chemical Warfare and Terrorism
The course is 20 hours of didactic lecture, but Web-based and video presentation is also used. Discussion sessions highlight the potential use of biological and chemical agents as agents of terrorism, when to suspect their use, signs and symptoms of each agent, the standard medical response to biological and chemical terrorism, and the factors involved in planning for and protecting against a biological and chemical weapons attack. In addition, historical and hypothetical case scenarios are also presented.
2 credits
Prerequisite: Microbiology 0310 Infectious Diseases and Their Etiologic Agents

PHAR 0415 Medical Spanish
This course provides the student with the vocabulary necessary to understand and converse in the fields of medicine and health care in Spanish. This course has been designed to aid the medical student in communicating with the Latino patient, understand cultural attitudes, which may impact on the required medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations by students. Critical learning skills that students will need to develop to accomplish the intended outcome are cooperative learning and effective group dynamic skills.
2 credits
Prerequisite: Two years of high school or college Spanish
PHAR 0417 Cardiovascular Pharmacology
Cardiovascular (CV) disease is a national health problem of major consequence. Its treatment is one of the principal problems facing modern medicine. This elective is designed to familiarize the student with the most significant of all CV diseases, i.e., atherosclerosis; and potential anti-atherosclerotic effectiveness and mechanisms of various CV drugs and non-drug forms of therapy. This course is offered with Pass/Fail grading only.
2 credits

PHAR 0534 Pharmacologic Aspects of Drug Abuse
Drug abuse and its associated medical and social problems have reached alarming proportions. For this reason, physicians and other health care professionals need to appreciate the various factors involved in the nonmedical use of drugs. This elective is designed to provide the student with an in-depth understanding of the pharmacology of the common drugs of abuse including alcohol, cocaine, stimulants, hallucinogens, and opioids. Particular emphasis is given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of drugs and to the development of drug tolerance and dependence. Current theories regarding the physiologic basis of drug-seeking behavior and the development of drug dependence are presented. In addition, various social, legal, and ethical aspects of the drug abuse problem are considered.
2 credits

PPRA 0499 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 PPRA or PSCI 0499 may be applied toward elective requirements for the Pharm.D. degree.
1 to 3 credits

PPRA 0501 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.
1 credit

PPRA 0503 Current Hematology Topics
This course will expand on the material covered in the core therapeutics curriculum in the area of hematology, as well as introduce new topics that are unable to be covered in the core curriculum. The lectures will use case examples and primary literature to apply principles of evidenced based medicine to the area of hematology. The emphasis will be on therapeutic interventions and drug induced hematologic disorders.
1 credit
Prerequisite: Prior completion of Pharmacotherapeutics III or permission of course director

PPRA 0504 Advanced Internal Medicine
This course will concentrate on issues related to the care of general internal medicine patients in an acute inpatient setting. Topics in the course will focus on the diagnosis, pharmacotherapy, and management of this specific patient population. New topics will be discussed and topics covered in core courses will be augmented.
2 credits
Prerequisites: PPRA 0383, 0491, 0492 and 0493 Pharmacotherapeutics I-IV

PPRA 0505 Advanced Internal Medicine Practicum
This course will allow for small group discussion and application of topics related to the care of general internal medicine patients in an acute inpatient setting. Topics in the course will be those taught in the Advanced Internal Medicine elective.
1 credit
Prerequisites: Concurrent enrollment in PPRA 0504 Advanced Internal Medicine and PPRA 0383, 0491, 0492 and 0493 Pharmacotherapeutics I-IV

PPRA 0511 Veterinary Pharmacy
This course provides a general overview of the issues related to pet care that may be encountered in community pharmacy, current guidelines regarding animal wellness, and background information necessary to develop a practice with a pharmacy focus.
2 credits

PPRA 0515 Introduction to Teaching and Learning Issues
Throughout their careers pharmacists are called upon to teach. Many pharmacists present continuing education talks, precept pharmacy students, and present community service seminars. To be effective at these tasks, it is essential for the pharmacist to have a good understanding of learning theory and basic tools for teaching. This course is designed to
introduce students to learning theory and basic tools for teaching. Students learn through practice. As new concepts are introduced, students will apply them in either homework assignments or in-class presentations.

1 credit
Prerequisite: PS-II or PS-III standing

**PPRA 0516 Pediatric Pharmacotherapy**
This elective concentrates on specific issues related to the treatment and care of pediatric patients. By following a mock patient from birth through his/her teen years, the elective is designed to introduce the students to common childhood illnesses and the treatments for these conditions, drug delivery systems used for pediatric patients, current controversies in pediatric care, and commonly used over-the-counter medications and alternative therapies utilized by pediatric patients. This course utilizes lectures, projects, and workshops to educate the student about pediatric issues.

2 credits
Prerequisite: PS-III standing

**PPRA 0518 Landmark Trials in Primary Care**
This elective course focuses on reviewing the clinical trial data that support therapeutic recommendations in primary care. The course critically evaluates landmark clinical trials, identifying rationale and/or inconsistencies with trial data and current therapeutic guidelines. The focus is on applying clinical trial data to patient cases to support therapeutic recommendations. Therapeutic topics include diabetes, stroke, hypertension, and heart failure.

2 credits
Prerequisite: PS-III standing

**PPRA 0519 Advanced Psychiatric Pharmacy**
This course is intended to provide pharmacy students with the opportunity to gain further insight into psychiatric disorders, as well as to learn more about selective psychiatric disorders. Pharmacologic and non-pharmacologic methods used to treat these diseases will be covered in class. Topics to be discussed in class include the psychiatric patient interview, personality disorders, pediatric psychiatry, geriatric psychiatry, premenstrual dysphoric disorder and premenstrual syndrome, and herbal therapies used in psychiatry. Viewing of psychiatric-related films and documentaries will also occur during the class.

2 credits
Prerequisite: PS-III standing

**PPRA 0520 Advanced Cardiology Topics**
This course provides pharmacy students an opportunity to learn about selective cardiovascular diagnoses and therapy, and cardiovascular diagnostic procedures. Lectures focus on the role of pharmacological agents in diagnostic and invasive cardiology procedures from basic concepts to a patient’s bedside. Active learning strategies are employed.

2 credits
Prerequisite: PS-II Standing, PPRA 0442 Applied Pharmaceutical Care II

**PPRA 0522 Geriatric Patient Care**
This elective concentrates on specific issues related to the treatment and care of geriatric patients. Both pharmacotherapeutic and socioeconomic principles are discussed. Emphasis is placed on general geriatric issues as well as on specialty areas. Topics discussed include delirium, dementia, incontinence, pain management, financial issues, hospice, and others. This course utilizes lectures, small group discussions, and case-based learning to educate the student about geriatric issues.

2 credits
Prerequisite: PS-III standing

**PPRA 0523 Practical Applications of Women’s Health Issues**
This elective concentrates on specific issues related to the optimal delivery of women’s health care. Topics covered include gender-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.

2 credits
Prerequisite: PS-II standing

**PPRA 0525 Advanced Clinical Diabetes Management**
This elective concentrates on specific issues related to the delivery of in-depth pharmaceutical care in an outpatient diabetes management (DM) program. The main emphasis is on the pharmacotherapeutic issues not covered in the general therapeutics course. Topics discussed include a review of the ADA treatment of comorbidities, treatment of DM in pregnancy, use of modern insulin combinations, initiation, and adjustment of insulin pumps, and future therapeutic strategies in DM. Lecture, small case-based discussions, and journal club participation are utilized.

1 credit
Prerequisite: PS-II Standing, PPRA 0442 Applied Pharmaceutical Care II

**PPRA 0531 End-of-Life Care**
This course covers end of life care from four different perspectives: managing the system, managing the patient, managing the caregiver, and managing attitudes and feelings. Pharmacotherapeutic aspects of death and dying are presented. The course is delivered via lecture and interactive discussion.

2 credits
Prerequisite: PS-II or PS-III standing
PPRA 0533Introduction to American Sign Language for Health Professionals
Students develop syntactic knowledge of American Sign Language and learn basic vocabulary and conversation skills that are frequently used by health care professionals. Students will also develop expressive and receptive finger spelling through class activities. Vital aspects of deaf culture are also discussed.
1 credit
Prerequisite: PPRA 0383 Pharmacotherapeutics I

PPRA 0534Introduction to Nuclear Pharmacy
This course exposes the pharmacy student to the many areas of nuclear pharmacy and nuclear medicine. During the course, the student is provided with the training fundamentals that nuclear pharmacists encounter.
1 credit

PPRA 0573Oncology Therapeutics
This course combines lectures and group discussions of the major oncology topics. Lectures will address the biology and pathophysiology of cancer and the rationales for the types of chemotherapy treatments. The importance of the pharmaceutical role of supportive care in cancer will also be discussed.
2 credits
Prerequisite: PS-III standing or completion of PPRA 0493 Pharmacotherapeutics IV and PPRA 0581 Pharmacotherapeutics V

PPRA 0580Medication Management in Primary and Secondary Schools
This course describes the process of medication management in schools including transfer, storage, administration, use, and disposal. It addresses five important related issues: documentation, delegation of medication management responsibility, liability concerns, therapeutic issues, and the availability of information needed to adequately perform medication management. It reviews medication management guidelines and relevant conceptual frameworks, including rational drug therapy and polycentric authority, and provides a summary of the empirical literature in this important area of drug therapy. It shows that pharmacy has been involved very little in this problem in the past, and specifies ways that individual pharmacists and pharmacies as well as the profession, can get involved in medication management in schools and improve the situation.
2 credits

PPRA 0583Tobacco 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, nicotine pharmacology and available tobacco cessation products.
1 credit
Prerequisite: PPRA 0383 Pharmacotherapeutics I

PPRA 0584Spirituality and Health
This course enables students to enhance their patient care skills by examining the relationship between spirituality and health. Students gain the knowledge essential to understand the role of spirituality and religion in health care. Students examine issues related to the interaction between spiritual outlook and compliance with medical treatment. Topics of emphasis include a review of the current empirical literature on the impact of spirituality and religion on medical health and psychological well-being, the role of spirituality in health care, review of different spiritual perspectives, the role of the hospital chaplain, and spiritual assessment. Expert guest presenters will lead discussions allowing the students to consider how belief systems affect the patient’s perception of health, necessary spiritual considerations in patient care and therapeutic dilemmas produced by spiritual beliefs.
1 credit
Prerequisite: PS-III standing

PPRA 0585Topics in Career Management
The goal of this course is to gain an awareness of a career as a process requiring planning, development, and management. Career-related topics will be presented and discussed, including how career-related discussions are affected by life stages, career self-assessment, best methods for job hunting according to Bolles, the curriculum vitae and cover letter, effective methods used during an interview process, and job-related benefits.
2 credits

PPRA 586Pharmacogenomics in Pharmacy Practice
The course represents the interface between pharmacogenetics and pharmacogenomics, two essential components for understanding the new direction of pharmacotherapeutics resulting from our understanding of the human genome. The course utilizes didactic lecture format as well as current literature and case based workshops to illustrate the role of pharmacogenomics in the optimal individualization of drug therapy. An organ system and molecular approach will be used to illustrate how pharmacogenomics influences drug metabolism, drug transport, and response in individuals and specific patient populations. Specific applications to current clinical practice will be emphasized and the ethical and societal impacts are discussed.
2 credits
Prerequisite: PS-III standing
**PPRA 0587 Advanced Over the Counter Medications**
The purpose of this course is to provide the student with the knowledge and skills necessary to assist in addressing the self-care needs of the patient. Emphasis will be placed on initial assessment of self-limited problems with home diagnostic kits and treatment utilizing non-prescription drugs and life style changes.

1 credit
Prerequisite: PS-II standing

**PPRA 0650 Therapeutic Issues in Critical Care**
In the critical care setting, pharmacists have a unique role within multidisciplinary medical teams through their expertise in pharmacotherapeutics, pharmacokinetics, and drug information. This module is designed to introduce students to selected 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 and lecture formats.

2 credits
Prerequisite: PS-III standing

**PPRA 0655 Home Infusion Therapy**
This course is designed as an introduction to home health care with an emphasis on the provision of infusion therapy to patients in their homes or other alternate sites. Sessions will be held in a discussion format and will explore the interdisciplinary care of patients prescribed outpatient parenteral therapies. Case studies will be used to illustrate key elements in the patient management process.

2 credits

**PPRA 0698 Advanced Physical Assessment**
This course is intended to reinforce and extend a student’s physical assessment skills. Student learning will be facilitated through an intermixing of lectures with hands-on training via workshops. Lectures focus on the rationale behind the physical assessment method and a description of the techniques employed and their place in practice (diagnosis and monitoring). Focus of the course will be in techniques used for drug therapy monitoring by pharmacists. Workshops will provide the student with the opportunity to practice and perfect physical assessment skills. Individual lecture and workshop sessions will be organized based upon organ systems and specific disease processes. Note: Students with personal or physical restrictions regarding disrobing should contact the course coordinator no later than the first session so alternative methods can be incorporated.

2 credits
Prerequisite: PS-III standing

**PSCI 0499 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 PPRA or PSCI 0499 may be applied toward elective requirements for the Pharm.D. degree.

1 to 3 credits

**PSCI 0501 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.

1 credit

**PSCI 0556 Pharmaceuticals and Personal Care Products in the Environment**
This elective will provide an understanding as to how the environment can serve as a source of leads for the development of pharmaceuticals and personal care products (PPCPs), as well as what can happen to the environment in the presence of PPCPs. Lectures will focus on identification of how PPCPs are introduced into the environment, mechanisms available to limit this type of pollution, actual and potential cause/effect relationships between specific products/byproducts and types of wildlife, as well as actual and potential cause/effect relationships between specific products/byproducts and humans (e.g. reproductive effects). While the environment is currently serving as a dumping ground for a variety of PPCPs, it also serves as a source of potential leads for novel PPCPs. Specific examples will be presented along with any relevant folklore.

1 credit
Prerequisite: PS-III standing

**PSCI 0557 Alternative Therapies and Natural Products**
Alternative therapies are being used by a growing percentage of the population and are becoming more visible to mainstream medical practice. Health care professionals should develop the knowledge and skills necessary to aid the patient in making rational decisions about the use of
alternative therapies. This elective focuses on the utility of drugs from natural sources in today’s practice environment and surveys the products of animals, plants, microbes, and biotechnology that will impact pharmacy tomorrow.

3 credits

PSCI 0564 Contemporary Compounding
Contemporary compounding is an elective course for students who are interested and want to develop an expertise in this field of practice. Some theory is presented with emphasis on the development of excellent compounding skills that are applicable to contemporary pharmacy practice.

3 credits

PSCI 0567 Advanced Topics in Medicinal Chemistry
This course provides an overview of several areas of current interest in the field of medicinal chemistry. Also presented in-depth will be certain specialized topics that received limited coverage in the required medicinal chemistry courses.

1 credit
Prerequisite: PS-III standing

PSCI 0568 Biotechnology
Biotech products are increasingly being used to treat diabetes, various types of cancer, some blood disorders, growth deficiencies, renal failure, infections, and multiple sclerosis. This module provides an introduction to types of biotech products, i.e., from recombinant DNA and antisense technology to monoclonal antibodies. Background information related to production, storage, and handling is discussed as they relate to analytical techniques, patient education and counseling, and therapeutic use. Other related topics include gene therapy, stem cells, cloning, pharmacogenomics, and the Human Genome Project.

2 credits
Prerequisite: PS-II standing

PSCI 06569 Development of Newly Approved Drug Therapies
FDA is constantly engaged in evaluating new drug treatments and giving them approval for marketing in the US throughout the year. In the year 2006 FDA approved about 25 new drug therapies. Newly approved drug therapies for various clinical conditions and diseases will be discussed.

1 credit
Prerequisite: PS-II standing

NONTRADITIONAL PHARM.D. PROGRAM

Goal of the Program
The College is committed to improving the quality of pharmaceutical care delivered to the citizens of the United States. In so doing, the faculty of the College have developed this Nontraditional Pharm.D. (NTPD) Program, which includes a sequence of courses covering key content areas and a variety of clerkships to enhance and expand skills of pharmacists in pharmacotherapeutic management. The primary objective of this program is to educate and prepare pharmacy practitioners to become more competent providers of pharmaceutical care. This program is offered to any registered pharmacist having a valid U.S. or Canadian pharmacist license. Upon successful completion of this self-paced, flexibly scheduled academic program, the pharmacist is eligible to earn a Pharm.D. degree.

Admission Requirements
An applicant for admission must provide the following documents:
1. Completed application form;
2. Official transcripts from all colleges of pharmacy attended;
3. Official transcripts for any academic work completed since graduation from a college of pharmacy;
4. Notarized photocopy of a valid U.S. or Canadian pharmacist license within six months of the beginning of coursework at the Chicago College of Pharmacy;
5. Two letters of recommendation;
6. Application processing fee of $75.00; and
7. Personal statement addressing the rationale for seeking a Pharm.D. degree and for applying to the Chicago College of Pharmacy.
8. Pass a criminal background check on an annual basis.

The College accepted its last class in fall 2006. The Admissions Committee of the College reviewed the completed application. A follow-up interview could have been conducted either in person or over the telephone if the committee felt that more information was required. The Admissions Committee provided its recommendation to the Dean.
CURRICULUM

Year 1 of the Program

Fall
PPRA 0700 Concepts in Current Pharmacy Practice 4 qh
PPRA 0710 Drug Literature Evaluation I 2 qh

Winter
PPRA 0702 Implementing Pharmaceutical Care 3 qh
PSCI 0751 Advances in Targets for Drug Action* 3 qh

Spring
PPRA 0791 Clinical Pharmacokinetics* 3 qh
PPRA 0761 Advanced Therapeutics I 3 qh
PPRA 0781 Longitudinal Chronic Care APPE 9 qh

Summer
PPRA 0762 Advanced Therapeutics II 3 qh
PSCI 0752 Contemporary Biotechnology 3 qh

Year 2 of the Program

Fall
PPRA 0763 Advanced Therapeutics III 4 qh
PPRA 0711 Drug Literature Evaluation II* 2 qh

Winter
PPRA 0764 Advanced Therapeutics IV 6 qh

Spring
PPRA 0783 Acute Care APPE 9 qh
PPRA 0784 Clinical APPE 9 qh

The timetable depicts a sample course schedule for a student who chooses to complete all academic requirements for the Pharm.D. degree in two calendar years. Alternatively, a student wishing to spread out the course of study over three or four calendar years can divide the didactic courses for Year 1 of the program over two years, or divide the didactic courses and APPEs for Year 2 of the program over two years. However, all courses in Year 1 must be completed prior to enrolling in courses in Year 2.

Courses marked with an asterisk (*) were offered in the College’s B.S in Pharmacy degree program. A student who earned a C grade or higher in these courses during the B.S. in Pharmacy program is eligible for automatic advanced standing.

Clinical APPE, and the traditional Chronic Care APPE (should students choose this option rather than the Longitudinal Chronic Care APPE) are to be completed after successful completion of the didactic courses.

Each APPE is equivalent to a 240-hour experience. The College anticipates that some APPE sites may be willing to accommodate students on a less than 40-hour per week basis (one to three days/week). However, the availability of such sites may be limited, and students will need to plan their work schedules accordingly. On average, it is anticipated that each student would be required to complete two APPEs on a full-time basis.

ELECTIVE COURSES

In addition to the didactic and experiential courses, students may choose to take elective courses from the traditional Pharm.D. degree program of the College. These courses typically require regularly scheduled on-campus classroom activities and examinations. Grades from elective courses are computed into the grade point average but are not required for graduation. Elective courses that are graded on the Pass/Fail scale are not computed into the grade point average.

ADVANCED STANDING

Once accepted into the NTPD Program, a student may be considered for advanced standing for any didactic course or experiential APPE in the curriculum. Advanced standing is automatically awarded to an enrolled student who has successfully passed any of the courses or completed any of the programs listed in the table.

In all other cases, advanced standing requests are processed on a course-by-course basis by the NTPD Student Promotion and Graduation Committee (SPGC). Advanced standing requests must be submitted in writing to the Office of the Dean of the Chicago College of Pharmacy. Once accepted to the College, a student may undertake one and only one of the following evaluation processes for advanced standing in a particular course, if available:

1. Syllabus review. The student supplies a copy of the catalog course description and syllabus for each course successfully completed at another accredited college or university. Only letter grades of C or higher are considered for advanced standing. The Office of the Dean forwards all materials to the course coordinator or appropriate disciplinary group of faculty. The course coordinator’s evaluation is then forwarded to the SPGC for a final recommendation. All requests must be submitted at least three weeks prior to the start of the course being considered.

2. Proficiency examination. An examination to evaluate a student’s proficiency in course content or allow an opportunity for a student to challenge a course for credit may be available at the discretion of the course coordinator, program director, or department chair. If available, such examinations are scheduled by the student
directly with the course coordinator and must be taken at least one month prior to the start of any course. The course coordinator’s evaluation will then be forwarded to the SPGC for a final recommendation. A student will have only one opportunity to take a proficiency examination for advanced standing consideration of a particular course. No retake examinations will be offered.

3. Portfolio review. The student will complete a portfolio of information, which documents successful attainment of knowledge and skills covered in the competencies of a course or APPE. To initiate the process, a student obtains a listing of information to be included in the portfolio from the Dean’s Office. Information requested will include, but not be limited to, documentation of course(s) or professional practice experiences that provided opportunities to acquire relevant knowledge and skills. An oral defense may be part of the portfolio review. In addition, a portfolio evaluation fee must be submitted for each course. The portfolio of information must be submitted to the Dean’s Office at least one quarter prior to the start of the course being considered or four months prior to the start of the first scheduled rotation. The portfolio will be forwarded to the course coordinator or review team. The evaluation of the review team or course coordinator will then be forwarded to the Committee for a final recommendation. A student may receive advanced standing by portfolio review for only one rotation. All students seeking advanced standing for APPE courses via portfolio review will be required to attend a portfolio preparation workshop, which will be offered annually.

### Advanced Standing

<table>
<thead>
<tr>
<th>Course in the CCP Nontraditional Pharm.D. Program</th>
<th>Successful completion of this program is considered equivalent to CCP course.</th>
<th>Student must provide this documentation for advanced standing consideration.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Therapeutics I–IV</td>
<td>Board of Pharmaceutical Specialties (BPS) exam in Pharmacotherapy</td>
<td>Notarized copy of board-certified pharmacotherapy specialist (BCPS) certificate from BPS; certificate must be valid throughout the length of the student’s enrollment in the program.</td>
</tr>
<tr>
<td>Drug Literature Evaluation II</td>
<td>ASHP Clinical Skills Program, Drug Information Series Modules I, II, and III, plus passing grade on a drug information consult.</td>
<td>Notarized copy of certificate of completion of this program from ASHP, plus drug information consult for review by CCP faculty.</td>
</tr>
<tr>
<td>Chronic Care APPE and Acute Care APPE</td>
<td>ASHP-accredited Pharmacy Practice Residency</td>
<td>Notarized copy of certificate of completion of this program from ASHP-accredited pharmacy practice residency program.</td>
</tr>
<tr>
<td>Clinical APPE in Oncology, Psychiatry, or Nutrition</td>
<td>BPS exam in designated specialty area and recent work experience in the corresponding specialty area</td>
<td>Notarized copy of BPS certificate in specialty must be valid throughout the length of the student’s enrollment in the experiential portion of the program; also, a recent curriculum vitae must be submitted.</td>
</tr>
</tbody>
</table>

* The consult must include a critical evaluation of the primary literature in a format consistent with DIAS Rounds in the Annals of Pharmacotherapy. Citations should conform to the “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” in Medical Education 1999; 33: 66–78.

### Credit Nondegree Status

Pharmacists may request to take courses for academic credit, on a nondegree basis. For consideration of this status, a pharmacist must provide the following documents:

1. Completed application form;
2. Official transcript from all colleges of pharmacy attended;
3. Notarized photocopy of valid U.S. or Canadian pharmacist license within six months of the beginning of coursework at the Chicago College of Pharmacy; and
4. Application processing fee of $50.00.

The completed application is reviewed by the Dean’s Office. If satisfactory, the applicant is permitted to take a course(s). All prerequisites must be satisfied prior to course registration. Continuing enrollment as a credit nondegree student is contingent on the student submitting a completed registration form at least one month prior to the first day of any quarter. A pharmacist who has successfully completed credit nondegree coursework earns continuing education credit and academic credit.

A pharmacist taking credit nondegree coursework may subsequently apply to the NTPD Program as a degree-seeking student. Credits from a maximum of four courses (to a maximum of 12 quarter hours), in which a minimum letter grade of C is earned in each course, may be applied toward the Pharm.D. degree after the credit nondegree student has been accepted for degree-seeking status.
Applications are available: Throughout the year, upon request
Application deadline: 60 days prior to the first day of any quarter
Admission decision available: 30 days prior to the first day of any quarter

Due to the discontinuation of the NTPD program, after July 1, 2006, CCP is not considering credit nondegree students for admission to the degree-seeking program. In addition, credit nondegree students who are admitted to the degree-seeking program beginning Fall 2006 will be required to complete all their didactic program requirements by the end of winter 2009.

Transfer Admission from Another Nontraditional Pharm.D. Degree Program

CCP may accept transfer students from other ACPE-accredited pharmacy schools as long as these students are in good academic standing and have legitimate reasons for seeking a transfer. If accepted in transfer, candidates for the degree must complete, at a minimum, one-half of the required credits of didactic courses and a minimum of one-half of the credits of experiential education at CCP. All requests for transfer information should be referred to the Office of the Dean, Chicago College of Pharmacy, so that the potential transfer applicant can be counseled prior to submitting an application.

To be considered for transfer, a student must meet the College’s general academic requirements for admission into the NTPD Program. He/she must also submit the following:
1. A letter to the Office of the Dean indicating why he/she wishes to transfer;
2. A completed CCP application;
3. Official transcripts from all colleges of pharmacy attended;
4. Official transcripts for any academic work completed since graduation from a college of pharmacy;
5. A letter from the Dean of the pharmacy college in which the student is enrolled. The letter must indicate the student’s current academic status and/or terms of withdrawal/dismissal;
6. One letter of recommendation from a faculty member at the current college of pharmacy in which the student is enrolled;
7. Notarized photocopy of a valid U.S. or Canadian pharmacist license, which documents valid licensure prior to admission to CCP.

The Office of the Dean collects and forwards the student’s application packet to the Admissions Committee for review. A follow-up interview may be conducted either in person or over the telephone if the committee feels that more information is required. The Admissions Committee provides its recommendation to the Dean. If the transferring student is admitted and requests advanced standing, the student’s request is processed as described in the section entitled Advanced Standing. CCP reserves the right to determine and accept credit courses from another accredited institution for meeting its degree requirements. Due to the discontinuation of the NTPD program, after July 1, 2006, CCP is not considering transfer admission from another nontraditional Pharm.D. program.

COURSE DESCRIPTIONS

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description, it is implied that there is no prerequisite.

PPRA 0700 Concepts in Current Pharmacy Practice
This course focuses on the application of the pharmaceutical care process. This includes development of such skills as the physical assessment; understanding the science, rationale, and counseling issues pertaining to novel drug delivery systems; and patient care planning. In addition, the pharmacist gains a familiarity with medical terminology, routine laboratory tests and clinical chemistry profiles, and interpretation of information in the medical chart.
4 credits

PPRA 0702 Implementing Pharmaceutical Care
This course introduces students to the clinical, managerial, and economic issues regarding the implementation of patient-oriented professional services into pharmacy practice. Readings, class discussions, and homework assignments are used to explore the need for new pharmacy services, describe how to integrate services into practice, and how to assess the resulting clinical and economic outcomes from a variety of perspectives. Workshops are used to demonstrate tools needed to provide and evaluate professional services, allowing students to gain “hands-on” experience. By the end of the course, students develop a business plan to justify and guide the implementation of patient-oriented professional services into a pharmacy practice.
3 credits
Prerequisite: PPRA 0700 Concepts in Current Pharmacy Practice

PPRA 0710 Drug Literature Evaluation I
This course is designed to introduce pharmacists to methods used to conduct, interpret, and evaluate research performed in all areas of pharmacy practice. Emphasis is placed on the use of research as a tool to investigate and provide solutions to practice-based problems. Topics covered include research design, data collection, analysis and interpretation, and the application of research results to pharmacy practice.
2 credits
PPRA 0711 Drug Literature Evaluation II
The pharmacist learns a systematic approach to drug information retrieval and gains practical experience in the critical evaluation of the medical literature. Pharmacists gain experience in preparing written responses to drug information requests.
2 credits
Prerequisite: PPRA 0710 Drug Literature Evaluation I

PSCI 0751 Advances in Targets of Drug Action
Drug action can be organized around four targets: message receptors, enzymes, nucleic acids, and excitable membranes and other biopolymers. Significant advances in the understanding of the characteristics of many of these targets have facilitated many recently introduced drugs acting at these targets. Many of these drugs have opened new therapeutic classes or have produced substantial improvements over previous therapies. Examples of new drug entities that have been developed in each of these target areas are discussed with emphasis on those that have new mechanisms of action. This course includes printed self-instructional materials with periodic workshop discussions on course material including therapeutic applications in a case study problem-solving format.
3 credits

PSCI 0752 Contemporary Biotechnology
The number of biotechnology medicines currently approved or under development by pharmaceutical manufacturers has dramatically increased in recent years. This course presents important chemical and biochemical concepts as well as various molecular biology techniques for the successful production, storage, and handling of biotechnology products. These concepts emphasize important considerations of these products for use in the prevention, diagnosis, and/or treatment of immunologic disorders, endocrine disorders, cardiovascular disorders, cancer, and many other disease states. The basic science aspects of these topics provide the clinician with critical knowledge for appropriate patient education, patient counseling, and therapeutic decision making.
3 credits

PPRA 0761, 0762, 0763, 0764 Advanced Therapeutics I, II, III, IV
These courses expand and focus on the application of the concepts of pharmaceutical care and patient assessment introduced in Concepts in Current Pharmacy Practice. Course blocks (modules) are organized according to diseases of various organ systems. Within each block (modules), drug treatments of selected diseases are reviewed. An emphasis is placed on assessment of indications for drug therapy, selection of rational and safe drug therapy, identification of alternatives to drug therapy, and patient monitoring. The pharmacist will apply problem-solving strategies to realistic patient cases and develop patient care plans.
Prerequisite Advanced Therapeutics I, 3 credits: PPRA 0700 Concepts in Current Pharmacy Practice
Prerequisites Advanced Therapeutics II, 3 credits; III, 4 credits; IV, 6 credits: PPRA 0700 Concepts in Current Pharmacy Practice and PPRA 0761 Advanced Therapeutics I

PPRA 0781 Longitudinal Chronic Care Advanced Pharmacy Practice Experience
This APPE is longitudinal beginning during the spring term of the first year. The longitudinal nature of the APPE allows for maximum exposure to chronic disease states found in the ambulatory setting. The established Pharm. D. competencies are developed over time and are equivalent to the entry-level Pharm. D. program competencies. This APPE should be completed before beginning the Acute Care APPE and the Clinical APPE. Advanced therapeutics are taught concurrently with this APPE, which will allow for practical and immediate application. The site is identified early and students will use the same site throughout the APPE.
9 credits
Prerequisites: PPRA 0700 Concepts in Current Pharmacy Practice and PPRA 0702 Implementing Pharmaceutical Care, and concurrent enrollment in PPRA 0761-0764 Advanced Therapeutics I-IV and PPRA 0711 Drug Literature Evaluation II

PPRA 0782 Chronic Care Advanced Pharmacy Practice Experience

PPRA 0783 Acute Care Advanced Pharmacy Practice Experience

PPRA 0784 Clinical Advanced Pharmacy Practice Experience
Advanced Pharmacy Practice Experience (APPE) emphasizes in-depth experience in the provision of pharmaceutical care in ambulatory, chronic, and acute patient care settings. The NTPD student, under the supervision of adjunct or full time clinical faculty, participates in the drug use decision-making process and will monitor outcomes of drug therapy in various patient populations.
9 credits
Prerequisite: Completion of all didactic courses

PPRA 0791 Clinical Pharmacokinetics
This course focuses on the application of pharmacokinetic principles for the purpose of optimizing drug therapy. A self-study workbook is used to teach the principles, which include effects of disease and drug-drug interactions on pharmacokinetic parameters; initial loading and maintenance dosage regimen calculations; dosage adjustment for linear and nonlinear drugs; effects of altered serum protein binding;
STUDENT ACADEMIC POLICIES

The following academic policies apply to all CCP 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 Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Student Promotion and Graduation Committee

The Student Promotion and Graduation Committee (SPGC) is composed of the Assistant Dean and members of the College faculty. It 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 each program. As such, this Committee establishes the criteria 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 programs 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.

Among the options available to the Committee in regard to unsatisfactory student performance are:

1. That a written caution be provided to the student.
2. That the student:
   a. be placed on academic probation for a specified period of time;
   b. take an alternative approved course offered at another college or university;
   c. be considered for remediation;
   d. repeat the course(s) in which there is a failure when the course is offered again in the curriculum;
   e. be placed in an extended program; or
   f. be dismissed from the College.

Academic Standards for the Traditional Pharm.D. Program

An annual didactic grade point average will be used as the central 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, 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 in their professional program to remain in good academic standing. If a student’s annual grade point average drops below 2.00 at the end of any quarter during the academic year, or the student earns a grade of F in one or more courses, the student is notified, in writing that he/she 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.

If the student has an annual grade point average less than 2.00 at the end of an academic year, or has earned a grade of F in one or more courses that year, the student will be either dismissed or given the option to be in an extended program and repeat all of the courses in that year in which grades of D or F were received. In addition, if the student earned grades of D or F in two or more courses in a three or four course sequence in Medicinal Chemistry, Pharmacology, or Pharmaceutics, the student will be required to repeat the entire course sequence as part of the extended program. This extended program year must take place in the year immediately following. A student is allowed to go through a extended program only once.

If the student does not meet the criteria for academic performance at the end of the extended program, the student must raise his/her annual grade point average to 2.00 or above at the end of the repeat year. Such a student re-enters the next professional year curriculum and resumes a full load. A re-entering student must achieve a cumulative grade point average of 2.00 at the end of each quarter to continue at CCP.
The following policies also guide decisions made by the Student Promotion and Graduation Committee:

1. Any student with a pre-pharmacy deficiency(ies) at the time of matriculation must complete any and all deficiency(ies) prior to the beginning of the second professional year. Failure to do so will result in a delay in the start of the second professional year. Only under extraordinary circumstances are time extensions permitted by the Dean. To document completion of pre-pharmacy coursework, students must provide an official transcript(s) to the Admissions Office or Registrar.

2. Students must successfully resolve all I (incomplete) grades before beginning experiential rotations.

3. To proceed with APPEs, a student must earn an annual PS-III didactic grade point average (GPA) of at least 2.00, and must have successfully completed all pre-pharmacy and all professional core and elective PS-III level coursework.

Academic Standards for Nontraditional Pharm.D. Program
Placement on probation and other academic actions depend directly on the GPA. Students must maintain a minimum cumulative GPA of 2.00 (which is calculated from grades of all courses taken) to remain in good academic standing. If a student’s cumulative GPA drops below 2.00, the student is notified in writing that he/she is being placed on academic probation for the next academic quarter. Probation represents notice that continued inadequate performance may result in dismissal from the program.

If a student’s cumulative GPA remains below 2.00 for two consecutive quarters in which the student is enrolled, he/she may either be dismissed or given the option to repeat all the courses in which grades of D or F were received. If the student does not meet the criteria for good academic performance after repeating those courses in which Ds or Fs were received, he/she will be dismissed. To be returned to good academic standing after earning a cumulative GPA of less than 2.00, a student must raise his/her cumulative GPA to 2.00.

1. Candidates for the Pharm.D. degree must resolve all incomplete letter grades in didactic coursework before beginning full-time APPEs.
2. A minimum GPA of 2.00 for all didactic coursework is a prerequisite for the first full-time APPEs.
3. The maximum length of time to complete all requirements for the Pharm.D. degree is 4 calendar years.
4. NTPD students receive an MWU e-mail account when they matriculate into the program. Students are responsible for all administrative information and course specific information that is sent to students via MWU mail. This will be the only e-mail address that College faculty and administrators will use to electronically communicate with students.

5. Students may begin their Longitudinal Chronic Care APPE (LCC) in the spring quarter of their first year. This part-time APPE is completed over several quarters. The Acute Care and Clinical APPE (and the traditional Chronic Care APPE, should students choose this option rather than the Longitudinal Chronic Care APPE) are to be completed after successful completion of the didactic courses. Should students earn a failing grade in a didactic course while enrolled in the LCC APPE, their continuation of the LCC rotation is subject to review by the NTPD Student Promotion and Graduation Committee.

6. A minimum of one-half of the required credits of didactic courses and one-third of the credits for APPEs must be successfully completed at CCP while enrolled as an NTPD student, regardless of eligibility for advanced standing. Students who are eligible for more than one-half of the required credits of advanced standing in the NPTD curriculum may enroll in any CCP elective in the traditional program, independent study elective, or elective APPEs.

Appeal Process
Following notification of a decision for dismissal or academic deceleration, 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. The Dean makes the final decision on appeals. 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.

The student being evaluated may request to appear before the Committee during its deliberation.

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. Students dismissed for poor academic performance may reapply for admission to the College. For specific readmission criteria, students should contact the Dean’s Office of the College.

Advanced Pharmacy Practice Experience Failures in the Traditional and Nontraditional Pharm.D. Programs
When a student either fails or receives a withdrawal failure (WF) in an APPE he/she must petition the Student Promotion and Graduation Committee within 30 calendar
days after the last day of the failed or withdrawn failed APPE to retake the same type of APPE. After consideration of the circumstances of the failure or WF, the Student Promotion and Graduation Committee may exercise any of the following options:

1. Require the student to take coursework;
2. Recommend that the student take coursework;
3. Recommend that the student undergo a period of independent study; or
4. Require the student to wait a defined time period before repeating the APPE.

The Committee’s options are not limited to the above and will be determined on a case-by-case basis. The timing of the retake will be as early as possible once the student has satisfied the Committee’s requirements and is subject to availability of sites as determined by the Office of Experiential Education. The retake, if granted, must be completed within 12 calendar months of the date the petition is received by the Dean’s Office. If the student fails or receives a WF for the APPE on the retake, he/she is dismissed from studies at CCP. Students are allowed only one failed or withdrawn failed APPE and one retake of the failed or withdrawn failed APPE while enrolled at CCP.

**Extended Program in the Traditional Pharm. D. 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 Student Promotion and Graduation Committee 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 Assistant Dean, Chicago College of Pharmacy. The Assistant Dean is responsible for reviewing and assessing the Committee’s recommendation, 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 2.00 may be given the option to repeat courses from that year in which D or 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 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 he/she reenters the prescribed academic program and completes all courses that were unsatisfactory and are required for graduation.

A re-entering student 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.

**Prerequisites for Courses**

Prerequisites for courses may be established by the department that administers the course. Prerequisites are recommended to the Curriculum Committee for approval and are listed with the course description in the catalog. On a case-by-case basis, prerequisites may be waived upon approval by the chair of the department that delivers the course.

**Withdrawal from College/University**

The decision to withdraw from the University is a serious matter. Any student who withdraws from a college or program is dropped from the rolls of the University. As such, if he/she decides at some later date to reenter the program, he/she must reapply for admission and, if accepted, assume the status of a new student. Students contemplating withdrawal must inform the Dean of the decision to voluntarily withdraw and voluntarily relinquish his/her position in the program. The student must contact the Dean’s Office and must complete the appropriate clearance procedures. The withdrawal process includes the clearing of all financial obligations of MWU and an exit interview. 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 his/her program without complying with the above procedures. For more information, see the Student Financial Services sections on Notification of Withdrawal and Return of Title IV Funds/MWU Refund Policy.

**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
rearranging mandatory attendance, a student must notify one of the following: CCP Dean’s Office, CCP department head, or course director. To be excused from an APPE, the student must notify his/her preceptor, in addition to the Office of Experiential Education. Assuming that there is a legitimate reason for a student’s absence, the CCP Dean’s Office will contact by telephone or email the course directors in which the student will miss an examination, quiz, or graded assignment, or will send a letter 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 called in. 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 Reasons
The College recognizes that a student may desire to be excused from class or APPE for non-illness, non-emergency-related reasons from time to time. An Absence Request Form must be completed prior to the day that the student wishes to be excused. Forms are available from the CCP Dean’s Office.

Advanced Standing in the Traditional 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 CCP 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 he/she 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. For rotations, all requests must be submitted at least six months prior to the first day of the specific rotation 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.

Advanced Standing for the Nontraditional Pharm.D. Program
Once accepted into the NTPD Program, a student may be considered for advanced standing for any didactic course or APPE in the curriculum. Several evaluation processes can be used. Refer to the admissions section of the College catalog for additional information.

Attendance
Upon acceptance to the Chicago College of Pharmacy, students are expected to devote their entire efforts to the academic curriculum. The College actively encourages 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 student IPPE or APPE manual for specific details regarding this policy.

Class Standing
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 2.00. 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 2.00. To achieve the status of a fourth-year student in the professional program (PS-IV), students must have successfully completed all requisite third-year courses and earned annual GPAs of 2.00.

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 faculty of the Chicago College of Pharmacy encourage the use of comprehensive assessment tools throughout its curriculum.

Course Credit
Course credits are generally determined according to the following formula: one credit is assigned to a course for three laboratory contact hours per week; two case discussion, recitation, or workshop contact hours per week; one formal lecture contact hour per week; or three contact hours of other activities per week. Each week (40 hours) of experiential education (IPPEs or APPEs) is equivalent to 1.5 credits. Exam time could be considered part of contact time such that the instructor would have the option to count time spent on assessments as part of contact time.
Course Withdrawal
Unless there are exceptional circumstances, a student will not be allowed to withdraw from a course after the end of the 8th week of the quarter. In the event of exceptional circumstances, the student who withdraws from a course will get a WP or WF based on performance.

Criminal Background Check
Many hospitals now require criminal background checks of students who are rotating through their system. The criminal background check is valid for one year only, so it must be performed within the year prior to starting the experiential course (IPPE or APPE). As such, annual criminal background checks will be conducted on all pharmacy students. Criminal background information will be shared with clinical sites that are affiliated with Midwestern University educational programs.

Dean’s List
Following each quarter, the Chicago College of Pharmacy recognizes students who have distinguished themselves by achieving a GPA of 3.50 or better for the quarter. This applies for full-time didactic and IPPE coursework only and applies to all students who matriculate in fall 2006 or thereafter. For other students, the criteria for Dean’s List recognition is a GPA of 3.25 or better for the quarter.

For students in the NTPD Program, this applies for didactic coursework only, and to those students who are enrolled in 5 or more quarter hours for a particular term.

Disciplinary Probation
Disciplinary probation occurs 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 the student’s file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Faculty Advisor Program
The Chicago College of Pharmacy assigns a faculty advisor to students in each entering class whose role is to assist with academic and nonacademic problems. In addition to these faculty advisors, staff in the CCP Dean’s Office and the Dean of Students, as well as other faculty members and staff, are also available to assist students with academic advising, counseling, professional enrichment activities, and nonacademic problems. Students are assigned a faculty advisor selected from the faculty of CCP. Students will likely have the same advisor throughout their academic careers.

During orientation, advisors meet their new students in groups of approximately 6-7 students. These groups may serve as the workshop groups for courses within the curriculum. CCP faculty advisors 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 advocates for the student.
5. Counseling the student during his/her selection of a career within the pharmacy profession.

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. Elective courses may be offered as pass/fail upon the direction of the faculty. No D grades are used for APPE courses. The following letter grades are not used for didactic courses: C-, D+, or D-. For students entering in Fall 2008 or thereafter, the grade of D will not be used for any courses.

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 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. Under such circumstances, the student is responsible for providing the department with a written request notifying the department of the circumstances, documenting the problem(s), and asking for authorization to extend the time allotted to complete the unfinished coursework. Unless otherwise specified, a grade of I must be resolved within 10 calendar days starting from the last day of final exams for the quarter or the incomplete grade is automatically converted into a grade of F, which signifies failure of the course.

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.

If a student receives an F grade in a course, that grade will be recorded on his/her transcript. This deficiency may be corrected as recommended by the Student Promotion and Graduation Committee in one of two ways: remediation or remediation of the course. The decision to permit a student to remediate or repeat the course rests with the department offering the course and the Committee. Following either successful remediation or repetition of the course, the
permanent record of the student will be updated to indicate that the failing grade has been successfully corrected.

If course remediation was successfully completed, a grade of D or P if the course is a pass/fail course, is registered in place of the F, and the student’s cumulative grade point average will reflect the change. For students matriculating in Fall 2008 or thereafter, a grade of C or P will be entered on the transcript to reflect the successful remediation.

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.

Grade and Quality Point Scale for Students Admitted Prior to or in Fall 2007

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points Per Credit</th>
<th>Grade</th>
<th>Quality Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.00</td>
<td>I</td>
<td>Incomplete coursework</td>
</tr>
<tr>
<td>A</td>
<td>4.00 Superior Attainment</td>
<td>P</td>
<td>Passing</td>
</tr>
<tr>
<td>A-</td>
<td>3.75</td>
<td>W</td>
<td>Withdrawal with no penalty and no credit</td>
</tr>
<tr>
<td>B+</td>
<td>3.25</td>
<td>W/F</td>
<td>Withdrawal/Failing</td>
</tr>
<tr>
<td>B</td>
<td>3.00 Meritorious Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B–</td>
<td>2.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.00 Adequate Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D*</td>
<td>1.00 Minimum Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.00 Failure</td>
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</tbody>
</table>

Grade and Quality Point Scale for Students Admitted in Fall 2008 or Thereafter

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points Per Credit</th>
<th>Grade</th>
<th>Quality Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00 Superior Attainment</td>
<td>I</td>
<td>Incomplete Course</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
<td>P</td>
<td>Passing</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
<td>W</td>
<td>Withdrawal with no penalty and no credit</td>
</tr>
<tr>
<td>B</td>
<td>3.00 Meritorious Attainment</td>
<td></td>
<td>Withdrawal/Failing</td>
</tr>
<tr>
<td>B–</td>
<td>2.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.00 Adequate Attainment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.00 Failure</td>
<td>0.00</td>
<td></td>
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</tbody>
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Grade Appeals Policy

1. 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 receipt 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. bias
   2. mathematical error in calculating the final grade
   3. factual errors in course assessment tools

   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 his/her decision within one week following receipt of the student’s reappeal. The decision of the course director’s supervisor is final and must occur prior to the start of the subsequent quarter.

2. Appeal of Course Grades Subject to Review by the Student Promotion and Graduation Committee
   A student whose academic progress will be subject to review by the College’s 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 course grade must be submitted within 24 hours following receipt of the grade and must be based on one of the premises stated above. The course director must act on this appeal within 24 hours. Any appeal of this decision will be addressed by the course director’s supervisor. The student is responsible for notifying the chair of the Student Promotion and Graduation Committee that a grade appeal has been filed prior to the meeting of the Committee.

   All appeals and decisions must be communicated in a written form.

Graduation Honors in the Traditional 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. Degrees with honor are awarded based on the level of academic achievement as follows:
For Students who Matriculated Prior to Fall 2007

Didactic Course*  
Grade Point Average  
≥3.75  
3.50–3.74  
3.25–3.49  
Graduation Honor  
Summa cum laude  
Magna cum laude  
Cum laude

*IPPE courses are also included in the calculation of cumulative grade point for graduation honors.

For Students who Matriculated in Fall 2007 or Thereafter

Didactic Course*  
Grade Point Average  
≥3.90  
3.75–3.89  
3.50–3.74  
Graduation Honor  
Summa cum laude  
Magna cum laude  
Cum laude

Graduation Walk-Through Policy
A student who has not satisfied academic requirements for a particular degree may seek permission to participate in a graduation ceremony for his/her program/college if the student will complete all academic requirements for the degree within the one quarter immediately following the official scheduled end of the academic program for his/her class.

To seek permission, the student must submit a formal, signed letter of request in writing to participate in the graduation ceremony. The letter should be addressed to the CCP Dean. The letter must state the reason for the request, a timeline for completion of all academic requirements for the degree which shows that all degree requirements will be met within the one quarter immediately following the official scheduled end of the academic program for his/her class. The letter should be submitted no later than eight weeks prior to the official graduation date for his/her program/college.

The Dean is responsible for verifying that all of the requisite information is in the letter, and that the information is correct. The Dean then forwards the letter to the Student Promotion and Graduation Committee for consideration.

The Student Promotion and Graduation Committee is responsible for reviewing the student’s request. Each request is considered based on its individual merits. If approved, the committee will add the student to the proposed list of candidates for graduation, denote on the listing that the student will not have completed the academic requirements by the official graduation date, and then forward the list of candidates to the Dean.

The Dean will then forward the list of candidates for graduation to the MWU Faculty Senate for review and approval at an appropriately scheduled meeting, prior to the official graduation date.

The Senate will forward the list of approved candidates for degrees to the University President for review and approval by the Board of Trustees.

In all cases, students who walk through will not receive a diploma, until all graduation requirements are met.

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 CCP 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.

A student who withdraws from a module after the official start of classes for a quarter, and who does not receive approval from the CCP Dean’s Office, will receive a WF grade on his/her 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 CCP Dean’s Office. Should the student drop a rotation after the first week of rotation activity, the student will receive a grade of W, WP or WF.

Leave of Absence from APPEs in the Traditional 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 September 1 of the PS-III year of Pharm.D. program. 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 6 months.

Liaison Committees
Student-Faculty Liaison Committees meet at least once each quarter 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 CCP program. Additional meetings may be called by the department chairs upon receipt of a written request from either student or faculty representatives. 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. The chair may provide suggestions on best ways for liaisons to collect comments and concerns about courses so that this information can be presented at committee meetings. 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 2 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 2 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 2 students elected by the third-year class.

4. Student-Faculty Liaison Committee, Fourth 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 2 students elected by the fourth-year class.

5. Student-Faculty Liaison Committee, NTPD: Course directors of each of the courses for any given quarter, the Assistant Dean, and 1 student representing the program.

**Re-examination (Retest)**

Re-examination (Retest) occurs when a student fails a course, but qualifies for a re-examination. It is the prerogative of the course director to offer or not offer a re-examination for a course failure and to determine the eligibility criteria for a re-examination. If a course director has a re-examination policy, it should be stated in the course syllabus. If a student qualifies for a re-examination, a grade of “I” should be submitted to the Registrar at the end of the quarter. After that time, materials are discarded. Instructors will retain examinations or written assignments not returned to students for a period of one year following the start of the quarter in which a course is given. After that time, materials are discarded.

If the Registrar does not receive a change of grade form within 10 working days, the “I” will automatically be changed to a grade of “F.”

**Retake**

Retake occurs when formal repetition of an entire course or a portion of the course is required due to course failure, or in some programs when a D letter grade has been earned. A course may be retaken when:

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/Academic Review Committee of each college/program to recommend a Retake of a course. The academic review committee following department approval will determine the nature of the Retake and the time frame for completion of the repeated course. The course may be repeated at MWU or at an outside institution. The options for repeating a course at MWU may include a directed readings remedial course with examinations to repeating the course in its entirety the next academic year. In either case, the student must be registered for the course and will be charged the appropriate tuition. A repeated course at an outside institution must be approved by the department/program 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 in order to apply the credit toward MWU degree requirements. Students are responsible for all costs associated with repeating a failed course at another institution.

**Retention of Tests or Written Assignments**

Instructors will retain examinations or written assignments not returned to students for a period of one year following the start of the quarter in which a course is given. After that time, materials are discarded.

**Test-Taking Procedures**

1. All personal belongings should be placed in an area designated by the instructor/proctor. Only items required by the instructors/proctors should be in sight on the desk.
2. During the exam:
   a. Brimmed hats (e.g., baseball hats) should be worn backwards (or not at all);
   b. No sunglasses or mirrored glasses may be worn;
   c. Cell phones, pagers, and computerized handheld organizers must be left with personal belongings and must be set to operate in a “silent” mode.
3. Only college-approved calculators (without covers) may be used for exams.
4. All students must stop writing and immediately place their writing utensils on the desk when the end of the exam period is announced. Faculty are permitted to assess a grading penalty to students who continue to work, as described in the course syllabus.

5. Students must turn in all exam materials before leaving the exam room. Portions of the exam may be returned at a later time depending on the policy of the instructor.

6. The proctors are obligated to provide verbal warning or move a student to another seat if: 1) a student appears to be gazing at another student’s work; 2) a student appears to be talking, or signaling answers; 3) neglects to protect his/her answer sheet from view of other students; or 4) a student is sitting near a student who is gazing at their work. Such interventions are not of a personal nature. To avoid such interventions, all students are required to keep their eyes on their own work, shield their work from the view of others, and otherwise avoid any appearance of suspicious behavior.

Transportation to/from the IPPE or APPE Sites
It is the student’s responsibility to assure that he/she has appropriate arrangements for transportation to/from IPPE and APPE sites throughout the curriculum. Transportation is not provided by the College.

AWARDS AND SCHOLARSHIPS

American Institute of the History of Pharmacy Award
A certificate of recognition is presented to a student who has best carried out some type of pharmaco-historical activity.

American Pharmaceutical Association Mortar & Pestle Professionalism Award
A wooden mortar and pestle is presented annually to a graduating student who exhibits the ideals of professionalism and excellence in patient care in all aspects of an academic pharmacy career. The winner is eligible to compete in an essay competition to receive a scholarship to be used for professional development activities.

Association of Indian Pharmacists in America (AIPhA) Scholarship
A monetary award is presented to three pharmacy students of Indian ancestry who demonstrate excellence in pharmacy and are active members of AIPhA.

Bernard B. Brody-Rho Pi Phi Jurisprudence Scholarship
The Bernard B. Brody-Rho Pi Phi Jurisprudence Scholarship is a monetary award that is presented to a PS-3 student with outstanding performance in the CCP pharmacy law course.

Charles R. Walgreen Scholarships
Scholarships are awarded to two PS-4 or PS-3 students who are in good academic standing, who excel in community pharmacy practice, and who have the intention to pursue advanced patient care service programs in the community setting.

Chicago College of Pharmacy Admission Scholarship
Scholarships are awarded to seven newly admitted pharmacy students with exemplary pre-pharmacy coursework performance. Student recipients are selected by the Admissions Committee. The scholarship is renewed provided that the student maintains performance excellence during the CCP program.

Chicago College of Pharmacy Departmental Awards
Three monetary awards are presented each year to the graduating students who are deemed outstanding in medicinal chemistry, pharmaceutics, or pharmacy administration.

Chicago College of Pharmacy Scholars in Leadership and Diversity Scholarship
A monetary scholarship is presented to an under-represented minority PS-2 or PS-3 student who has demonstrated leadership capabilities and a commitment to enhancing diversity in the pharmacy field.

CVS Scholarships
Two scholarships are awarded each year to students who are in good academic standing and have demonstrated interest in community pharmacy practice.

CVS Minority Student Scholarship
A scholarship is awarded each year to an under-represented minority student who has a demonstrated interest in community pharmacy practice.

Doc’s Drugs Scholarship
Monetary awards are given annually to two students who excel academically and demonstrate strong leadership and communication skills with a desire to practice in an independent retail pharmacy.

Facts and Comparisons Award of Excellence in Clinical Communication
A copy of Drug Interaction Facts, Drug Facts and Comparisons, American Drug Index, Patient Drug Facts, and a set of marble bookends are presented to a graduating student who has demonstrated superior verbal and written clinical communication skills.

George Lee Scholarship
A monetary award is presented to a PS-3 or PS-4 student who has demonstrated academic excellence, leadership, and sustained participation in community service or societal improvement programs.

Glaxo SmithKline Patient Care Award
A plaque and a monetary award are presented to the graduating student who excels in patient care.

Hadley-Chicago College of Pharmacy Research Scholarship
A monetary award is given to a student who has excelled in the area of special projects or research and/or demonstrates...
an interest in basic or clinical research as a career or area of advanced academic study.

**Illinois Association of Community Pharmacists Award**
This endowed award is presented to a graduating student who has demonstrated exceptional counseling and communication skills and who plans to enter community pharmacy practice.

**Illinois Council of Health-Systems Pharmacists (ICHP) Student Award**
This monetary award and plaque are given to a PS-3 student with good academic performance, leadership skills, past history of employment in a hospital or hospital-affiliated facility, and active membership in ICHP. The student must also be an Illinois resident or Illinois high school graduate.

**Illinois Pharmacists Association Foundation Student Leadership Award**
This monetary award and one-year membership in IPhA is given to the graduating student who promotes pharmacy through leadership and involvement in professional associations.

**Lilly Achievement Award**
This award is given for superior scholastic and professional achievement. Leadership qualities as well as professional attitude are considered along with academic performance in selecting the graduating student for this honor.

**Manek Scholarship**
A monetary award is presented to a student who is hard-working and demonstrates extreme financial need.

**Mary Anne Clinton Memorial Scholarship for Community Service**
This monetary award is presented to a student who has demonstrated concern for social consciousness or global well being. Demonstration of this philosophy could be through active participation in alcohol and drug awareness, animal rights, educational advancement of underserved populations, and environmental awareness.

**Mary Beth Stanaszek Memorial Scholarship**
This annual monetary award and plaque is given to an outstanding pharmacy student in the second or third professional year who has assumed leadership in pharmacy student organizations or student government, demonstrated commitment to patient care and patient education, and has financial need.

**Meijer Drug Company Scholarship**
A scholarship is awarded each year to a student interested in entering chain community pharmacy.

**Milo Gibaldi Award for Research and Scholarship**
A monetary award is presented to a PS-4 student with an outstanding record of achievement in research and/or scholarly publication.

**MRxI Corporation Pharmacy Student Scholarship**
This award is given to a PS-3 or PS-4 student who demonstrates exemplary verbal communication skills and has a focus on teaching, training, or academics.

**Mylan Excellence in Pharmacy Award**
This award, consisting of a certificate and a monetary award, is given to the graduating student who has demonstrated superior proficiency in the provision of drug information services.

**Natural Medicines Comprehensive Database Recognition Award**
A reference text is awarded to a graduating student who has demonstrated excellence in the area of natural medicines. This award is sponsored by the Pharmacist’s Letter.

**Osco Drug-SUPERVALU Valu Bright Star Scholarships**
A monetary award is presented to four students based on their outstanding academic performance, ethnicity, and financial need.

**Osco Drug-SUPERVALU Scholarships**
Ten scholarships are awarded each year to pharmacy students interested in entering chain community pharmacy.

**Perrigo Award of Excellence in Nonprescription Medication Studies**
This award consisting of a plaque and monetary award is presented to a graduating student who has excelled in courses involving over-the-counter medications.

**Pharmacists Mutual Companies Book Award**
A reference text is presented to a student who has demonstrated outstanding performance.

**Pharmacists Mutual Companies Scholarship**
This scholarship is presented to a student who has a desire to be a community practitioner and has demonstrated academic achievement and financial need.

**Polish American Pharmacist’s Association–Joseph Koslow Memorial Book Award**
A reference text is presented each year to an outstanding pharmacy student with a knowledge of and an appreciation for the culture and history of Poland and Eastern Europe.

**Rite-Aid Scholarship**
A monetary award is presented to two students who have a desire pursue a career in a retail/community setting, have excellent communications skills and leadership skills, and have a demonstrated financial need.

**Roche Laboratories Pharmacy Communications Award**
An engraved plaque is presented to a graduating student who has demonstrated effective communication skills during his/her experiential rotations.

**ShopKo Stores, Inc. Scholarship**
A monetary award is presented to one student who has a desire to pursue a career in community pharmacy and has demonstrated financial need.
Teva Pharmaceuticals USA Outstanding Student Award
A plaque and monetary award are presented to a graduating student who excels in the study of pharmacy.

U.S. Public Health Service for Excellence in Public Health Pharmacy Practice Award
A mounted certificate is presented to a student who has either advanced the “Healthy People 2000 Goals” through participation in educational and community-based programs, provided service to the medically underserved, volunteered for a health-related service, or provided outstanding leadership to foster the team approach to patient care.

Walgreens Minority Scholarship
A scholarship is given each year to an incoming underrepresented minority student based on his/her academic merit, extracurricular activities and financial need. This scholarship is renewable for the first three years.

Wal-Mart Pharmacy Scholarship Award
Scholarships are given to these PS-2 or PS-3 students with high scholastic standing, strong leadership qualities, and an interest in entering community pharmacy practice.

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Chair, Associate Professor

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Assistant Professor

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College of Pharmacy
Associate Professor

Archana Desai, Ph.D.
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Erasmus Medical Center Department of Pharmacology and Therapeutics
Associate Dean for Research and Professor

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Albany College of Pharmacy
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Susan Winkler, Pharm.D., BCPS
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College of Pharmacy
Assistant Dean, Interim Chair and Professor
MISSION
The mission of the College of Health Sciences is to educate and graduate competent health care professionals who will meet the health care and service needs of the public in a wide range of community and institutional practice settings. Students enrolled in the College of Health Sciences will become knowledgeable about and establish linkages with the osteopathic profession during the course of the education provided by the College. The College of Health Sciences shall develop and maintain progressive educational programs that meet or exceed professional accreditation standards, and satisfy the eligibility requirements of graduating students to pursue licensure/certification in the appropriate discipline within the United States. This mission is expressed in the educational, research, and service objectives of the College of Health Sciences.

ACADEMIC POLICIES
The following academic policies apply to all College of Health Sciences (CHS) 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 Department of Education, or other unforeseen circumstances, students will be notified in writing prior to the effective date of the new policy.

Academic Monitoring
All students enrolled in the College are expected to:
1. Maintain satisfactory academic progress in their course of study;
2. Meet all academic and professional standards established by the faculty of their program and the College; and
3. Comply with all standards of professional conduct and deportment expected of a student enrolled in a program of study that leads to eventual practice in a regulated health care profession.

The academic progress of each student enrolled in the College is regularly monitored to determine whether he/she is making satisfactory academic progress in his/her 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 CHS Student Promotion and Graduation Committee, and the CHS Dean.

Student Academic Review Committee for Each Program
This committee is appointed annually by the Faculty Senate with the recommendation of the Program Director. Membership consists of three or more program faculty members and the Program Director (or his/her designee) who is the Chair of this committee. The CHS Dean, a representative of the Department of Student Services, and the Registrar are ex-officio members without vote.

At the end of each quarter, this committee reviews and acts upon the academic progress of each student enrolled in the program. If satisfactory, the committee recommends promotion of the student at the end of each academic year. If unsatisfactory, a prescribed course of action is determined by the committee. The committee also decides whether a student is placed on academic warning, academic probation, administrative probation, suspension, or dismissal. The committee also recommends for graduation all students who have satisfactorily completed all degree requirements specified by the 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, four faculty members from the basic science departments (2 representatives from each campus), the Registrar (ex-officio without vote), and a Dean of Students (ex-officio without vote). The CHS Dean is also an ex-officio member without vote. The CHS Dean appoints the co-chairs, one from each campus, of this committee with advice of the University Faculty Senate. Each campus will have a subcommittee that is chaired by the co-chair from each respective campus.
At the end of each academic quarter, the subcommittee will review student appeals from their respective campus. A subcommittee reviewing a student appeal must have three or more CHS Promotion and Graduation Committee members from the respective campus where the student resides. Additionally, a majority of faculty members on each subcommittee must be from outside the program from which the student is appealing. At the end of each academic year, this committee reviews the recommendations from the individual Program Student Academic Review Committee and assesses the academic and professional progress and performance of each student. If satisfactory, the committee recommends promotion of the student. In addition, this committee meets each spring and fall to initiate a recommendation for graduation for all students who have satisfactorily completed all degree requirements specified by their program. Its recommendations are forwarded to the CHS Dean and the University Faculty Senate for approval. This committee is also responsible for formulating the criteria for promotion and graduation of students and policies for student appeals which are published in this catalog. The co-chairpersons of the committee are responsible for submitting minutes of each meeting to the CHS Dean.

Students' Responsibilities
Students enrolled in the CHS professional education programs are responsible for:

1. Understanding and meeting all established program academic requirements and standards as described in the course syllabi, University catalog, and Student Handbook;
2. Self-monitoring their academic performance in all required courses;
3. Completing all course-related requirements in a timely and satisfactory manner;
4. Seeking assistance if encountering academic difficulty;
5. Contacting the appropriate Program Director and/or course coordinator when performance has been unsatisfactory; and
6. Regularly checking mailbox and e-mail at least twice a week and daily, respectively, for information concerning educational programs. This is particularly important at the end of the quarter when information concerning academic performance may be distributed.

Satisfactory Academic Progress

Undergraduate Degree Programs: The academic standing of a student is determined by the student's cumulative grade point average. A student enrolled in an undergraduate degree program must pass all courses and maintain a cumulative grade point average of 2.25 or higher to have made satisfactory academic progress.

Professional Graduate Degree Programs: The academic standing of a student is determined by the student's cumulative grade point average. A student enrolled in a graduate degree program must pass all courses and maintain a cumulative grade point average of 2.75 or higher to have achieved satisfactory academic progress.

Arizona Podiatric Medicine Program (AZPod): The academic standing of a student is determined by the student's cumulative grade point average. A student enrolled in AZPod must pass all courses and maintain a cumulative grade point average of 2.00 or higher to have achieved satisfactory academic progress.

Master of Science in Nurse Anesthesia Program: The academic standing of a student is determined by the student's cumulative grade point average. A student enrolled in the Nurse Anesthesia Program must pass all courses and maintain a cumulative grade point average of 3.00 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a “B” or higher in all clinical anesthesia courses including, NAAP 432, 433, 434, 444, 520, 521, 522, 523, and 524.

Unsatisfactory Academic Progress

If a student fails to make satisfactory progress in completing his/her prescribed course of study, he/she is placed on academic warning, academic probation, administrative probation, academic suspension, or dismissal.

Students will be notified by the Dean when they are placed on academic warning. Any student with academic deficiencies to be addressed by the Program Student Academic Review Committee shall be notified in writing with a delivery confirmation (i.e., express mail, e-mail, certified US mail, hand-delivery) by the Chair of the Program Student Academic Review Committee at least 2 working 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 Program Student Academic Review Committee in order to present his/her case. In such instances, the student shall inform the Chair of the Program Student Academic Review Committee in writing, of his/her desire to appear before the committee or his/her 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.

In all instances, the Chair of the Program Student Academic Review Committee shall be responsible for informing the CHS Dean, in writing, as to the basis and specifics of each decision made by the committee. The CHS Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices and for resolving any incongruency.

The Chair of the Program Student Academic Review Committee is responsible for providing notification in writing with a delivery confirmation (i.e., express mail, e-
mail, certified US mail, hand-delivery) to the involved student, informing him/her of the decision of the committee, including dismissal for academic reasons. Notice of dismissal must be delivered in writing with a delivery confirmation (i.e., express mail, e-mail, certified US mail, hand-delivery) within two working days following the decision of the committee. Absent an appeal, the recommendation of the committee shall be final. Once the course of action to be followed has been finalized, the Dean shall be responsible for providing written notification of the action taken to all appropriate academic support offices (i.e., Registrar, Student Financial Services, etc). With the exception of dismissal, all decisions of the Program Student Academic Review Committee shall be implemented by the Program Director. Academic dismissal shall be implemented by the CHS Dean.

**Satisfactory Academic Progress Continued**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Usual Action*</th>
<th>Transcript Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory professional behavior; no course failures; and cumulative GPA ≥ 3.00 (Nurse Anesthesia) or ≥ 2.75 (graduate programs) or ≥ 2.25 (undergrad. programs) or ≥ 2.00 (AZPod)</td>
<td>Allowed to progress to the next quarter</td>
<td>—</td>
</tr>
<tr>
<td>Satisfactory professional behavior; no course failures; and one quarter of cumulative GPA &lt; 3.00 (Nurse Anesthesia) or &lt; 2.75 (graduate programs) or &lt; 2.25 (undergrad. programs) or &lt; 2.00 (AZPod)</td>
<td>Academic warning or academic probation for the subsequent quarter</td>
<td>Academic warning and academic probation are not noted on the transcript.</td>
</tr>
<tr>
<td>Satisfactory professional behavior; one course failure**; and/or two quarters of cumulative GPA &lt; 3.00 (Nurse Anesthesia) or &lt; 2.75 (graduate programs) or &lt; 2.25 (undergrad. programs) or &lt; 2.00 (AZPod)</td>
<td>Academic probation for the subsequent quarter and one of the following: a) Retake of the failed course if eligible b) Academic suspension for up to one year until course is retaken or any requirements for re-entry established by the program have been met c) Administrative probation d) Extended course of study Note: Students already on an extended course of study or when returning from LOA/administrative probation/suspension may be subject to suspension or dismissal after one course failure or failure to maintain the required cumulative GPA.</td>
<td>“F” grade is listed on transcript and is counted toward GPA calculation. Following successful retake of the course, the original “F” grade remains on the transcript as an “F” but is no longer factored into the GPA calculation. The new grade will be factored into the GPA.</td>
</tr>
<tr>
<td>Satisfactory professional behavior; two course failures**; and/or three quarters of cumulative GPA &lt; 3.00 (Nurse Anesthesia) or &lt; 2.75 (graduate programs) or &lt; 2.25 (undergrad. programs) or &lt; 2.00 (AZPod)</td>
<td>a) Academic suspension*** and probation, or b) Administrative probation and academic probation, or c) Extended course of study and academic probation, or d) Dismissal</td>
<td>Academic suspension, administrative probation, or dismissal are noted on transcript.</td>
</tr>
<tr>
<td>Unsatisfactory professional behavior regardless of academic performance</td>
<td>Disciplinary probation, suspension or dismissal</td>
<td>Disciplinary probation is not noted on transcript, but is kept in the student’s file in the offices of the CHS Dean and Student Services. Suspension or dismissal are noted on transcript.</td>
</tr>
</tbody>
</table>

* May be modified by the Program Student Academic Review Committee or the CHS Student Promotion and Graduation Committee.
** W/F may be considered as a course failure by a Program Student Academic Review Committee.
***May or may not be preceded by academic warning/probation.
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 when a student earns a cumulative GPA below the minimum GPA required by their program for one quarter. An academic warning is in effect for one quarter. When a student is placed on academic warning, it is not noted in 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 cumulative GPA required by their 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, which, if continued, will necessitate suspension or dismissal from the program and the College. Academic probation typically occurs when the student fails a class during his/her academic program and/or obtains a cumulative GPA below the minimum required by his/her respective program for a second quarter. Academic probation ends when a student achieves the required minimum cumulative GPA for the probationary quarter. When a student is placed on academic probation, it is noted in the student’s academic file in the program office. To return to good academic standing, a student must correct deficiencies and incur no further failures. Subsequently, when the student is returned to good academic standing, this is also noted in the student’s file.

A second course failure during the probationary period and/or a third quarter in which the cumulative GPA is below the minimum required by the program will typically result in dismissal. The course failures and/or the three-quarters with less than the required minimum cumulative GPA do not have to be consecutive.

Academic Suspension
Academic suspension may occur when a student has failed one or more courses or has accumulated two or more quarters when the cumulative GPA is less than required by his/her program. Academic suspension may or may not be preceded by academic probation. This action entails the removal 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. Academic suspension is noted on the student’s transcript.

The student who has been suspended does not have to reapply for admission and is guaranteed reentry into his/her academic program upon successful completion of all deficient 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.

Administrative Probation
Administrative probation may occur when a student is not allowed to progress in the standard program curriculum due to course failures and/or failure to maintain the required cumulative GPA for two or more quarters. When students are placed on administrative probation by the Program Student Academic Review Committee, they 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.

Administrative probation is noted on the student’s transcript. Administrative probation/leave of absence will be noted on the transcript for periods of non-enrollment during the administrative probation period.

Advanced Placement/Exemption from Coursework
A student may request exemption from coursework based on previous coursework and/or experience. All requests for advanced standing by newly admitted, transfer, or enrolled students are processed on a course-by-course basis. The student must submit a written request to the course director responsible for the course in which advanced standing is requested, and must have earned a grade of "C" or better. All requests must be submitted prior to the start of the course being considered. Any appeal of a decision not to exempt the student is made to the CHS Dean.

Appeal Process
Following notification of a decision from the Program Student Academic Review Committee, a student may appeal the decision. He/she has three working days to submit a formal written appeal of the decision to the CHS Dean. The appeal must be submitted in writing and delivered to the appropriate campus co-chair of the CHS Student Promotion and Graduation Committee and the Office of the Dean within this 3-day period. A narrative explaining the basis for the appeal should accompany the request. The student must attend all classes in which they are registered until the appeal process is complete. An appeal must be based on one of the following premises:

1. Bias of one or more members of the Program Student Academic Review Committee.
2. Material, documentable information not available to the committee at the time of its initial decision.
3. Procedural error.

The co-chair of the CHS Student Promotion and Graduation Committee will select a subcommittee that will review student appeals from their respective campus. A subcommittee reviewing a student appeal must have three or more CHS Student Promotion and Graduation committee members.
members from the respective campus where the student resides. Additionally, a majority of faculty members on each subcommittee must be from outside the program from which the student is appealing. The subcommittee will review and assess the student’s appeal. Any student requesting an appeal shall be notified in writing with a delivery confirmation (i.e., express mail, e-mail, certified US mail, hand-delivery) by the Chair of the Appeal Subcommittee at least two working 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 Appeal Subcommittee in order to present his/her case. In such instances, the student shall inform the Chair of the Appeal Subcommittee, in writing (i.e., express mail, e-mail, certified US mail, hand-delivery), of his/her desire to appear before the committee or his/her 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. The Subcommittee Chair submits the recommendation to the Dean. The Program Student Academic Review Committee may also appeal the recommendation of the Promotion and Graduation Appeal Subcommittee to the CHS Dean. The CHS Dean makes the final decision and then notifies the student, the Program Student Academic Review Committee, and the CHS Student Promotion and Graduation Appeal Subcommittee.

Auditing a Course for Remedial Purposes
The Program Student Academic Review Committee may determine at their discretion that a student who has not satisfactorily completed all required course work from the previous academic quarter may be recommended for enrollment in previously taken course work on a temporary, audit basis. Status as a temporary, course-auditing student under these circumstances enables a student to attend classes, receive handouts, and participate in various course activities; however, the student may do so only on a non-graded basis. So long as the student remains in the course as an auditing student, he/she is not eligible to take any exams or in any way participate in formal or informal evaluations with respect to learning or other outcome measures. No course credits or grades may be earned for an audited course. In addition, the student may not be eligible to receive any financial aid disbursements. Depending on course load, students may be charged additional tuition for audited courses. The tuition rate for audited courses is normally half of the regular hourly tuition rate.

Class Standing
To achieve the status of a second-, third-, or fourth-year student in a professional program of the College, students must have completed all academic requirements for the preceding year (i.e., first, second, or third year) of the professional program curriculum.

Course Credit
Course credits are generally determined according to the following formula: one credit is assigned to a course for 2–4 laboratory contact hours per week; two contact hours per week involving interactive group problem-solving or discussion sessions; or one contact hour of formal lecture per week. One credit is given for each week of clinical rotations.

Course Prerequisites
Prerequisites for courses may be established by the department 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 approval by the chair of the department that delivers the course.

Criminal Background Checks
Some facilities now require criminal background checks of students who are rotating through their system. The criminal background check is valid for one year only, so it must be performed within the year prior to starting the rotation. The Office of Student Services of Midwestern University will perform the background check. The costs are included in the activity fee.

Some facilities may require the student to meet a different requirement, such as fingerprinting at a designated agency immediately prior to the start of the rotation. If the Midwestern University background check does not meet a facility’s requirement, other procedures must be performed at the student’s expense. Criminal background information will be shared with clinical sites that are affiliated with Midwestern University educational programs.

Disciplinary Probation
Disciplinary 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 the 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.

Extended Course of Study
It is possible to decelerate an academic course load if there are extraordinary circumstances. Accordingly, an individual’s academic course load may be reduced so that the student enters what is termed an extended course of study. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually not to exceed 150% of the normal time-to-completion of the program (i.e., a program normally of two years’ duration ordinarily will not be extended beyond three years). The formulation of the extended course of study is the responsibility of the Program Student Academic Review
Committee in consultation with the Registrar and must be approved by the CHS Dean. Any student requesting or placed in an extended program is advised to meet with the Office of Student Financial Services to review the implications, if any, of this action on his/her financial aid status and eligibility. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met.

**Personal Hardship:** If a student is experiencing unusual stresses in life and a modified academic load could alleviate added stress, the student may petition the program director for an extended course of study. This petition is not automatically granted and is approved only in exceptional circumstances. Interested students are advised to consult with the Program Director to ascertain whether an extended course of study is offered by that program. The Program Director is responsible for evaluating the petition and submitting a recommendation concerning a student’s request for an extended course of study to the Program Student Academic Review Committee. If recommended for approval, this recommendation is submitted to the CHS Dean. The CHS Dean is responsible for notifying the student that his/her request has been approved.

**Academic Reasons:** A student may be placed on an extended program for academic reasons at the discretion of the Program Student Academic Review Committee and 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 standing until the extended program is completed. If a student is placed on an extended program, such action does not modify or limit either the Program Student Academic Review Committee or the CHS Student Promotion and Graduation Committee actions for dismissal. Thus, the student may be dismissed for academic reasons while on an extended program. Students on an extended course of study may be subject to suspension or dismissal after one course failure or failure to maintain the required cumulative GPA. A student placed on an extended program for academic reasons will be returned to good academic standing when he/she re-enters the prescribed academic program and completes all courses or clinical rotations that were unsatisfactory and are required for graduation.

It is the responsibility of the chair of this committee to inform the Dean, Registrar, and the Office of Student Financial Services whenever an extended course of study has been adopted and approved by the committee. Only matriculated students may request placement in an extended course of study. The Program Director is responsible for evaluating the request and determining eligibility for placement in the extended curricular track approved by the Program Student Academic Review Committee. Once the CHS Dean has authorized this change in status, the student is immediately placed in this track. In addition, the CHS Dean is responsible for notifying all academic support areas affected by this status change (e.g., Registrar, Office of Student Financial Services, etc).

**Faculty Mentor Program**

The CHS academic programs assign a faculty mentor to students in each entering class. The faculty mentor assists with academic and non-academic problems. In addition to these faculty mentors, the CHS Dean and the Dean of Students are also available to assist students with academic advising, counseling, enrichment, and non-academic problems. The faculty members volunteer their time and their effort to the success of this program. It is, however, the student who determines the amount of interaction.

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 his/her selection of a career within the profession.

**Grade Appeal 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 reporting 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. Bias.
2. Mathematical error in calculating the final grade.
3. Factual errors in course assessment tools.

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 his/her 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 his/her Program Student 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 course grade must be submitted within 24 hours following reporting of the grade and must be based on one of the premises stated above. The course director must act on this appeal within 24 hours. Any appeal of this decision will be addressed by the course director’s supervisor. The student is responsible for notifying the chair of the Program Student 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 a written form (i.e., express mail, e-mail, certified US mail, hand-delivery).

Grade Point Average

The grade point average (GPA) 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 for courses with a grade of withdrawal (W), withdrawal failing (WF), withdrawal passing (WP), pass (P) or fail (F) that were repeated. 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 grade remains on the transcript but only the new grade is used in the computation of the GPA.

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 for all students admitted prior to or in Summer Quarter 2007:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent (%)</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93–100</td>
<td>4.000</td>
<td>—</td>
</tr>
<tr>
<td>A–</td>
<td>90–92</td>
<td>3.750</td>
<td>—</td>
</tr>
<tr>
<td>B+</td>
<td>87–89</td>
<td>3.250</td>
<td>—</td>
</tr>
<tr>
<td>B</td>
<td>83–86</td>
<td>3.000</td>
<td>—</td>
</tr>
<tr>
<td>B–</td>
<td>80–82</td>
<td>2.750</td>
<td>—</td>
</tr>
<tr>
<td>C+</td>
<td>77–79</td>
<td>2.250</td>
<td>—</td>
</tr>
<tr>
<td>C</td>
<td>70–76</td>
<td>2.000</td>
<td>—</td>
</tr>
<tr>
<td>D</td>
<td>60–69</td>
<td>1.000</td>
<td>“D” grades are only given in the Bachelor of Biomedical Science program.</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60</td>
<td>0.000</td>
<td>Only for Bachelor of Biomedical Science program.</td>
</tr>
<tr>
<td>F</td>
<td>&lt;70</td>
<td>0.000</td>
<td>For professional programs</td>
</tr>
<tr>
<td>I</td>
<td>—</td>
<td>0.000</td>
<td>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 director. By assigning an “I” grade, it is implied that a course director agrees that the student has a valid reason and should be given additional time to complete required coursework. To resolve an incomplete grade, a course director must fill out and submit a Change of Grade form to the Registrar. All incomplete grades must be resolved within 10 working days starting from the first Monday following the end of the quarter unless there is written authorization by the Dean to extend the deadline. If an incomplete grade remains beyond the 10 days, it may be converted to a grade of “F,” which signifies failure of the course.</td>
</tr>
<tr>
<td>P</td>
<td>—</td>
<td>0.000</td>
<td>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.</td>
</tr>
<tr>
<td>W</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal during the first three weeks of the quarter. There is no penalty and no credit.</td>
</tr>
<tr>
<td>W/P</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal/Passing is given between the start of the fourth week and the end of the eight week of the quarter 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.</td>
</tr>
<tr>
<td>Grade</td>
<td>Percent (%)</td>
<td>Quality Points (per credit)</td>
<td>Comments</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>W/F</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal/Failing is given between the start of the fourth week and the end of the eight week of the quarter if the work completed up to the time of withdrawal is below a &quot;C&quot; level (&quot;D&quot; for Bachelor of Biomedical Science students). This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Program Student Academic Review Committee. Multiple F’s and W/F’s can be grounds for dismissal. Unless there are exceptional circumstances, students are not allowed to withdraw from a course after the end of the eighth week of the quarter.</td>
</tr>
<tr>
<td>AU</td>
<td>—</td>
<td>0.000</td>
<td>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 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.</td>
</tr>
<tr>
<td>AP</td>
<td>—</td>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>

The letter grades, percent ranges, and quality points per credit are as follows for all students admitted in Summer Quarter 2008 or thereafter:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent (%)</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
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<tr>
<td>A</td>
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<td>4.000</td>
<td>—</td>
</tr>
<tr>
<td>A–</td>
<td>90–92</td>
<td>3.670</td>
<td>—</td>
</tr>
<tr>
<td>B+</td>
<td>87–89</td>
<td>3.330</td>
<td>—</td>
</tr>
<tr>
<td>B</td>
<td>83–86</td>
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<td>—</td>
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<tr>
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<td>2.330</td>
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<td>60–69</td>
<td>1.000</td>
<td>&quot;D&quot; grades are only given in the Bachelor of Biomedical Science program.</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60</td>
<td>0.000</td>
<td>Only for Bachelor of Biomedical Science program.</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 70</td>
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<td>For professional programs</td>
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<tr>
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<td>—</td>
<td>0.000</td>
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</tr>
<tr>
<td>P</td>
<td>—</td>
<td>0.000</td>
<td>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.</td>
</tr>
<tr>
<td>W</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal during the first three weeks of the quarter. There is no penalty and no credit.</td>
</tr>
<tr>
<td>W/P</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal/Passing is given between the start of the fourth week and the end of the eight week of the quarter 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.</td>
</tr>
<tr>
<td>Grade</td>
<td>Percent (%)</td>
<td>Quality Points (per credit)</td>
<td>Comments</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-----------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>W/F</td>
<td>—</td>
<td>0.000</td>
<td>Withdrawal/Failing is given between the start of the fourth week and the end of the eight week of the quarter if the work completed up to the time of withdrawal is below a &quot;C&quot; level (&quot;D&quot; for Bachelor of Biomedical Science students). This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Program Student Academic Review Committee. Multiple F's and W/F's can be grounds for dismissal. Unless there are exceptional circumstances, students are not allowed to withdraw from a course after the end of the eighth week of the quarter.</td>
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<tr>
<td>AU</td>
<td>—</td>
<td>0.000</td>
<td>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 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.</td>
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<tr>
<td>AP</td>
<td>—</td>
<td></td>
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</tbody>
</table>

**Graduation**

The degrees of Master of Medical Science in Physician Assistant Studies, Doctor of Physical Therapy, Master of Arts in Clinical Psychology, Doctor of Psychology in Clinical Psychology, Master of Occupational Therapy, Master of Science in Biomedical Sciences, Bachelor of Biomedical Science, Master of Biomedical Science, Master of Arts in Biomedical Science, Master of Arts in Bioethics, Master of Health Professions Education, Master of Cardiovascular Science, Master of Science in Nurse Anesthesia, and Doctor of Podiatric Medicine will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements.

**Graduation Walk-Through Policy**

A student who has not satisfied academic requirements for a particular degree may seek permission to participate in a graduation ceremony for his/her program/College if the student will complete all academic requirements for the degree within one quarter immediately following the official scheduled end of the academic program for his/her class.

To seek permission, the student must submit a formal, signed letter of request in writing to participate in the graduation ceremony. The letter should be addressed to the CHS Dean. The letter must state the reason for the request, a timeline for completion of all academic requirements for the degree which shows that all degree requirements will be met within one quarter immediately following the official scheduled end of the academic program. The letter should be submitted no later than eight weeks prior to the official graduation date for his/her program/College.

The CHS Dean is responsible for verifying that all of the requisite information is in the letter, and that the information is correct. The CHS Dean then forwards the letter to the Program Student Academic Review/Student Promotion and Graduation Committee for consideration.

The Program Student Academic Review/Student Promotion and Graduation Committee is responsible for reviewing the student’s request. Each request is considered based on its individual merits. If approved, the committee will add the student to the proposed list of candidates for graduation, denote on the listing that the student will not have completed the academic requirements by the official graduation date, and then forward the list of candidates to the CHS Dean.

The CHS Dean will then forward the list of candidates for graduation to the MWU Faculty Senate for review and approval at an appropriately scheduled meeting, prior to the official graduation date.

The Faculty Senate will forward the list of approved candidates for degrees to the University President for review and approval by the Board of Trustees.

In all cases, students who walk through will not receive a diploma.

**Honors**

Graduation honors are awarded to candidates for all undergraduate degrees who have distinguished themselves by virtue of high academic achievement while enrolled in a professional program at Midwestern University. Only grades from academic courses taken at the University will be included in determining graduation honors. Degrees with honor are awarded based on the level of academic achievement as follows:

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Graduation Honor</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;3.75</td>
<td>Summa cum laude</td>
</tr>
<tr>
<td>3.50–3.74</td>
<td>Magna cum laude</td>
</tr>
<tr>
<td>3.25–3.49</td>
<td>Cum laude</td>
</tr>
</tbody>
</table>
Immunization Policy
Full-time students enrolled in a program with a clinical component are required to have all immunizations as outlined in the general policy section of the Student Handbook. Full-time students enrolled in a program without a clinical component are required to have all immunizations but are not required to have titers. Part-time and at-large students enrolled in a program without a clinical component are required to have all immunizations or titers.

National Boards for Doctor of Podiatric Medicine
Each student in AzPod must pass Part I and take Part II of the examination given by the National Board of Podiatric Medical Examiners (NBPME) as partial fulfillment of the requirements for graduation. Part I includes general anatomy, lower extremity anatomy, biochemistry, physiology, medical microbiology/immunology, pathology and pharmacology. Part II includes medicine, radiology, orthopedics/biomechanics/ sports medicine, community health/jurisprudence, surgery/anesthesia and hospital protocol.

Part I is taken following the completion of the second academic year and Part II is taken during the fourth year. To be excused from taking this examination at the prescribed time, the student must have prior approval of the Director of the Podiatric Medicine Program.

Registration, test center regulations, preparations for the examinations and many more details are available at the following URL: http://www.nbpme.info/Exams.htm

Re-examination (Retest)
Re-examination occurs when a student fails a course, but qualifies for a re-examination. It is the prerogative of the course director to offer or not offer a re-examination for a course failure and to determine the eligibility criteria for a re-examination. If a course director has a re-examination policy, it should be stated in the course syllabus.

If a student qualifies for a re-examination, a grade of "I" should be submitted to the Registrar at the end of the quarter. The re-examination(s) must be completed within 10 working days beginning from the first Monday following the end of the quarter. If the student passes the re-examination, the grade of "I" will be converted to the minimal passing grade of the college/program. If the student fails the re-examination, the grade of "I" will be converted to a grade of "F". If the Registrar does not receive a change of grade form within 10 working days, the "I" will automatically be changed to a grade of "F".

Retake
Retake occurs when formal repetition of an entire course or a portion of the course is required due to course failure, or in some programs when a "D" letter grade has been earned. A course may be retaken when:
1. no re-examination is offered by the course director.
2. the student has failed the re-examination.
3. the student fails to meet eligibility criteria for re-examination, if offered by the course director.

It is the decision of the Student Promotion and Graduation/Academic Review Committee of each College/program to recommend retake of a course. The Academic Review Committee following department approval will determine the nature of the retake and the time frame for completion of the repeated course. The course may be repeated at MWU or at an outside institution. The options for repeating a course at MWU may include a directed readings remedial course with examinations to repeating the course in its entirety the next academic year. In either case, the student must be registered for the course and will be charged the appropriate tuition. A repeated course at an outside institution must be approved by the department/program 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 in order to apply the credit toward MWU degree requirements. Students are responsible for all costs associated with repeating a failed course at another institution.

If the student passes a repeated course, the original failure remains on the transcript as an "F." The failed course is no longer used in the computation of the GPA following repeat of the course. The new grade will be factored into the overall GPA.

Under exceptional circumstances, such as academic probation or administrative probation, a student may retake a course in which they have received a grade of "C." The Program Director and CHS Dean must approve this retake option. 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.

Transfer Policy
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 in accordance with the procedures described below.

Intercampus transfer requests will be considered only if the addition of a student to the class at the corresponding campus will not cause enrollment to exceed the capacity and enrollment limit established for that campus. To be eligible for intercampus transfer consideration, the student must be in good academic standing at the time of the request. Prior to accepting a transfer request for consideration, the student
shall be required to document that he/she has sought and received financial aid counseling about the implications of a campus transfer.

No request for transfer shall be considered if the request is received by the program after clinical placement assignments have been completed for that student. Any approved transfer that is executed by the student is final; requests to return to the original campus will not be considered. Approved transfers may be executed only at the conclusion of an academic quarter; however, it is strongly recommended that they occur at the end of academic year, rather than during the academic year.

Procedure

1. A student seeking an intercampus transfer is encouraged to submit his/her written transfer request and supporting documentation to the Program Director prior to January 15th. The request must specify the intended date of the transfer. The supporting documentation must also include evidence of financial aid counseling and understanding of any financial aid implications of a transfer. Students must meet with the Program Director to discuss their intent to request a transfer prior to doing so.

2. All requests will be reviewed and acted upon within 10 working days of receipt.

3. The Program Director shall inform the CHS Dean of the intercampus transfer request.

4. The Program Director shall review and assess the merits and advisability of the transfer based on the governing principles of this policy.

5. The Program Director shall present his/her findings and conclusions to the CHS Dean and submit a written response to the student within this 10-day period.

6. All approved requests will be signed by the Program Director and countersigned by the CHS Dean prior to distribution to the student.

7. Denial of an intercampus transfer request may be appealed to the CHS Dean, only if the existence of an enrollment vacancy at the intended campus can be demonstrated.

8. Following receipt of the letter from the Program Director informing the student of the decision to deny the transfer request, the student has 5 working days to submit a written appeal to the CHS Dean.

9. To be considered, an appeal must be based on substantial new information, documentable evidence of bias, or procedural error by the program.

10. The CHS Dean shall review and act upon any appeal within 10 working days after receipt of the written appeal.

11. The CHS Dean shall review and assess the appeal of the intercampus transfer request based on the governing principles of this policy.

12. The CHS Dean shall prepare a written response to the student concerning the appeal decision with a copy to the Program Director.

13. The decision of the CHS Dean is final.

Travel for Clinical Education/Fieldwork

The professional programs of CHS require that the students receive instruction in a clinical setting. As a result, it will be necessary for students to make arrangements for transportation and lodging to clinical facilities. The University does not generally provide for the cost of transportation or lodging. Travel arrangements are the sole responsibility of the student. 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 responsible for all expenses associated with clinical education, such as transportation, meals, housing, professional attire, laboratory fees, etc.

Withdrawal from Courses

Any student who wishes to withdraw from one or more courses must first receive approval from their respective course directors. Following approval by the course directors, the withdrawal must be approved by the Program Director and the CHS Dean. If the approval is granted, the student receives one of the following grades: W (withdrew), W/P (withdrew passing), or W/F (withdrew failing).

Withdrawal (W) can be given only during the first three weeks of the course. There is no penalty and no credit. Between the start of the fourth week and the end of the eighth week of the quarter, if work completed up to the time of withdrawal is satisfactory, the student will receive a Withdrawal/Passing (W/P) grade. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. Between the start of the fourth week and the end of the eighth week of the quarter, if work completed up to the time of withdrawal is below a “C” level (“D” for Bachelor of Biomedical Science students), the student will receive a Withdrawal/Failing (W/F) grade. This grade is not counted in any GPA calculations and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Program Student Academic Review Committee when reviewing the academic status of a student. Multiple F’s and W/F’s can be grounds for dismissal.

Unless there are exceptional circumstances, a student will not be allowed to withdraw from a course after the end of the
eight week of the quarter. In the event of exceptional circumstances, the student who withdraws from a course will get a W/P or W/F based on performance.

**Withdrawal from the College/University**

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

Students contemplating withdrawal must inform the CHS Dean of the decision to voluntarily withdraw and voluntarily relinquish his/her position in the program. The student must contact the Dean’s Office and must complete the appropriate clearance procedures. The withdrawal process includes the clearing of all financial obligations to MWU and an exit interview. 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 his/her program without complying with the above procedures. For more information, see the Student Financial Services sections on Notification of Withdrawal and Return of Title IV Funds/MWU Refund Policy.
MISSION
The mission of the Midwestern University Physician Assistant (PA) Program is to:

• Create an educational environment that enables individuals to become competent physician assistants who possess the clinical skills to contribute positively to the dynamic health care needs of society.
• Stimulate involvement in the professional community by assuming leadership roles and to uphold the mission of the College of Health Sciences and Midwestern University.

ACCREDITATION
The PA Program was previously accredited by the Committee on Allied Health Education and Accreditation, and by the Commission on Accreditation of Allied Health Education Programs. The Program is fully accredited by its successor agency, the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA), 12000 Findley Road, Suite 240, Duluth, GA 30097, 770/476-1224.

DEGREE DESCRIPTION
Midwestern University’s Master of Medical Science (M.M.S.) in Physician Assistant Studies is a continuous, full-time program extending 27 months from matriculation to graduation. The PA Program offers professional education at the master’s level for students who aspire to become physician assistants. The curriculum provides students with the academic and clinical training necessary to gain certification and to practice as competent, reliable extenders of the licensed physician. The goal of the PA educational program is to provide an academic and clinical training environment that will prepare the physician assistant to be certified and have the required knowledge and experience to perform his/her professional role in a competent and reliable manner.

The professional curriculum is a full-time program that offers students the opportunity to earn the master’s degree and satisfy the eligibility requirements for the PA national certifying examination. The roles and specific clinical duties and responsibilities that graduates can expect to experience will likely vary depending on their chosen career path. The PA 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 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. Sites include ambulatory practice settings, small and large office-based group practices, community and migrant health centers, inpatient settings involving large and small hospitals as well as federal and state facilities. These sites are in urban, suburban, and rural communities. 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 patient diversity.

The specific objectives of this program are to:

• Teach the basics of biomedical and clinical knowledge and technical skills at a level that is required for students to be competent PAs. The emphasis is on primary care practice;
• Provide an ample experiential foundation that prepares students to perform the tasks, functions, and duties of a PA in diverse practice settings;
• Mold students as professionals, instilling an appropriate professional demeanor and sensibility and imparting an understanding of the nature and impact of mental and physical disease in patients, which will enable students to respond appropriately to patient problems in both ambulatory and hospital settings;
• Cultivate the fundamental ethical and moral attitudes, principles, and behaviors that are essential to acquiring and sustaining the confidence of colleagues, other health
care professionals in the practice setting, patients, and the community;

- Broaden the base and depth of biomedical, scientific, and clinical knowledge and skills imparted to physician assistants by providing a foundation conducive to competent scholarly inquiry and analysis.

**ADMISSIONS**

The Midwestern University PA Program considers applicants who possess the academic and professional promise necessary to become competent, caring members of the health care community. The admissions environment is highly selective with more than 1,000 applications received each year. The application deadline is October 1st; however, applicants are encouraged to apply early.

Completed applications received on or before the application deadline are reviewed to determine the applicant’s eligibility to attend an Applicant Assessment Day. The following criteria are used to select the most qualified candidates: cumulative and science grade point average, GRE scores, letters of recommendation, health care experience, knowledge of the profession, and motivation for wanting to become a PA. Competitive candidates are typically invited to campus during the months of September through January.

**Requirements**

1. Possess a minimum cumulative GPA of 2.75 on a 4.0 scale.
2. Submit scores from the Graduate Record Examination (GRE) general test by the October 1st deadline. The test must have been taken no earlier than January 1, 2004. The Midwestern University institution code for the GRE is 1769. Applicants are expected to achieve a score at or above the 50th percentile in each section. For additional information about the GRE, contact Educational Testing Services (ETS) at 866/473-4373, or visit www.gre.org.
3. Complete prerequisite courses as listed below from a regionally accredited college or university. All prerequisite courses must be completed with a grade of a C, C+, or higher before matriculation. A grade of C- will NOT be accepted for any prerequisite course. Life experience credits do not count toward fulfillment of any prerequisite course. Courses in which "credit" or a grade of "pass" is earned will be counted only if the applicant can provide verification that the grade earned was equivalent to a "C", "C+", or better.
4. Satisfactory completion of all prerequisites MUST be completed by December 31 of the year which precedes the applicant’s anticipated matriculation. NO EXCEPTIONS WILL BE MADE. It is the applicant’s responsibility to find out which prerequisites are missing and which course must be taken to fulfill any outstanding prerequisites. Students invited to attend the Applicant Assessment Day must show documentation on the day of their visit that they are enrolled in or registered for any outstanding prerequisites.
5. Possess a bachelor’s degree from a regionally accredited college or university before matriculation.
6. Reflect proper motivation for and commitment to health care as demonstrated by previous work, volunteer or other life experiences.
7. Reflect a people/service orientation through community service or extracurricular activities.
8. Possess the oral and written communication skills necessary to interact with patients and colleagues.
10. Abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
11. Successfully complete all required immunizations.

**Prerequisite Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Biology (with lab)</td>
<td>8 Sem/12 Qtr hours</td>
</tr>
<tr>
<td>General Chemistry (with lab)</td>
<td>8 Sem/12 Qtr hours</td>
</tr>
<tr>
<td>Organic Chemistry (with lab)</td>
<td>4 Sem/6 Qtr hours</td>
</tr>
<tr>
<td>Math (college algebra or above)</td>
<td>3 Sem/4 Qtr hours</td>
</tr>
<tr>
<td>Statistics</td>
<td>3 Sem/4 Qtr hours</td>
</tr>
<tr>
<td>English Composition</td>
<td>6 Sem/9 Qtr hours</td>
</tr>
<tr>
<td>Sociology, Psychology, or Anthropology</td>
<td>6 Sem/9 Qtr hours</td>
</tr>
</tbody>
</table>

*All science prerequisites must be courses designed for science majors. No survey courses will count to fulfill science prerequisites.

**Application Process**

1. **CASPA Application**
   
   Completed applications with all required materials must be submitted to the Centralized Application Service for Physician Assistants (CASPA) at www.caspaonline.org by **October 1, 2008**. Please refer to the CASPA application instructions for specific details about completing the application, required documents, and processing time. CASPA applications are typically available beginning in June 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. 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 www.caspaonline.org. The Office of Admissions will only accept letters of recommendation received directly from CASPA. It is preferred that one letter be from a science professor who has actually taught the student or a
pre-health advisory committee. The second letter can be from any one of the following: pre-health advisory committee, pre-health advisor, college professor, or healthcare professional (preferably a PA) who knows the applicant well. Please refer to the CASPA application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. **GRE Scores**

Applicants are required to submit official GRE general test scores to Midwestern University. The MWU institutional code for submitting scores is 1769. Only test scores earned during the previous five years (no earlier than January 2004) and sent directly from the Educational Testing Service (ETS) will be accepted.

4. **Completed Applications**

Upon receipt of a completed CASPA application with all required materials, the Office of Admissions will send applicants who meet the minimum overall GPA requirement of 2.75 a letter verifying receipt of the CASPA application. The letter will also include instructions on checking the status of application materials online. Applicants must also submit official GRE general test scores to Midwestern University. It is the applicant’s responsibility to track the receipt of their application materials and to ensure the submission of all required documents. Only applicants who submit 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 requests for withdrawing an application must be done in writing via email, fax, or letter. Contact information for the Office of Admissions is listed below.

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

**Interview/Selection Process**

Completed applications are reviewed to determine if the applicant merits an invitation to attend an on-campus visit. Selected qualified applicants are invited to campus to attend a mandatory Applicant Assessment Day. The Applicant Assessment Days are typically scheduled during the months of September through January.

Applicants selected to attend an Applicant Assessment Day will be notified by letter or telephone of available dates. Attendance at one of the Applicant Assessment Days is required before a final admissions decision can be made on an applicant’s file.

The Applicant Assessment Day provides selected applicants with an opportunity to learn more about the Program and University. The day will provide applicants with an opportunity to meet with representatives from the PA Program, Office of Admissions, Student Financial Services, and Student Services. In addition, the day will include a writing exercise which will be evaluated by the PA Admissions Committee and a small group interview session facilitated by faculty members.

Once an applicant attends an Applicant Assessment Day, the applicant’s file is sent to the Admissions Committee for a final admissions decision. The committee reviews the complete application for each candidate that attends an Applicant Assessment Day and submits a recommendation to the Program Director for action. The CHS Dean, via the Office of Admissions, then notifies each applicant in writing of the admissions decision. All completed applicants will receive notification regarding their status in writing by the end of March.

**Please Note:** Applicants invited for an Applicant Assessment Day occurring before December 31st are required to bring documentation that any outstanding coursework is in progress (this can be done by providing a copy of a class schedule or a transcript listing the coursework). 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 for admission set forth by the Physician Assistant Program establish the expectations and requisite abilities considered essential for students admitted to this Program to achieve the levels of competency stipulated for graduation by faculty, the professional program accrediting agency (ARC-PA) and the State of Illinois.

A candidate must have abilities and skills in five areas: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. 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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. 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.
III. 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.

IV. 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.

V. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her 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.

Matriculation Process
The matriculation process begins after an applicant receives notification of his/her acceptance into the PA Program. The student must submit both a signed matriculation agreement and deposit to the Office of Admissions by the deadline date. To conclude the matriculation process, a student must do the following:

1. Submit deposit monies by the date designated in his/her matriculation documents — the entire deposit is applied toward the student’s first-quarter tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar 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 made by the Office of the Dean of the College. If students fail to submit all official final transcripts by the stated deadline, their acceptance or continued enrollment in the College may be jeopardized. CASPA does not forward transcripts to schools; therefore, it is the student’s responsibility to forward official transcripts from all the schools attended directly to Midwestern University, Illinois Campus.
3. Successfully complete all outstanding prerequisites with the grade of a “C,” “C+,” or higher by December 31 of the year which precedes the applicant’s matriculation. A “C–” will NOT be accepted for any prerequisite course.
4. Complete a medical file as requested by the Office of Student Services.
5. Submit proof of medical insurance. The student may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of the student’s choice.
6. ILLINOIS RESIDENTS: Submit proof of Illinois residency if requested by MWU.
7. PERMANENT RESIDENTS: Submit a copy of permanent resident alien card.
8. INTERNATIONAL STUDENTS: Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS (for F-1 visa students only).
9. Provide documentation that any additional coursework requirements stipulated by the Admissions Committee of the Program has been completed.
10. Submit additional documents as required by the Office of Admissions.
11. Complete physical exam and submit form.
12. Sign authorization allowing a criminal background check.
13. Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
14. Sign Credit Policy Statement
15. Provide proof of completed required immunizations.

If the student either fails to satisfy these matriculation requirements or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat in the program. Any individual accepted for admission to the PA Program who does not comply with stated timelines for submission of all required materials receives no further notification from CHS relative to forfeiture of his/her seat.

Reapplication Process
After receiving either a denial or an end-of-cycle letter, a prospective student 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, the prospective student must complete and submit a new application through CASPA and proceed through each step of the entire application process.

Graduation Requirements
Students usually complete the Master of Medical Science in Physician Assistant Studies degree in nine consecutive quarters, 27 months. To qualify for the master’s 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 with a minimum cumulative grade point average of 2.75 and no course or rotation grade below a "C" or "Pass”;
3. Satisfactorily complete the Summative Examinations;
4. Satisfactorily complete the required credit hours in the overall course of study;
5. 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;
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.

CERTIFICATION/LICENSURE REQUIREMENTS
To practice in most states, including Illinois, 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 200, Duluth, GA 30097-1409; [678/417-8100]; www.nccpa.net

CURRICULUM
First Professional Year
Total Quarter Credit Hours Required 77

Summer Quarter
ANAT 0450 Human Anatomy/Embryology with Gross Anatomy Lab 7
BIOT 0411 Human Biology 3
BIOT 0452 Clinical Biochemistry and Nutrition 3
PASS 0453 Clinical Medicine I 4
PASS 0454 Professional Seminar I 1
PASS 0540 Biopsychosocial Issues 2
Total 20.0

Fall Quarter
ANAT 0465 Human Neurosciences 3
CORE 1399 Health Care Issues 1
PASS 0463 Clinical Medicine II 4
PASS 0464 Physical Diagnosis 3
PASS 0516 Research Seminar II 3
PHAR 0484 Pharmacology I 3
PHYS 0460 Human Physiology I 3.5
Total 20.5

Winter Quarter
MICR 0476 Immunology 2
PASS 0472 Psychiatric Principles 2
PASS 0473 Clinical Medicine III 6
PASS 0517 Research Seminar II 3
PHAR 0485 Pharmacology II 3
PHYS 0470 Human Physiology II 3.5
Total 19.5

Spring Quarter
BIOC 0481 Human Genetics 1
MICR 0482 Infectious Diseases 4
PASS 0475 Professional Seminar II 2
PASS 0483 Clinical Medicine IV 6
PASS 0521 Introduction to Capstone Project 1
PHAR 0486 Pharmacology III 3
Total 17.0

Second Professional Year
Total Quarter Credit Hours Required 55.5

Summer Quarter
PASS 0770 Advanced Clinical Medicine I 3
PASS 0551-0559 Required Clinical Rotations 12
Total 15

Fall Quarter
PASS 0522 Independent Study in Capstone Project I 0.5
PASS 0551-0559 Required Clinical Rotations 12
Total 12.5

Winter Quarter
PASS 0522 Independent Study in Capstone Project I 0.5
PASS 0771 Advanced Clinical Medicine II 3
PASS 0551-0559 Required Clinical Rotations 12
Total 15.5

Spring Quarter
PASS 0522 Independent Study in Capstone Project II 0.5
PASS 0551-0559 Required Clinical Rotations 12
Total 12.5

Third Professional Year
Total Quarter Credit Hours Required 12.5

Summer Quarter
PASS 0522 Independent Study in Capstone Project II 0.5
PASS 0772 Advanced Clinical Medicine III 4
PASS 0665 Elective Clinical Rotation I 4
PASS 0666 Elective Clinical Rotations II 4
Total 12.5
Required Clinical Rotations

PASS 0551 Internal Medicine Rotation 6
PASS 0552 Behavioral Medicine Rotation 6
PASS 0553 General Surgery Rotation 6
PASS 0554 Emergency Medicine Rotation 6
PASS 0555 Family Medicine Rotation 6
PASS 0556 Geriatric Medicine Rotation 6
PASS 0558 Women’s Health Rotation 6
PASS 0559 Pediatric Medicine Rotation 6
PASS 0665 Elective I Rotation 4
PASS 0666 Elective II Rotation 4
Total 56

The MWU CHS Physician Assistant Program reserves the right to alter its curriculum however and whenever it deems appropriate.

COURSE DESCRIPTIONS

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description, it is implied that there is no prerequisite.

ANAT 0450 Human Anatomy/Embryology with Gross Anatomy Lab
This course presents lectures and laboratory (human cadaver prosection, microscopy) sessions emphasizing the embryologic development of the human body, the relationship between body structure and function, and the use of gross human anatomy in physical diagnosis.
7 credits (including laboratory sessions)

ANAT 0465 Human Neurosciences
This is an integrated, interdisciplinary course in which students learn to identify and describe the principal structural components and corresponding functions of the nervous system and correlate underlying lesions involving these structures with neurologic deficits and dysfunctions. Emphasis is given to understanding various aspects of the human neurosciences, such as the anatomy and physiology of pain (its origin, interpretation, and management), basic neurologic tests, and differentiation of commonly occurring disease states likely to be encountered in professional practice.
3 credits
Prerequisites: ANAT 0450 Human Anatomy/Embryology with Gross Anatomy Lab

BIOC 0451 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.
3 credits

BIOC 0452 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.
3 credits

BIOC 0481 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.
1 credit
Prerequisite: BIOC 0451 Human Biochemistry

CORE 1399 Health Care Issues
Changes in our health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The various roles health care professionals play on a medical team will be introduced to the students using practitioner-patient demonstrations utilizing a surrogate patient. Additional lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA) and the concept of biomedical research.
1 credit

MICR 0476 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.
2 credits
Prerequisite: BIOC 0452 Clinical Biochemistry and Nutrition

MICR 0482 Infectious Diseases
This didactic course covers infectious diseases, their etiologic agents, differential diagnoses and disease management. Through the use of patient cases, diagnostic algorithms and integrative self-studies, students learn problem-solving skills.
The course includes hands-on experiential laboratory sessions and laboratory-based patient cases which augment didactic material and provide insight into clinical microbiological laboratory procedures and an evidence-based approach to diagnoses in the infectious diseases context.
4 credits
Prerequisite: BIOC 0452 Clinical Biochemistry and Nutrition

PASS 0453 Clinical Medicine I
Medical interviewing skills will be introduced through formal lectures and developed through small case groups and patient interviews. The skills, knowledge, and sensitivity needed to communicate and intervene effectively in a variety of psychosocial situations are presented. Communication and improving patient rapport will also be discussed in relationship to the various life cycles.
4 credits

PASS 0454 Professional Seminar I
This course presents and discusses the clinical practice, role, and responsibilities of physician assistants. Professional behavior, cultural and social awareness, and the future of the physician assistant profession will be discussed. The interaction of health care providers within various clinical settings will also be examined.
1 credit

PASS 0455 Clinical Medicine II
A systems-oriented approach will introduce common diseases and syndromes, their underlying pathophysiology (including signs and symptoms), patient evaluation (historical, physical examination, and diagnostic studies), differential diagnosis, and basic therapeutic concepts will be discussed. Acute exacerbations of chronic diseases and emergency care will be integrated as appropriate. Formal lectures, case group discussions, and problem-based learning techniques will all be utilized.
4 credits
Prerequisite: PASS 0453 Clinical Medicine I

PASS 0464 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 problem-based learning will be employed.
3 credits
Prerequisite: PASS 0453 Clinical Medicine I

PASS 0472 Psychiatric Principles
This course presents the biopsychosocial model to normal and abnormal growth and development concepts, patient interview techniques, mental status examination, and the origins of clinical reasoning.
2 credits
Prerequisite: PASS 0540 Biopsychosocial Issues

PASS 0473 Clinical Medicine III
A systems-oriented approach will introduce common diseases and syndromes, their underlying pathophysiology (including signs and symptoms), patient evaluation (historical, physical examination, and diagnostic studies), differential diagnosis, and basic therapeutic concepts will be discussed. Acute exacerbations of chronic diseases and emergency care will be integrated as appropriate. Formal lectures, case group discussions, and problem-based learning techniques will all be utilized.
6 credits
Prerequisite: PASS 0463 Clinical Medicine II

PASS 0475 Professional Seminar II
This course traces the evolution of medical concepts and the professional role of the physician assistant, basic concepts for quality health care delivery, and significant changes in diagnostic and therapeutic techniques. Bioethical issues that arise during the provision of health care services will also be discussed. In addition, medicolegal aspects of healthcare and preparation for clinical practice will be reviewed. Finally, formal HIPAA training that reviews the appropriate legal and ethical considerations of privacy law will be discussed.
2 credits
Prerequisite: PASS 0454 Professional Seminar I

PASS 0483 Clinical Medicine IV
The course will focus on pediatric, gynecologic, obstetric, and geriatric issues. Therapeutic skills (phlebotomy, common procedures, and the interpretation of specific diagnostic modalities) will be elaborated. Formal lectures, case groups, and laboratory sessions will be utilized.
6 credits
Prerequisite: PASS 0473 Clinical Medicine III

PASS 0516 Research Seminar I
This course is designed to provide an overview of the scientific method including quantitative, conceptual and modal analysis, research techniques and research design methods. Elementary statistical techniques will be reviewed including an introduction to probability, measurement theory, correlational and regression analysis, sampling and significance tests and statistical inference. Both research design and statistical topics will be presented in the context of
effective review of the medical literature for the purpose of
application to patient populations and medical problems.
3 credits

PASS 0517 Research Seminar II
This course is designed to build upon the foundation
presented in Research Seminar I and will introduce the
student to the concept and application of Evidence-Based
Medicine. Students will review basic epidemiology and
population-based statistical analysis. The course will provide
the student with the essential tools for writing in medical
settings including communication through research review
papers, proposals, letters to the editor and poster
presentations.
3 credits
Prerequisite: PASS 0516 Research Seminar I

PASS 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 complete
a comprehensive literature review. This literature review will
serve as the foundation for the completion of the other
components of the Capstone Project which include two
evidence-based medicine projects, a patient education project
and the design and implementation of a Power Point of the
entire Capstone portfolio.
1 credit
Prerequisite: PASS 0517 Research Seminar II

PASS 0522 Independent Study in Capstone Project I & II
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,
application of evidence-based medicine techniques, creation
of effective patient and community education materials, and
a final presentation/dissemination of the materials collected.
0.5 credits per quarter
Prerequisite: PASS 0521 Introduction to Capstone Project

PASS 0540 Biopsychosocial Issues
The course presents the historical, philosophical, and
practical foundations of allied health sciences and behavioral
medicine. The models of human behavior and mind include
Psychodynamic/Psychoanalytic, Behavioral,
Developmental/Lifecycle, Cognitive-Behavioral Theories and
the Biopsychosocial Model. The student will be introduced
to the relationship between physical illness, injury/recovery,
and behavioral medicine principles.
2 credits

PASS 0551 Internal Medicine Rotation
Six-week clinical rotation in an Internal Medicine setting.
6 credits

PASS 0552 Behavioral Medicine Rotation
Six-week clinical rotation in a Behavioral Medicine setting.
6 credits

PASS 0553 General Surgery Rotation
Six-week clinical rotation in a General Surgery setting.
6 credits

PASS 0554 Emergency Medicine Rotation
Six-week clinical rotation in an Emergency Medicine setting.
6 credits

PASS 0555 Family Medicine Rotation
Six-week clinical rotation in a Family Medicine setting.
6 credits

PASS 0556 Geriatric Medicine Rotation
Six-week clinical rotation in a Geriatric Medicine setting.
6 credits

PASS 0558 Women’s Health Rotation
Six-week clinical rotation in an Obstetrics/Gynecology
setting.
6 credits

PASS 0559 Pediatric Medicine Rotation
Six-week clinical rotation in a Pediatric Medicine setting.
6 credits

PASS 0665 Elective I Rotation
Four-week clinical rotation in a specialty of the student’s
choosing (subject to approval by the Program).
4 credits

PASS 0666 Elective II Rotation
Four-week clinical rotation in a specialty of the student’s
choosing (subject to approval by the Program).
4 credits

PASS 0770 Advanced Clinical Medicine I
This course is designed to build upon the student’s
foundation of clinical medicine knowledge and to prepare
him or her to begin clinical year rotations. Lectures will
provide advanced information and instruction covering a
range of medical topics including interpretation of
electrocardiograms, basic life support for health care
providers and advance cardiovascular life support, and other
topics that will facilitate students’ continuing development of
knowledge and skills in patient assessment, medical decision-making, and clinical management skills.
3 credits

PASS 0771 Advanced Clinical Medicine II
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, and students will build upon their physical examination skills in small group practical and discussion sessions.
3 credits
Prerequisite: PASS 0770 Advanced Clinical Medicine I

PASS 0772 Advanced Clinical Medicine III
This course is designed to build upon the student’s foundation of clinical medicine knowledge. Guest lecturers with clinical expertise in a variety of fields will provide advanced information and instruction. In addition, students will receive updates on clinical practice issues. During the course, students will receive an intensive week of lecture topics to help them prepare for the Physician Assistant National Certifying Examination (PANCE). Students will also focus on professional issues in preparation for graduation and clinical practice.
4 credits
Prerequisite: PASS 0771 Advanced Clinical Medicine II

PHAR 0484, 0485, 0486 Pharmacology I, II, 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.
3 credits per quarter
Prerequisites: ANAT 0450 Human Anatomy/Embryology

PHYS 0460, 0470 Human Physiology I and 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.
3.5 credits per quarter
Prerequisite: BIOC 0452 Clinical Biochemistry and Nutrition

FACULTY
Sharon A. Blattner, MEd, PA-C
National-Louis University
College of Arts and Sciences
Assistant Professor

Phoebe A. Foltz, MMS, PA-C
Midwestern University
College of Allied Health Professions
Clinical Coordinator and Assistant Professor

Kristine M. Healy, MPH, PA-C
University of Illinois at Chicago
School of Public Health
Assistant Professor

David A. Luce, MMS, PA-C
Midwestern University
College of Health Sciences
Assistant Professor

Lendell Richardson, MD
Loyola University of Chicago
Stritch School of Medicine
Medical Director and Assistant Professor

Kara N. Roman, MMS, PA-C
Midwestern University
College of Allied Health Professions
Associate Program Director and Assistant Professor

Alyson L. Smith, MS, PA-C
Finch University of Health Sciences/The Chicago Medical School
School of Related Health Sciences
Program Director and Assistant Professor
MISSION
The Physical Therapy Program shall prepare entry-level physical therapists to provide physical therapy services at a variety of points across the health care continuum. Integrating physical, clinical, and behavioral sciences in an interdisciplinary environment, graduates are prepared to fulfill their roles as physical therapists. These roles include direct patient care (physical therapy examination, evaluation, diagnosis, prognosis, and intervention), consultation, education, critical inquiry, and health promotion. The program provides the foundation for graduates to promote health and maximize human movement, as well as make valuable contributions to society, health care, and the profession through community service, education, and scholarly inquiry.

ACCREDITATION
The Physical Therapy Program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 N. Fairfax St., Alexandria, VA 22314-1488; 703/684-2782.

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 health care team and as an integral part of the health care delivery system. The general education, professional training, experience, and personal character development of physical therapists uniquely prepare them to coordinate care related to functional improvement and functional disability.

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 is open on a competitive admissions basis to applicants having bachelor’s degrees in any field but who have not completed an accredited physical therapy program. The 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, health care, and the profession through leadership activities and collaborative efforts with others in physical therapy and interdisciplinary education, practice, and research.

Program Objectives
Upon completion of the Doctor of Physical Therapy Program, graduates are expected to be able to:

1. Integrate and clinically apply current basic science, applied science, and professional knowledge;
2. Be self-directed learners, confident clinical decision makers, team players, independent practitioners, managers, and leaders;
3. Prevent and reduce the incidence and severity of impairment, functional limitation, and disability;
4. Provide high-quality and cost-effective diagnostic and treatment-based physical therapy services;
5. Understand, critically evaluate, and apply scientific research;
6. Respond sensitively to the diverse health care needs of patients, caregivers, and society;
7. Acquire and sustain the confidence of patients, caregivers, colleagues, and community members by demonstrating high levels of competence, accountability, ethical standards, and moral behavior;
8. Practice within a clinically autonomous and collaborative framework;
9. Participate in the dynamic evolution of physical therapist roles and responsibilities, including the promotion of health and wellness; and
10. Provide physical therapy services in traditionally underserved rural and urban communities.

These objectives are accomplished through:
1. An innovative impairment- and disability-based curriculum;
2. A spiral curriculum pattern permitting continual integration at increasingly complex levels of understanding;
3. A strong content foundation in the physical, clinical, and behavioral sciences;
4. Problem-based and case-based learning experiences integrating scientific knowledge with clinical expertise;
5. An emphasis on critical thinking, clinical decision-making, outcomes analysis, and evidence-based practice;
6. An educational environment designed to promote learning;
7. Opportunities for teamwork, delegation, supervision, and leadership;
8. Several professional course sequences requiring students to build on prior knowledge and expand their skills;
9. A sequence of simulated and actual clinical experiences across the curriculum; and
10. Team teaching methods.

Time Limit for Completion of Coursework
The Doctor of Physical Therapy Program is a continuous, full-time program, extending 34 months from matriculation to graduation. The maximum allotted time for completion of the doctorate program is 52 months.

ADMISSIONS
The College of Health Sciences Physical Therapy Program considers for admission those students who possess the academic and professional promise necessary to become competent, caring members of the health care 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 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, 2008. Please refer to the PTCAS website for instructions on submission of your PTCAS application materials.

The Physical Therapy program operates on a rolling admissions basis where completed applications are reviewed throughout the admissions cycle to determine the applicant’s eligibility for an interview. Interviews are typically conducted during the winter or spring. Admission decisions are generally made within one month of the interview.

Admission Requirements
1. Possess a bachelor’s degree from a regionally accredited college or university.
2. Possess a minimum overall grade point average (GPA) of 2.75 on a 4.0 scale.
3. Complete prerequisite courses: 44 semester/64 quarter credits, as listed below, from a regionally accredited college or university; no grade less than a “C” will be accepted for any prerequisite course.
4. Submit Graduate Record Examination (GRE) general test scores; the test must have been taken no earlier than January 1, 2004. The Midwestern University institution code for the GRE is 1769.
5. Complete a first aid course within the past three years.
6. Possess current certification by the American Heart Association in Basic Life Support (BLS) for Health Care Providers. (Enrolled PT students must also maintain CPR certification at the BLS level.)
7. Reflect a people/service orientation through community service or extracurricular activities.
8. Reflect proper motivation for and commitment to health care as demonstrated by previous work, volunteer or other life experiences.
9. Possess the oral and written communication skills necessary to interact with patients and colleagues.
10. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy;
11. Pass a criminal background check.

Prerequisite Courses

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<thead>
<tr>
<th>Science Courses:</th>
<th>4 Semester/6 quarter hours</th>
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<tbody>
<tr>
<td>Biology with lab</td>
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<tr>
<td>Vertebrate Anatomy (2 cr.) with</td>
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<td>lab</td>
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<tr>
<td>Physiology (2 cr.) with lab</td>
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<tr>
<td>General Chemistry with lab</td>
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<td>General Physics with lab</td>
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<th>2 Semester/3 quarter hours</th>
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<th>8 Semester/12 quarter hours</th>
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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 recommended) 9 semester/13 quarter hours
Social & Behavioral Sciences (at least one each: psychology and sociology) 9 semester/13 quarter hours

INTERNATIONAL STUDENTS: Must complete a minimum of 30 semester hours of coursework in the United States. Of the 30 semester hours, 6 hours must be in non-remedial English composition, and 3 hours in speech/communication.

Application Process and Deadline
1. PTCAS Application
Applicants are required to submit an application with all required materials to the Centralized Application Service for Physical Therapy Schools (PTCAS) at http://www.ptcas.org by December 15, 2008. 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 on August 1, 2008. 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 be from a science professor who has actually taught the student or a pre-health advisory committee. The second letter can be from any one of the following: pre-health advisory committee, pre-health advisor, college professor, or healthcare professional (preferably a PT) who knows the applicant well. Please refer to the PTCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. GRE Scores
Applicants are required to submit official GRE general test scores directly to Midwestern University. The MWU institutional code for submitting your scores is 1769. Only test scores earned during the previous five years (no earlier than January 2004) and sent directly from the Educational Testing Service (ETS) will be accepted.

4. Completed Applications
Upon receipt of your PTCAS application with all required materials, the Office of Admissions will send all applicants who meet the minimum overall GPA requirement of 2.75 a letter verifying receipt of the PTCAS application. The letter will also include instructions on checking the status of your required application materials online. Please remember that all applicants must also submit official GRE general test scores to Midwestern University to complete their applications. It is the applicant’s responsibility to track the receipt of their application materials and to ensure 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 requests for withdrawing an application must be done in writing via email, fax, or letter. Contact information for the Office of Admissions is listed below.

Office of Admissions
Midwestern University
555 31st Street
Downers Grove, IL 60515
e-mail: admisil@midwestern.edu
Fax: 630/971-6086

Interview/Selection Process
If after reviewing the completed admissions file the applicant is considered eligible for an interview, the applicant is notified of available interview dates and invited by the Office of Admissions to schedule an on-campus interview. The applicant must contact the Office of Admissions to schedule an interview date.

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 the financial aid office.

During each interview session, the interviewer questions the applicant about his/her academic, personal, and professional aspirations and preparedness for admission to the program, rating the prospective student on a standardized evaluation form. These evaluations are made a part of the applicant’s file, which is then made available to the Physical Therapy Admissions Committee. The Physical Therapy Admissions Committee meets periodically to review the files of applicants who have been interviewed. The Committee reviews the full application file for each applicant who was interviewed and
then formulates and submits its recommendation to the Dean for final approval. The Dean, via the Office of Admissions, notifies each applicant in writing of the admissions decision.

**Technical Standards for Admission**

A candidate must have abilities and skills in five areas: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. 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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. 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.

III. 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 (for example, the physical therapy program requires a candidate to be able to move at least 50 pounds vertically and horizontally).

IV. 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.

V. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her 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.

**Matriculation Process**

The matriculation process begins after an applicant receives notification of his/her acceptance into the Physical Therapy Program of the College. The student must return both a signed matriculation agreement and deposit to the Office of Admissions. The student must also:

1. Submit deposit monies by the dates designated in his/her matriculation agreement—the entire deposit is applied toward the student’s first-quarter tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the college. If students fail to submit all official final transcripts by the stated deadline, their acceptance or continued enrollment in the college may be jeopardized.
3. Submit proof of immunization against measles, mumps, rubella, oral polio (opv), diphtheria, and hepatitis B.
4. Provide evidence of testing for tuberculosis within the last 12 months. A titer verifying immunity to the previously mentioned diseases may be required.
5. Submit proof of medical insurance coverage. The student may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of the student’s choice.
6. Submit proof of Illinois residency (this applies only to those students claiming Illinois residency).
7. For non-U.S. citizens/nonpermanent residents only, provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS.
8. Provide documentation that any additional coursework or service requirements stipulated by the Admissions Committee of the program has been completed.
10. Submit additional documents as required by the Office of Admissions.
11. Sign authorization form allowing a criminal background check
12. Sign the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
13. Complete physical exam and submit form.
14. Sign Credit Policy Statement
If the student either fails to satisfy the above matriculation requirements or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat in the program. Any individual accepted for admission to the Physical Therapy Program of the College of Health Sciences, who does not comply with stated time lines for submission of all required materials, receives no further notification from CHS relative to forfeiture of his/her seat.

**Dual Acceptance Program—University of St. Francis**
The Physical Therapy Program has a dual acceptance agreement with the University of Saint Francis, Fort Wayne, Indiana. Students may inquire about the agreement through the Office of Admissions at the University of Saint Francis and/or Midwestern University.

**Reapplication Process**
After receiving either a denial or end-of-cycle letter, a prospective student 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, the prospective student must complete and submit a new application and proceed through each step of the entire 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 with 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 nonphysician teaching assistants (NPTAs). Evaluations of student performance during the clinical practica will be formal and use established criteria developed by physical therapy clinical and academic educators.

**GRADUATION REQUIREMENTS**
University graduation and degree conferral ceremonies are held in May of each year for the Physical Therapy Program. To qualify for graduation, students must:

1. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.75;
2. Satisfactorily complete the required minimum of 167.5-quarter credit hours in the curriculum;
3. Receive a favorable recommendation for doctoral degree conferral from the Physical Therapy Academic Review Committee and the CHS Student Promotion and Graduation Committee;
4. Receive a favorable recommendation for doctoral 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.

**LICENSURE REQUIREMENTS**
After graduating from an accredited or approved 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.

**CURRICULUM**
The first academic year of the professional doctoral curriculum is composed of a four-quarter program consisting of 63.5 required course credits (quarter hours). The second academic year of the curriculum is composed of a four-quarter program consisting of 55 required course credits, including 520 clock-hours of clinical education. The third academic year of the curriculum is composed of a three-quarter program consisting of 49 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.

**Curriculum Structure, Course Quarter Hour Credits, and Sequencing**

<table>
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<th>First Professional Year</th>
<th>Total Quarter Credit Hours Required:</th>
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**Summer Quarter**

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<td>ANAT 0450</td>
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<td>BIOC 0453</td>
<td>Cell and Tissue Structure</td>
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<td>PTHE 0510</td>
<td>Health Professionalism I</td>
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**Fall Quarter**

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<tr>
<td>PHYS 0460</td>
<td>Human Physiology I</td>
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<td>PTHE 0530</td>
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<td>PTHE 0550</td>
<td>Health Promotion I</td>
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<td>PTHE 0570</td>
<td>Physical Therapy Roles and Professional Issues I</td>
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<td>PTHE 0575</td>
<td>Physical Therapy Evaluation I</td>
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<td>PTHE 0590</td>
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<td>PTHE 0517</td>
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<td>PTHE 0573</td>
<td>Human Neuroscience</td>
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**Second Professional Year**

**Total Quarter Credit Hours Required:** 55

**Summer Quarter**

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<tr>
<td>PHYS 0637</td>
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<td>PTHE 0598</td>
<td>Practicum I (3 weeks full-time)</td>
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<td>PTHE 0626</td>
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<td>PTHE 0690</td>
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<td>PTHE 0604</td>
<td>Cardiopulmonary Evaluation and Treatment</td>
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<td>PTHE 0634</td>
<td>Physical Agents I</td>
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<td>PTHE 0657</td>
<td>Orthotics</td>
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<td>PTHE 0675</td>
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**Winter Quarter**

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<td>PTHE 0635</td>
<td>Physical Agents II</td>
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<td>PTHE 0648</td>
<td>Management in Physical Therapy Systems</td>
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**Spring Quarter**

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**Elective Options:**

- BIOC 1670 Clinical Nutrition 1
- BISC 0512 Fundamentals of Research 2
- PHAR 0415 Medical Spanish 2
- PHAR 0534 Pharmacological Aspects of Drug Use 2
- PHYS 1654 Physiology of Obesity 2
- PTHE 0672 Advanced Physical Therapy Electives 1-4

The Midwestern University College of Health Sciences Physical Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.
COURSE DESCRIPTIONS

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed for a course description, it is implied that there is no prerequisite.

ANAT 0450 Human Anatomy I/Embryology
This course presents lectures and laboratory (human cadaver prosection, microscopy) sessions emphasizing the embryologic development of the human body, the relationship between body structure and function, and the use of gross human anatomy in physical diagnosis.
7 credits

BIOC 0453 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.
2 credits

CORE 1399 Health Care Issues
Changes in our health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The various roles health care professionals play on a medical team will be introduced to the students using practitioner-patient demonstrations utilizing a surrogate patient. Additional lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA) and the concept of biomedical research.
1 credit

PHYS 0637 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.
3 credits
Prerequisite: PHYS 0460 & 0470 Human Physiology I & II

PHYS 0460, 0470 Human Physiology I, 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.
3.5 credits per quarter
Prerequisite: BIOC 0453 Cell and Tissue Structure and Function

PTHE 0501 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 health care literature, assessing levels of evidence, and mapping clinical concepts are applied to physical therapist practice.
2 credits

PTHE 0510 Health Professionalism I
This course provides an introduction to professional behavior, systems and issues in health care delivery, and health care team members. The perspective of the patient/client is emphasized. Principles of confidentiality, professional ethics, standards of practice, patient rights, the Illinois Physical Therapy Act, and the Guide to Physical Therapist Practice are discussed. A combination of lecture, discussion, off-campus field experiences, and presentations will be used in the course.
2 credits

PTHE 0517 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. The course includes lecture, laboratory, discussion, and independent study.
3 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; BIOC 0453 Cell and Tissue Structure; PHYS 0460 & 0470 Human Physiology I & II; PTHE 0580 & 0581 Kinesiology/Biomechanics I & II
PTHE 0525 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.
4 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; BIOC 0453 Cell & Tissue Structure, PHYS 0460 & 0470 Physiology I and II; PTHE 0580 & 0581 Kinesiology/Biomechanics I & II

PTHE 0526 Medical Terminology
This course provides a basic introduction to medical terminology with a focus on body systems. Students complete 13 online 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.
0.5 credits

PTHE 0530 Research
Physical therapy practice embraces an evidence-based approach. This multidisciplinary course provides students with a basic understanding of the research process from the standpoint of a consumer of research. The core multidisciplinary research course is supplemented with weekly breakout sessions aimed at providing additional research-related material and examples relevant to physical therapy.
3 credits

PTHE 0540 Biopsychosocial Issues
This course introduces the student to behavioral medicine and the biopsychosocial issues that impact a patient’s health and wellness. Environmental and developmental influences and the biological/sociocultural determinants of behavior are explored. Special patient issues including the health challenges of obesity, substance abuse, interpersonal violence, aging, and issues of sexuality are covered. Emphasis is placed on patient care and the importance of effective practitioner-patient interaction.
3 credits

PTHE 0550 Health Promotion I
This course provides a conceptual framework for health promotion and disease/injury prevention across the life span, and discusses definitions of health promotion and disease/injury prevention; risk and its relation to disease; assessment of risk; interventions to promote health; constraints to health education programming including cultural issues, disability; evaluation of health promotion and disease/injury prevention programs; and the current roles of physical therapists and other health practitioners in health promotion and disease prevention.
2 credits

PTHE 0557 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, individual projects, and readings are used to achieve the course objectives.
2 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; PHYS 0460 & 0470 Human Physiology I & II; PTHE 0517 Lifespan Human Development; PTHE 0525 Clinical Conditions I; PTHE 0575 Physical Therapy Evaluation I; PTHE 0580 & 0581 Kinesiology/Biomechanics I & II; PTHE 0590 Physical Therapy Interventions I

PTHE 0560 Education Principles
This course provides the foundation for systematically designing, implementing and evaluating learning experiences. Topics include educational roles, learning and teaching principles, needs assessment, goal setting, writing objectives, instructional strategies, group facilitation, patient/family education, academic and peer professional teaching, evaluation of teaching and learning and a unit on scholarly writing. This course uses lecture, discussion, structured projects and simulated teaching.
3 credits

PTHE 0570 Physical Therapy Roles and Professional Issues I
This course, the first of three analyzing professionalism within physical therapist practice, emphasizes the roles and responsibilities of the physical therapist as clinician, educator, supervisor, consultant and scholarly writer. Students analyze professional issues such as professional associations, regulatory agencies, professional values, ethics, legal practice, professional development, autonomous practice, direct access, advocacy, legislative processes, and payment for services. This course uses lecture, discussion, and structured projects.
2 credits
Prerequisite: PTHE 0501 Clinical Problem Solving I; PTHE 0510 Health Professionalism I; PTHE 0540 Biopsychosocial Issues

PTHE 0573 Human Neuroscience
This course is the first of two neuroscience courses. This course provides students with the ability to identify and describe the principle structural components and corresponding functions of the nervous system, correlate nervous system lesion with neurological deficits/dysfunction seen in clinical practice, correlate neurological examination with structural components, and begin to relate neurophysiology with the theoretic basis for therapeutic approaches. This course uses lecture, laboratory sessions, and case studies.
3 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; PHYS 0460 & 0470 Human Physiology I & II

PTHE 0575 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. Lecture and laboratory formats are used.
4 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; BIOC 0453 Cell & Tissue Structure

PTHE 0576 Physical Therapy Evaluation II
This course builds on the principles 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.
3 credits
Prerequisites: PTHE 0580 Kinesiology/Biomechanics I; concurrent enrollment in PTHE 0590 Physical Therapy Interventions I

PTHE 0580 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.
3 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; BIOC 0453 Cell and Tissue Structure

PTHE 0581 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.
3 credits
Prerequisites: PTHE 0580 Kinesiology/Biomechanics I; concurrent enrollment in PTHE 0590 Physical Therapy Interventions I

PTHE 0590 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. Lecture, laboratory, and clinical visits are included.
2 credits
Prerequisites: PTHE 0501 Clinical Problem Solving I; PTHE 0575 Physical Therapy Evaluation I; PTHE 0580 Kinesiology/Biomechanics I; concurrent enrollment in PTHE 0581 Kinesiology/Biomechanics II

PTHE 0591 Physical Therapy Interventions II
This course presents physical therapy interventions including isometric, isotonic, isokinetic, eccentric and concentric strengthening activities; active and passive stretching; proprioceptive neuromuscular facilitation (PNF); principles
of musculoskeletal treatment and joint mobilization. Selected clinical conditions of the shoulder, elbow, and wrist and hand within a physical therapy framework are addressed. This course includes lecture, group discussions, and laboratory sessions.

2 credits
Prerequisites: PTHE 0525 Clinical Conditions I; PTHE 0560 Education Principles; PTHE 0581 Kinesiology/Biomechanics II; PTHE 0590 Physical Therapy Interventions I

PTHE 0597 Simulated Physical Therapy Clinic I
This course introduces the 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. 1 credit
Prerequisite: PHYS 0470 Human Physiology I; PTHE 0501 Clinical Problem Solving I; PTHE 0510 Health Professionalism I; PTHE 0530 Research; PTHE 0540 Biopsychosocial Issues; PTHE 0570 Physical Therapy Roles & Professional Issues I; PTHE 0575 Physical Therapy Evaluation I; PTHE 0580 Kinesiology/Biomechanics I; and concurrent enrollment in PTHE 0590 Physical Therapy Interventions I

PTHE 0598 Practicum I
This course is a three-week, full-time, supervised clinical practice in a health care environment. Students practice skills in communication, patient evaluation and management, infection control/standard precautions, and patient education. 3 credits
Prerequisites: Successful completion of all Physical Therapy Program courses through the spring quarter of the 1st year and a minimum overall GPA of 2.75

PTHE 0600 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. 3 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; PTHE 0580 & 0581 Kinesiology /Biomechanics I & II; PTHE 0575, 0576, & 0675 Physical Therapy Evaluation I, II, & III; PTHE 0590, 0591, 0690, & 0691 Physical Therapy Interventions I, II, III, & IV

PTHE 0602 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. 2 credits
Prerequisites: PTHE 0501 Clinical Problem Solving I; PTHE 0575 & 0576 Physical Therapy Evaluation I & II; PTHE 0590, 0591 & 0690 Physical Therapy Interventions I, II, & III

PTHE 0603 Scholarship in Physical Therapy
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. 1 credit
Prerequisites: PTHE 0530 Research; PTHE 0570 Physical Therapy Roles and Professional Issues I

PTHE 0604 Cardiopulmonary Evaluation and Treatment
This course provides students with the knowledge and skill to evaluate and treat clients with cardiopulmonary disorders. The role of the physical therapist in the acute care setting is highlighted and students learn evaluation & intervention techniques in both lecture and laboratory sessions. The level of evidence for various techniques, the effect of exercise on the cardiopulmonary system and contraindications for physical therapy are discussed. 4 credits
Prerequisites: PTHE 0576 Physical Therapy Evaluation II; PTHE 0626 Clinical Conditions II; PTHE 0690 Physical Therapy Interventions III

PTHE 0605 Clinical Problem Solving III
This is the last course in the Clinical Problem Solving series, designed to reinforce, enhance and self-assess the reasoning process used to make clinical decisions, focusing on the comprehensive management of patients with neurologic
dysfunction. Clinical application of motor-control theory is addressed. A combination of lecture, lab, discussion, completion of a standardized reasoning assessment, and evidence-based practice projects are utilized to achieve the course outcomes.

3 credits
Prerequisites: PTHE 0501 & 0602 Clinical Problem Solving I & II; PTHE 0675 Physical Therapy Evaluation III; PTHE 0691 Physical Therapy Interventions IV

PTHE 0606 Scholarly Development in Physical Therapy
Students develop an evidenced-based, publishable quality case report or systematic review. Students meet with their faculty advisor prior to Practicum II and work closely with the advisor writing up the case report or review, with an expectation that preliminary drafts will be submitted. After the written report is accepted, projects are presented orally as either a platform or poster presentation.

2 credits
Prerequisites: PTHE 0530 Research; PTHE 0570 Physical Therapy Roles/Professional Issues I; PTHE 0603 Scholarship in Physical Therapy

PTHE 0611 Simulated Physical Therapy Clinic II
This course introduces the 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.

1 credit
Prerequisites: PTHE 0540 Biopsychosocial Issues; PTHE 0597 Simulated Clinic I; PTHE 0598 Practicum I; PTHE 0602 Clinical Problem Solving II; PTHE 0634 Physical Agents I; concurrent enrollment in PTHE 0635 Physical Agents II; PTHE 0657 Orthotics; PTHE 0675 Physical Therapy Evaluation III; concurrent enrollment in PTHE 0691 Physical Therapy Interventions IV

PTHE 0619 Pediatric and Geriatric Interventions
This course explores physical therapy practice issues unique to children and older adults. Physical therapist practice in the neonatal intensive care unit, early intervention, educational settings, home care and geriatric rehabilitation are defined. Physical therapy evaluation and intervention strategies specific to infants, children, adolescents, and older adults are discussed. Issues related to legislation (Individuals with Disabilities Education Act and Medicare) are applied to patient management. Lecture, laboratory experiences, and independent study facilitate learning in this course.

3 credits
Prerequisite: PTHE 0517 Lifespan Human Development

PTHE 0626 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.

3 credits
Prerequisites: PTHE 0525 Clinical Conditions I; PTHE 0573 Human Neuroscience

PTHE 0627 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. The course format is a combination of lecture, case-based learning and independent study. Weekly quizzes and some discussions are online.

2 credits
Prerequisites: PHYS 0460 & 0470 Human Physiology I & II; PTHE 0525 & 0526 Clinical Conditions I & II; PTHE 0573 Human Neuroscience; PTHE 0604 Cardiopulmonary Evaluation and Treatment; PTHE 0673 Applied Neuroscience

PTHE 0634 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.

4 credits
Prerequisites: PHYS 0470 Human Physiology II; PTHE 0517 Lifespan Human Development; PTHE 0590, 0591 & 0690 Physical Therapy Interventions I, II, & III; PTHE 0673 Applied Neuroscience; PTHE 0675 Physical Therapy Evaluation III; and concurrent enrollment in PTHE 0602 Clinical Problem Solving II

PTHE 0635 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.

3 credits
Prerequisite: PTHE 0634 Physical Agents I

PTHE 0648 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 health care 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. The course uses a combination of lecture, interactive seminar, discussion and student presentations.

4 credits
Prerequisites: PTHE 0510 Health Professionalism I; PTHE 0550 Health Promotion I; PTHE 0570 Physical Therapy Roles and Professional Issues I; PTHE 0598 Practicum I

PTHE 0650 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.

2 credits
Prerequisite: PTHE 0550 Health Promotion I

PTHE 0657 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.

2 credits
Prerequisites: PTHE 0576 Physical Therapy Evaluation II; concurrent enrollment in PTHE 0675 Physical Therapy Evaluation III and PTHE 0690 Physical Therapy Interventions III

PTHE 0670 Physical Therapy Roles and Professional Issues II
This is the second in a series of three courses that analyze professionalism within physical therapist practice. The course focuses on the multiple roles, responsibilities and opportunities related to international practice, clinical instruction, delegation to and supervision of physical therapist assistants and physical therapy aides, licensure and regulation, employment and career development, and professional service and social responsibility. This course uses a combination of lecture, debate, and case analysis to analyze the depth and breadth of professional issues.

3 credits
Prerequisite: PTHE 0550 Health Promotion I; PTHE 0570 Physical Therapy Roles and Professional Issues I; PTHE 0648 Management in Physical Therapy Systems; PTHE 0679 Applied Management Skills in Physical Therapy Systems

PTHE 0671 Physical Therapy Roles and Professional Issues III
This is the third in a series of three courses that analyze professionalism within physical therapist practice. In this course, students gain practical experience as supervisors and consultants. Students also reflect on and evaluate their efficiency and effectiveness in these roles. Independent study methods are used to achieve the course objectives.

1 credit
Prerequisites: PTHE 0570 & 0670 Physical Therapy Roles and Professional Issues I & II

PTHE 0673 Applied Neuroscience
This course is the second of two neuroscience courses. This course provides students with the ability to identify and describe the structural components and corresponding functions of the nervous system and to correlate nervous system lesions with neurological deficits. This course also begins to analyze the traditional and contemporary neurotherapeutic approaches used as the foundation to evaluate and treat patients with neurologic dysfunction. The material is delivered using lecture, laboratory sessions, and case studies.

3 credits
Prerequisites: ANAT 0450 Human Anatomy I/Embryology; PHYS 0460 & 0470 Human Physiology I & II; PTHE 0573 Human Neuroscience

PTHE 0675 Physical Therapy Evaluation III
This is the third course in the Physical Therapy Evaluation series. Content includes examination of impairments, functional limitations, and disabilities in adults and children with neurological dysfunction. Topics include: motor control, muscle performance, reflex integrity, coordination, balance, vestibular system, functional mobility, gait, arousal and cognition, and home assessment. Students will learn how
to select, execute, and modify examination procedures in order to complete the neurological evaluation. Lecture and laboratory formats will be used in this course.

3 credits
Prerequisites: PTHE 0517 Life Span Human Development; PTHE 0525 Clinical Conditions II; PTHE 0576 Physical Therapy Evaluation II; PTHE 0580 Kinesiology/Biomechanics II; PTHE 0673 Applied Neuroscience

PTHE 0679 Applied Management Skills in Physical Therapy Systems
Students apply principles from PTHE 0648: 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. This course utilizes seminar, discussion, and lecture.

3 credits
Prerequisite: PTHE 0648 Management in Physical Therapy Systems

PTHE 0690 Physical Therapy Interventions III
This course builds on the principles introduced in Physical Therapy Interventions II and applies those principles to the spinal, temporomandibular, pelvic, and lower extremity joints. Clinical conditions affecting these areas of the body will be discussed as they relate to developing physical therapy intervention plans. Additional course content includes manual and mechanical spinal traction, spinal stabilization and ergonomic training as parts of physical therapy intervention. A combination of lecture, laboratory and discussion sessions are in this course.

3 credits
Prerequisites: PTHE 0576 Physical Therapy Evaluation II; PTHE 0591 Physical Therapy Interventions II

PTHE 0691 Physical Therapy Interventions IV
This is the fourth course in the Physical Therapy Interventions series. Content includes the design and implementation of a complete treatment plan for adults and children with neurological dysfunction. Topics include: use of motor control theory in the development of the treatment plan, implementation of treatment strategies and techniques for the attainment of functional goals, and practice of therapeutic interventions for the improvement of balance, vestibular disorders, posture, gait, and functional activities. Lecture, lab, and problem-based formats will be used.

5 credits (including laboratory sessions)
Prerequisites: PTHE 0517 Life Span Human Development; PTHE 0581 Kinesiology/Biomechanics II; PTHE 0602 Clinical Problem Solving II; PTHE 0626 Clinical Conditions II; PTHE 0657 Orthotics; PTHE 0673 Applied Neuroscience; PTHE 0675 Physical Therapy Evaluation III; PTHE 0690 Physical Therapy Interventions III

PTHE 0692 Physical Therapy Interventions V
This is the final course in the Physical Therapy Interventions series. Principles of evidenced-based practice are applied to clinical decision making skills when evaluating different interventions. Content includes: chronic pain, industrial medicine, complex wounds, women’s issues, and complex cardiovascular issues. Non-standard treatments are examined with an evidence-based focus. Motor control principles frame the management of progressive neurological disorders and complex chronic neurological conditions. Lecture, discussion, laboratory, and student-led formats will be used.

3 credits
Prerequisites: PTHE 0575, 0576, & 0675 Physical Therapy Evaluation I–III; PTHE 0590, 0591, 0690, & 0691 Physical Therapy Interventions I–IV; PTHE 0604 Cardiopulmonary Evaluation/Treatment

PTHE 0697 Practicum II
This course is a ten-week, full-time, supervised clinical practice in a health care 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 health care. Students earn 1 credit for the project.

11 credits
Prerequisites: PTHE 0598 Practicum I; successful completion of all Physical Therapy Program courses through the winter quarter of the 2nd year, and a minimum overall GPA of 2.75

PTHE 0698 Practicum III
This course is a ten-week, full-time, supervised clinical practice in a health care 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, students will submit one article review to the American Physical Therapy Association (APTA) “Hooked on Evidence” database.

11 credits
Prerequisite: PTHE 0697 Practicum II, successful completion of all Physical Therapy Program courses through the fall quarter of the 3rd year, and minimum overall GPA of 2.75
PTHE 0699 Practicum IV
This course is a ten-week, full-time, supervised clinical practice in a health care 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, students will submit one article review to the American Physical Therapy Association (APTA) “Hooked on Evidence” database. 11 credits
Prerequisite: PTHE 0698 Practicum III

ELECTIVES

BIOC 1670 Clinical Nutrition
Nutritional considerations are important in the prevention and management of many disease processes, and to the determination of overall health. Students will explore recent advances in clinically relevant nutrition through a variety of processes that may include case-based learning, online modules, and critical evaluation of research reports selected from the peer-reviewed biomedical literature. The precise format of the course varies from year to year.

2 credits

BISC 0512 Fundamentals of Research
This course introduces the topics of Responsible Conduct of Research and the Good Laboratory Practice (GLP) requirements and regulations of the FDA and EPA. Students also receive training in issues related to research on human subjects and animals, radiation safety, and biosafety.

2 credits

PHAR 0415 Medical Spanish
This elective provides medical, pharmacy, physician assistant and biomedical sciences students with the spanish vocabulary necessary to understand and converse in the fields of medicine and health care. The course has been designed to enhance communicating with the Latino patient as well as understanding cultural attitudes, which may impact medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations. Critical learning skills that students are encouraged to develop are cooperative learning and effective group dynamics.

2 credits
Prerequisite: Two years of high school or college Spanish

PHAR 0534 Pharmacological Aspects of Drug Use
This elective is designed to provide the student with an in-depth understanding of the pharmacokinetics and pharmacodynamics of the common drugs of abuse, including alcohol, cocaine, stimulants, hallucinogens, and opioids. Current theories regarding the physiologic basis of drug-seeking behavior and the development of drug dependence are presented. In addition, various social, legal and ethical aspects of the drug abuse problem are considered.

2 credits

PHYS 1654 Physiology of Obesity
This elective introduces students to the medical consequences of obesity. The motivation for this course is the high probability that most health professionals will have to consider the impact of obesity on the patient’s medical status. Students will be introduced to the epidemiology of obesity, measurement of body composition and physiological conditions. The psychosocial aspects of obesity, as well as the dietary, pharmacological, and surgical approaches used to treat obesity will be discussed.

2 credits

PTHE 0672 Advanced Physical Therapy Practice Electives
Physical Therapy students who have an overall GPA of 3.0 in Spring quarter of the second year may enroll for participation in up to 4 credits of the Advanced Physical Therapy electives. Students may elect to participate in one of the structured courses offered, design and implement an independent study course with a Physical Therapy Program faculty mentor, or complete 1-4 credits of a research elective with a Physical Therapy Program faculty member.

1-4 credits
Prerequisites: Overall GPA of 3.0 and successful completion of all Physical Therapy Program courses through the spring quarter of the second year.

FACULTY

Deborah Anderson, P.T., MS, PCS
Rosalind Franklin University
College of Health Professions
Co-Director of Clinical Education & Instructor

Judith Burton Hess, P.T., MS, OCS
Duke University
School of Medicine
Instructor

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Rosalind Franklin University
College of Health Professions
Program Director and Associate Professor

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Krannert School of Physical Therapy
Assistant Professor

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College of Medicine
Associate Professor
Kathy D. Hall, P.T., EdD
Northern Illinois University
College of Education
Associate Professor

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Department of Kinesiology
Assistant Professor

Janet O. Helminski, P.T., Ph.D.
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Institute for Neuroscience
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Associate Professor

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Northwestern University
School of Education and Social Policy
Associate Professor

Kathleen P. O’Hagan, Ph.D.
Rutgers, The State University of New Jersey
Graduate School-New Brunswick
Professor and Chair
Department of Physiology
MISSION
The mission of the Occupational Therapy Program is to educate and graduate highly competent and dedicated occupational therapists who possess the skills and expertise to embrace the occupational needs of individuals and communities. The program develops self-directed, responsive occupational therapists who are eager to advocate for their clients and the profession as a whole. To this end, the Occupational Therapy Program will:

- Support the university through teaching, scholarship and service
- Serve others through academic, scholarly, and experiential opportunities
- Foster innovative and empathic practitioners devoted to holistic and ethical practice

ACCREDITATION
Midwestern University’s Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220; Phone: 301/652-AOTA. Graduates of the program will be able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT).

DEGREE DESCRIPTION
The Occupational Therapy Program offers a curriculum leading to the Master of Occupational Therapy (M.O.T.) degree for qualified students. The full-time, continuous, entry-level master’s curriculum is designed to deliver the academic and clinical education required to prepare students for their professional role as key members of the health care team, and as integral practitioners in the health care delivery system. The curriculum for the Master of Occupational Therapy degree is a continuous, full-time program, extending 27 months from matriculation to graduation. The maximum allotted time for completion of this program is 40.5 months. The general education, professional training, experience, and personal character development of occupational therapists uniquely prepare them to respond to the needs of individuals who face challenges participating in their daily lives.

The Master of Occupational Therapy Program offers a balanced combination of foundational, clinical, and research coursework designed to foster therapists who are self-directed, thoughtful, and caring professionals. The Program provides students with a balanced complement of coursework. Approximately half of the course credits are obtained from foundational courses in the sciences, occupational theory, and research. The remaining credits focus on courses related to evaluation and interventions appropriate for various client populations (e.g., children, the elderly, etc.), specialized coursework in upper extremity intervention, and many opportunities for experiential (hands-on) learning. Our critical analysis and seminar courses facilitate students’ application of content related to client evaluation and treatment using community-based and case-based learning opportunities. In addition to such preclinical learning opportunities, our fieldwork program is extensive and rich in the types of experiences offered to our students. Such a strong curricular framework succeeds in preparing graduates who are ready – and able – to enter the profession of occupational therapy and to make a difference in the world.

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 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 experience provides the foundation for graduates to identify and contribute to effecting solutions to the major emergent health issues of our society and contribute to the academic and clinical education of future practitioners. It also is designed to prepare graduates for leadership and management roles in the profession. The graduate will be prepared to make meaningful, ongoing contributions to society, health care, and the profession through leadership activities and
collaborative efforts with others in occupational therapy and interdisciplinary education, practice, and research.

**Program Objectives**
The Occupational Therapy Program is guided by the following educational objectives:

1. To integrate liberal arts and science foundations and professional course work to prepare graduates to provide and manage a wide range of professional occupational therapy services in a competent, responsive, and caring manner for clients from diverse backgrounds in a wide range of health care settings;
2. To instill an appropriate professional sensibility and response to the impact of altered health and occupational performance on clients and their significant others;
3. To cultivate the fundamental ethical and moral attitudes, principles, and behaviors that are essential to acquiring and sustaining the confidence of clients and their significant others, colleagues, and other health care personnel in the professional or practice setting, and the support of the community at large;
4. To learn and apply clinical reasoning and critical thinking skills consistently to the occupational therapy process (receiving appropriate client referrals, performing appropriate client evaluations, establishing goals and client outcomes, developing treatment plans, providing appropriate treatments based on these plans and outcomes, re-evaluating the client and course of therapy, and client discharge planning);
5. To provide theoretical, analytical, and experiential foundations that prepare students to perform tasks, functions, and duties commensurate with the dynamic nature of occupational therapy and the changing role and responsibilities of the occupational therapist in a wide range of professional settings that depend on a strong clinical knowledge base but do not necessarily involve direct patient care;
6. To educate practitioners who will assume leadership roles in the development and/or implementation of new and innovative approaches intended to minimize the severity and impact of physical and psychosocial conditions on occupational performance;
7. To develop clinical reasoning and critical thinking skills that will prepare students to design and implement preliminary research studies that evaluate clinical practice and/or service delivery;
8. To prepare practitioners who will engage in systematic and comprehensive planning of client care services leading to more cost-effective care and more efficient utilization of health care resources;
9. To provide theoretical and experiential constructs for expanded professional contributions, including enhanced management skills, advocacy, and leadership roles in occupational therapy and interdisciplinary education, practice, and research;
10. To integrate and coordinate occupational therapy skills with those of other health care service providers to meet the needs of clients within an increasingly more complex and diverse health care delivery system;
11. To instill the desire for continued personal and professional growth through the development of and active participation in continuing educational experiences; and
12. To cultivate the fundamental ethical and moral attitudes and behaviors so that graduates are knowledgeable and adhere to the occupational therapy professional code of ethics and the profession’s rules, regulations, and scope of practice.

**Admissions**
The College of Health Sciences Occupational Therapy Program considers for admission those applicants who possess the academic and professional promise necessary to become competent, caring members of the health care community. To select these candidates, a rolling 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.

Applications received are reviewed by the Director of Admissions in conjunction with the OT Program Admissions Committee to determine the applicant’s eligibility for an interview. Admission decisions are made approximately one to two weeks after interviews have concluded.

**Admission Requirements**
Individuals applying for admission to the College of Health Sciences Occupational Therapy Program must satisfy the following minimum requirements before the academic year commences for the incoming class:

1. Possess a baccalaureate degree from a regionally accredited college or university;
2. Achieve a cumulative undergraduate grade point average (GPA) of 2.75 on a 4.00 scale (only grades of C or higher will be considered to fulfill prerequisite requirements);
3. Complete the minimum number of prerequisite courses in the prescribed subject areas at a regionally accredited college or university before the program begins;

4. Take and submit the Graduate Record Examination general test scores (optional for those with GPAs above 3.0). Scores will be accepted from tests taken no earlier than January 1, 2004. The Midwestern University institutional code for the GRE is 1769. For more information about the GRE, contact Educational Testing Services (ETS) at 1-866-473-4373 or visit www.gre.org;

5. Satisfy the standards set forth by the Admissions Committee (including documentation of academic and professional promise in the prospective student);

6. Complete the OT Program’s interview process. On-campus interviews are by invitation only;

7. Complete a first aid course within three years prior to enrollment;

8. Present evidence of current certification in cardiopulmonary resuscitation (CPR) Level C/Health Care Provider or Basic Life Support of the American Heart Association or the American Red Cross. It is the student’s responsibility to maintain CPR certification at this level while enrolled in the program;

9. Reflect a people/service orientation through community service or extracurricular activities;

10. Reflect proper motivation for and commitment to health care as demonstrated by previous work, volunteer work, or other life experiences;

11. Possess the oral and written communication skills necessary to interact with clients and colleagues;

12. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy;

13. Pass a criminal background check.

Prerequisite Courses

Students must complete these courses with a grade of C or higher:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Anatomy</td>
<td>One course*</td>
</tr>
<tr>
<td>Physiology</td>
<td>One course*</td>
</tr>
<tr>
<td>Statistics</td>
<td>One course</td>
</tr>
<tr>
<td>Human Development</td>
<td>One course</td>
</tr>
<tr>
<td>Abnormal Psychology</td>
<td>One course</td>
</tr>
<tr>
<td>Social and Behavioral Science</td>
<td>One course</td>
</tr>
</tbody>
</table>

*The 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.

Additional courses in the sciences and mathematics are also recommended, including chemistry, physiology, physics, and additional biology courses.

General education electives are also recommended to demonstrate competency in English composition, oral communication, problem-solving behavior, logic, and ethical theories.

INTERNATIONAL STUDENTS: Must complete a minimum of 30 semester hours of coursework in the United States. Of the 30 semester hours, 6 hours must be in non-remedial English composition, and 3 hours in speech/communication. Students must complete these courses with a grade of C or higher.

Application Process

To be considered for admission to the Occupational Therapy program, applicants must submit the following items to the Office of Admissions:

1. A properly completed application. The application, forms, and instructions must be downloaded at www.midwestern.edu; click on the IL Occupational Therapy Program section. For questions about the application or admissions process, you may contact the Office of Admissions at 800-458-6253 or e-mail at admisill@midwestern.edu.

2. A nonrefundable, nonwaivable application fee of $50. Make checks payable to Midwestern University: OT.

3. Two properly signed and sealed letters of recommendation from professionals who know the applicant well. The Office of Admissions will accept letters from prehealth advisors or committees, science professors, and health professionals.

4. Official transcripts from every undergraduate, graduate, or professional school attended. Each transcript MUST be signed and sealed by the registrar of each institution.

5. Standardized test scores (GRE general test scores, required of students with a GPA less than 3.0).

Send all application materials to:
Office of Admissions
Midwestern University
555 31st St.
Downers Grove, IL 60515

Note: Please notify us of any changes to your mailing address and e-mail address.

All requests for withdrawing an application must be done in writing.

GPA Verifications

The Office of Admissions considers grades from all nonremedial, college-level courses completed after high school. All attempts of repeated courses must be used in the calculation of the GPA. No grades of C– or below are accepted for any pre-professional course considered a prerequisite for admission; however, the grades must be used in the GPA calculation. Courses in which “credit” or a grade of “pass” is earned will be counted as fulfilling the prerequisite requirement if the applicant can provide verification that the grade earned was equivalent to a C or
higher. Such courses are not included in the cumulative GPA calculation.

**Interview/Selection Process**

Students selected for an interview will be notified by letter or telephone of available interview dates and invited to schedule an on-campus interview. The applicant must contact the Office of Admissions to schedule an interview date.

During each interview session, the interviewer(s) questions the applicant about his/her academic, personal, and professional aspirations and preparedness for admission to the program, rating the prospective student on a standard evaluation form. These evaluations are then made a part of the applicant’s file, which is then made available to the Occupational Therapy Admissions Committee. The Occupational Therapy Admissions Committee meets approximately one to two weeks after the interviews. The Committee reviews the full application file for each applicant who was interviewed and then formulates and submits its recommendation for action. Each applicant will be notified in writing of the admission action/decision.

**Technical Standards**

A candidate must have abilities and skills in five areas: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. **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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. **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.

III. **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.

IV. **Intelectual, 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.

V. **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of his/her 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.

**Matriculation Process**

The matriculation process begins after an applicant receives notification of his/her acceptance into the Occupational Therapy Program. The student must return both a signed matriculation agreement and deposit to the Office of Admissions. The student must also complete the following:

1. Submit deposit monies by the dates designated in his/her matriculation agreement; the entire deposit is applied toward the student’s first-quarter tuition.

2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the college. If students fail to submit all official final transcripts by the stated deadline, their acceptance or continued enrollment in the college may be jeopardized.

3. Complete a medical file as requested by the Office of Student Services.

4. Submit proof of medical insurance coverage. The student may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of the student’s choice.

5. Submit proof of Illinois residency (this applies only to those students claiming Illinois residency).

6. For non-U.S. citizens/nonpermanent residents only, provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS.

7. Provide documentation that any additional coursework or service requirements stipulated by the admissions committee of the program has been completed.
8. Sign authorization form allowing a criminal background check.
9. Submit additional documents as required by the Office of Admissions.
10. Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
11. Complete physical exam and submit form.
13. Satisfy the Technical Standards for the program.
If the student either fails to satisfy these matriculation requirements or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat in the Program. Any individual accepted for admission to the Occupational Therapy Program who does not comply with stated timelines for submission of all required materials receives no further notification from CHS relative to forfeiture of his/her seat.

Reapplication Process
After receiving either a denial or end-of-cycle letter, a prospective student 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, the prospective student must complete and submit a new application and proceed through each step of the entire application process.

EVALUATION OF STUDENT PERFORMANCE
Students in the Master 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 skills 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 to successfully complete the Fieldwork Level II courses.

GRADUATION REQUIREMENTS
To qualify for graduation, students must:
1. Satisfactorily complete all courses with a minimum cumulative GPA of 2.75 or higher;
2. Satisfactorily complete the required minimum number of credit hours in the curriculum;
3. Receive a favorable recommendation for master’s 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 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.

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 NBCOT. Most states (including Illinois) require status as an occupational therapist registered (OTR) to become a licensed occupational therapist (OTR/L). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. A prior felony conviction may affect a graduate’s ability to sit for the NBCOT Certification Exam or attain state licensure.

CURRICULUM
The professional master’s curriculum is composed of 45 required course credits (quarter hours) for the first calendar year, 61 required course credits for the second calendar year, and 24 required course credits for the third calendar year, for a total of 130 quarter credits. Fieldwork courses are placed in the first, second, and third years of the curriculum and...
include two 1-credit Level I experiences and two 12-credit Level II Fieldwork experiences. Moreover, faculty-guided and supervised learning opportunities in the community are pivotal learning experiences during the second year which reinforce and expand students’ mastery of content and skill performance related to occupational therapy evaluation and intervention.

Students’ proficiency in evaluation and intervention, independent decision-making and critical thinking are emphasized during OT Fieldwork II-A and II-B of the curriculum which occur during the summer and fall quarters of the third professional year (24 required credits). Fieldwork experiences are offered in clinical, community, hospital, school, and other facilities located throughout the continental United States that have a legal agreement with the University.

Curriculum Structure, Course Sequencing and Quarter Hour Credits

**First Professional Year**

<table>
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<tr>
<th>Quarter</th>
<th>Courses</th>
<th>Credits</th>
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</thead>
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<td>Fall</td>
<td>OTHE 0505 Human Conditions I 3.0</td>
<td>3.0</td>
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<tr>
<td></td>
<td>OTHE 0510 OT Foundations 2.0</td>
<td>2.0</td>
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<td></td>
<td>OTHE 0520 Theoretical Constructs I 3.0</td>
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<td>OTHE 0540 OT Analysis I 2.0</td>
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<td>CORE 1399 Health Care Issues 1.0</td>
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<td>Winter</td>
<td>OTHE 0502 Anatomy 4.0</td>
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<td>OTHE 0525 Human Conditions II 3.0</td>
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<td>OTHE 0541 OT Analysis II 2.0</td>
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<td>OTHE 0550 Fieldwork Foundations I 0.5</td>
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<td>OTHE 0660 Occupational Roles and Participation 2.0</td>
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</tr>
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<td></td>
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<tr>
<td>Spring</td>
<td>OTHE 0526 Human Conditions III 3.0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>OTHE 0536 Fieldwork I-A 1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>OTHE 0551 Fieldwork Foundations II 0.5</td>
<td>0.5</td>
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<tr>
<td></td>
<td>OTHE 0581 Kinesiology 3.0</td>
<td>3.0</td>
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<tr>
<td></td>
<td>OTHE 0585 Evaluation and Treatment I: Foundations 5.0</td>
<td>5.0</td>
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<td>OTHE 0629 OT Group Process 2.0</td>
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<td>OTHE 0640 OT Analysis III 2.0</td>
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**Second Professional Year**

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<td>OTHE 0587 Evaluation and Treatment II - Children 5.0</td>
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<td>OTHE 0642 Orthotics II 2.0</td>
<td>2.0</td>
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<tr>
<td></td>
<td>OTHE 0685 Evaluation and Treatment III - Adult 5.0</td>
<td>5.0</td>
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<tr>
<td></td>
<td>OTHE 0690 Advanced Seminar: Upper Extremity 3.0</td>
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<td><strong>Total</strong></td>
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<td>Winter</td>
<td>OTHE 0552 Fieldwork Foundations III 0.5</td>
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<tr>
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<td>OTHE 0589 Evaluation and Treatment IV - Seniors 5.0</td>
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<td>OTHE 0689 Work Rehabilitation &amp; Health Promotion 3.0</td>
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<td>**Total Quarter Credits for Years 1, 2, and 3: 130.0</td>
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**Note:** The Midwestern University College of Health Sciences Occupational Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.

**COURSE DESCRIPTIONS**

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description, it is implied that there is no prerequisite.

**CORE 1399 Health Care Issues**

Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in
collaboration and teamwork. The various roles health care professionals play on a medical team will be introduced to the students using practitioner-patient demonstrations utilizing a surrogate patient. Additional lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA) and the concept of biomedical research.

1 credit

OTHE 0502 Anatomy
This course provides fundamental knowledge of normal human structure and function. The emerging theme will be the interrelationships between structural design and functional capabilities. During this course, basic components including tissues, muscles, nerves, bones and joints will be covered. The musculoskeletal system in particular will be highlighted in both lecture and laboratory formats.

4 credits

OTHE 0505 Human Conditions I
This course is designed to introduce students to issues pertaining to clients with psychiatric disorders, to techniques used in psychiatry to evaluate and diagnose clients, and finally to present an overview of psychiatric conditions within the Diagnostic and Statistical Manual-IV-TR classification system. Implications for occupational therapy practice are introduced.

3 credits

OTHE 0510 OT Foundations
This is an introductory course that focuses on the foundations and scope of occupational therapy practice. The philosophy of the profession, with its emphasis on occupation and adaptation will be presented from both historical and current perspectives. The characteristics of the profession, including service delivery models and settings for occupational therapy practice, role delineations and professional ethics will be included.

2 credits

OTHE 0520 Theoretical Constructs I
This course is the first of a two course series that introduces the philosophical assumptions, theories, models of practice, and frames of reference within occupational therapy practice. Applications to one’s life and previous exposure to occupational therapy will be incorporated.

3 credits

OTHE 0525 Human Conditions II
This course addresses the risk factors, clinical signs and symptoms, pathogenesis, medical tests and treatments, and differential diagnosis of selected diseases/problems most common to the pediatric population. The impact on function is addressed. Prevention of the diseases/problems is emphasized, and current research in etiology and treatment will be discussed.

3 credits

OTHE 0526 Human Conditions III
This course addresses the risk factors, clinical signs and symptoms, pathogenesis, medical tests and treatments, and differential diagnosis of selected diseases/problems most common to the adult population. The impact on function is addressed. Prevention of the diseases/problems is emphasized, and current research in etiology and treatment will be discussed.

3 credits

OTHE 0536 Fieldwork I-A
Fieldwork experience consisting of guided learning experiences in various health care and/or community settings that provides students with direct opportunities to observe and interact with clients engaged in functional living activities that are appropriate for their respective cognitive, psychosocial, and physical stage of development. Observational and documentation skills are emphasized.

1 credit

OTHE 0540 OT Analysis I
This introductory course emphasizes the value and use of purposeful activities in occupational therapy. The development of occupational performance skills in work, self-care, and play/leisure is highlighted. Activity analysis, problem solving and teaching processes are emphasized.

2 credits

OTHE 0541 OT Analysis II
This introductory course emphasizes the recognition, assessment, measurement, and description of normal and abnormal movement in static and dynamic activities. The development of skills necessary to accurately measure and assess joint range of motion and muscle strength is emphasized.

2 credits

OTHE 0550 Fieldwork Foundations I
This course introduces the student to the clinical education program, including its goals and objectives, the types of clinical education experiences provided, and the expectations for student participation. Students will also begin to focus on increasing self-awareness through reflective exercises to foster development of professional behaviors.

0.5 credits
OTHE 0551 Fieldwork Foundations II
This course focuses on the clinical education program, including the types of clinical education experiences recently provided, and the outcomes of student participation. The focus of this course is to facilitate student development of “therapeutic attitude” witnessed during fieldwork, and continue one’s focus on increasing self-awareness through self-reflective and experiential exercises to foster development of professional behaviors.
0.5 credits

OTHE 0552 Fieldwork Foundations III
This course focuses on the clinical education program, including the types of clinical education experiences recently provided, and the outcomes of student participation. The focus of this course is to facilitate student development of “therapeutic attitude” witnessed during fieldwork, and continue one’s focus on increasing self-awareness through self-reflective and experiential exercises to foster development of professional behaviors.
0.5 credits

OTHE 0553 Fieldwork Foundations IV
This course focuses on the clinical education program, including the types of experiences recently provided, and the outcomes of student participation for Fieldwork levels I and II. This course will further develop the student attitudes required for the therapeutic process. Students will also focus on reflective and experiential experiences which foster development of professional behaviors that will impact the clinical experience and their future professional careers.
0.5 credits

OTHE 0581 Kinesiology
Basic biomechanical concepts are addressed in this course and their application to occupational therapy treatment in relation to force analysis and its implications on functional movement and activity. The structure and function of joints, connective tissue and muscle are addressed. Components of normal movement in the trunk and extremities are discussed in relation to static and dynamic movement and activity. The influence of task and pathology on function of the musculoskeletal system is discussed.
3 credits

OTHE 0583 Neuroscience I
This is the first of two courses designed to develop the students’ knowledge base of neuroscience to a level required for clinical practice. Throughout the two courses there will be an intertwining of information about principal structural components, corresponding functions of the nervous system and the impact of neurological dysfunction on human occupation.
3 credits

OTHE 0585 Evaluation and Treatment I: Foundations
This course is an introduction to the occupational therapy process, with learning opportunities designed to develop essential skills required for effective therapeutic intervention. This course emphasizes client-centered approaches to evaluation and intervention with clients throughout the lifespan. Clinical reasoning and critical thinking skill development are emphasized.
5 credits

OTHE 0587 Evaluation and Treatment II: Children
This course emphasizes the application of selected models of practice and strategies for occupational therapy practice with children who have occupational performance dysfunction related to developmental, neuromotor, psychosocial, or medical disabilities. Therapeutic approaches and clinical skills for working with children and families within the home, community, and clinical settings will be emphasized.
5 credits
Prerequisite: OTHE 0585 Evaluation and Treatment I

OTHE 0589 Evaluation and Treatment IV: Seniors
This course emphasizes the application of selected models of practice and strategies for occupational therapy practice with older adults who have occupational performance dysfunction related to cognitive, psychosocial, neuromotor, and medical disabilities. Therapeutic approaches and clinical skills for working with individuals within the home, community, and clinical settings will be emphasized.
5 credits
Prerequisite: OTHE 0585 Evaluation and Treatment I

OTHE 0591 Critical Analysis: Pediatric Practice
The focus of this course is on the application of occupational therapy evaluation and intervention to practice with children in various settings. Problem-based and case-based methodologies are utilized to facilitate students’ ability to generate applications to occupational therapy practice.
2 credits
Prerequisite: OTHE 0587 Evaluation and Treatment II

OTHE 0620 Theoretical Constructs II
This course focuses on the synthesis and evaluation of specific models of practice and frames of reference as related to occupational therapy practice and education. Application to fieldwork and experiential learning opportunities will be highlighted.
3 credits
Prerequisite: OTHE 0520 Theoretical Constructs I

OTHE 0626 Human Conditions IV
This course addresses the risk factors, clinical signs and symptoms, pathogenesis, medical tests and treatments, and
differential diagnosis of selected diseases/problems most common to the elderly population. The impact on function is addressed. Prevention of the diseases/problems is emphasized, and current research in etiology and treatment will be discussed.
3 credits

**OTHE 0628 Research I**
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. The process of choosing an area of research focus, developing appropriate questions, and the beginning of reviewing the literature will be emphasized.
2 credits

**OTHE 0629 OT Group Process**
This course provides students with opportunities to learn basic principles of group process and is presented in a laboratory format. Occupational therapy and group application, conflict resolution, problem solving, working with others, and phases of group development are emphasized.
2 credits

**OTHE 0630 Research II**
Self-directed learning is emphasized in the development of beginning research skills for individual and small group research projects. The development of a research proposal, including the introduction, research questions, research design, and anticipated outcomes will result in a completed project submitted for institutional (IRB) approval.
3 credits
Prerequisite: OTHE 0628 Research I

**OTHE 0631 Research III**
Self-directed learning builds upon work completed in prerequisite courses to carry out research studies that evaluate clinical practice and/or service delivery. Institutional Review Board (IRB) approval initiates the processes of subject recruitment, data collection, and the initial analysis of results.
3 credits
Prerequisite: OTHE 0630 Research II

**OTHE 0632 Critical Analysis: Psychosocial Practice**
This course provides an in-depth analysis of the use of occupational therapy in psychosocial settings. Analysis of current models of practice, philosophical and theoretical frameworks, and occupational therapy practice are critiqued.

3 credits

Analytical thought, clinical reasoning, logic, and critical thinking are emphasized.
2 credits

**OTHE 0633 Research IV**
This is the fourth of four courses in the research course series. Results from the previous coursework are subjected to descriptive or statistical analysis and integrated with current literature in occupational therapy. Projects ultimately relate theory to practice, demonstrate synthesis of advanced knowledge in a practice area, with an outcome of a completed manuscript appropriate for publication in a peer-reviewed journal.
3 credits
Prerequisite: OTHE 0631 Research III

**OTHE 0634 Physical Agents**
This course addresses the theoretical principles and physiological, neurophysiological and electrophysical changes that occur as a result of the application of selected physical modalities. Course content includes information on pain control theories, wound healing principles and the response of tissue to the application of physical modalities. Therapeutic hydrotherapy, thermotherapy, and electrotherapy, when used as an adjunct to, or in preparation for, therapeutic occupation, is highlighted.
4 credits

**OTHE 0635 Fieldwork I-B**
Fieldwork experience consisting of guided learning experiences in various health care and/or community settings that provides students with direct opportunities to observe and interact with clients engaged in functional living activities that are appropriate for their respective cognitive, psychosocial, and physical stage of development. Observational and documentation skills are emphasized.
1 credit

**OTHE 0640 OT Analysis III**
This course emphasizes the use of activities to facilitate independence in functional living including performance in self-care, work, and play/leisure. Selected assessment procedures and therapeutic adaptations are emphasized.
2 credits

**OTHE 0641 Orthotics I**
This course will introduce the fundamental principles involved in the application of basic orthotic devices within the practice of occupational therapy. Emphasis will be placed on anatomical and biomechanical principles as they pertain to orthotic design and utilization, principles of orthotic selection/application and the fabrication process of three basic orthoses.
2 credits
OTHE 0642 Orthotics II
This course emphasizes the design and fabrication of complex orthotic devices and adaptive equipment to enhance an individual’s ability to perform work, self-care, and play/leisure activities. The refinement of psychomotor and reasoning skills are highlighted.
2 credits
Prerequisite: OTHE 0641 Orthotics I

OTHE 0660 Occupational Roles and Participation
This course provides students with an in-depth inquiry into the essential principle of the profession – occupation – and the ways in which everyday occupation provides meaning, continuity, and perspective to our lives. Occupational engagement, experience, and performance will be addressed, and ways in which occupation contributes to well-being and participation in daily life will be highlighted.
2 credits

OTHE 0678 Administration and Leadership
Basic management skills are emphasized, including strategic planning, business plans, legal issues, fiscal management, reimbursement, organization, personnel management, and grant writing. These applications will provide the tools for the development of occupational therapy service delivery.
3 credits

OTHE 0679 Neuroscience II
This course is designed to develop the students’ knowledge base of neuroscience to a level required for clinical practice. It provides opportunities to apply neuroscience principles to the evaluation and treatment of occupational performance. Throughout the two neuroscience courses there is an intertwining of information about principal structural components, corresponding functions of the nervous system and the impact of neurological dysfunction upon human occupation.
3 credits
Prerequisite: OTHE 0583 Neuroscience I

OTHE 0685 Evaluation and Treatment III: Adult
This course emphasizes the application of selected models of practice and strategies for occupational therapy practice with adults who have occupational performance dysfunction related to cognitive, perceptual, psychosocial, and neuromotor disabilities. Therapeutic approaches and clinical skills for working with individuals within the home, community, and clinical settings will be emphasized.
5 credits
Prerequisite: OTHE 0585 Evaluation and Treatment I

OTHE 0687 Advanced Seminar: Adult
The focus of this course is on the application of occupational therapy evaluation and intervention to practice with adults in various settings. Problem-based and case-based methodologies are utilized to facilitate students’ ability to generate advanced applications to occupational therapy practice.
3 credits
Prerequisite: OTHE 0685 Evaluation and Treatment III

OTHE 0689 Work Rehabilitation and Health Promotion
This course focuses on the application of occupational therapy evaluation and treatment approaches to work rehabilitation. The application of ergonomic principles and functional capacity evaluations to varied work settings is emphasized. Health promotion and prevention throughout the lifespan are also highlighted.
3 credits

OTHE 0690 Advanced Seminar: Upper Extremity
This course will focus on advanced evaluation and intervention strategies for the remediation of physical limitations that are primarily musculoskeletal in nature. Emphasis will be placed on impairments of the upper extremity and their effect on functional performance.
3 credits

OTHE 0694 Program Development
Using skills from the previous administration course, students work in small groups to develop a realistic model for occupational therapy service provision in an agency or institution not currently accessing such services. Emerging and non-traditional areas of practice are highlighted for the student groups’ end product: the development of a program model for occupational therapy services.
3 credits
Prerequisite: OTHE 0678 Administration and Leadership

OTHE 0795 Fieldwork II-A
Three months of supervised field experience with clients and/or client groups who exhibit a variety of medical conditions, which include physical and/or psychosocial disabilities. This internship emphasizes the development of disciplined, higher-level critical thinking skills necessary to plan and provide high-quality client care. Students are supervised by registered occupational therapists with a minimum of one year of experience.
12 credits

OTHE 0796 Fieldwork II-B
Three months of supervised field experience with clients and/or client groups who exhibit a variety of medical conditions, which include physical and/or psychosocial
disabilities. This internship emphasizes the development of disciplined, higher-level critical thinking skills necessary to plan and provide high-quality client care. Students are supervised by registered occupational therapists with a minimum of one year of experience.

12 credits

**FACULTY**

**Kimberly A. Bryze, PhD, OTR/L**  
University of Illinois at Chicago  
College of Education  
Program Director and Associate Professor

**Allyson L. Chrystal, MOT, OTR/L**  
Midwestern University  
College of Health Sciences  
Instructor

**Susanne A. Higgins, OTR/L, CHT**  
University of Illinois at Chicago  
College of Applied Health Sciences  
Instructor

**Lisa J. Knecht-Sabres, MS, OTR/L**  
University of Illinois at Chicago  
College of Applied Health Sciences  
Assistant Professor

**Thomas E. Laster, MS, OTR/L**  
Indiana University  
College of Arts and Sciences  
Associate Professor

**Dana M. Lingle, OTR/L, CHT**  
Eastern Michigan University  
College of Health Sciences  
Assistant Professor

**Emily Simpson, MS, OTR/L**  
University of Illinois at Chicago  
College of Applied Health Sciences  
Assistant Professor

**LaVonne St. Amand, MPH, OTR**  
University of Hawaii  
College of Public Administration  
Assistant Professor
MISSION
The mission of the Master of Biomedical Sciences (M.B.S.) program is to prepare students with a broad understanding in the biomedical sciences and significant experience in laboratory research. This training will augment their credentials and education and give the graduate greater career options in further postgraduate education, biotechnology and pharmaceutical industry, biological laboratory research, and governmental regulatory agencies.

DEGREE DESCRIPTION
The Master of Biomedical Sciences Program is a full-time, graduate level program that provides the student with a broad background in the biomedical sciences, laboratory experiences, and research skills. Successful completion of the program leads to a Master of Science in Biomedical Sciences degree. The curriculum is designed to prepare and graduate students who have extensive knowledge, 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. In addition, the curriculum will make the successful student a competitive candidate for admission to postbaccalaureate professional schools offering degrees in the health sciences.

The 72 quarter-hour curriculum is usually completed in 21 months. Students who need more than 21 months to complete the program will be required to enroll in a thesis continuation course. The student will be charged a fee for thesis continuation, which increases in the winter quarter of year 3. Students must complete the program within four years of matriculation, excepting approved leaves of absence. All students are required to complete a research project approved by the student’s thesis committee. The required curriculum includes six basic science courses, but allows the student to choose areas of emphasis, such as physiology, pharmacology, microbiology and immunology, or biochemistry. 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 Methods, Principles of Statistics, Medical Writing, Advanced Topics, Seminars in Biomedical Sciences, Fundamentals of Research, Ethics of Research and Experimentation, Research Literature Review and Thesis Proposal, Laboratory Research, and Thesis. A series of electives and independent studies 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.

The Master of Biomedical Sciences Program will also benefit students who wish to improve their credentials for application to medical school or other health professions programs. The Master of Biomedical Sciences Program allows students to demonstrate their ability to perform at a graduate level, improve their GPA, better prepare for the MCAT examination and take courses that broaden their undergraduate coursework.

It is recommended that the basic science courses be taken at the College of Health Sciences. However, a student may take courses at the Chicago College of Osteopathic Medicine with permission of the Program Director and course director.

ADMISSIONS
Requirements
To be considered for admission to the Master of Biomedical Sciences Program, the applicant must:
1. Possess a bachelor’s degree or higher from a regionally accredited college or university.
2. Possess a minimum cumulative GPA of 2.75 on a 4.0 scale from an undergraduate or higher degree program.
3. Submit Graduate Record Examination general test (GRE) scores which should less than five years old. The GRE institutional code for Midwestern University - Contact Educational Testing Services (ETS) at 866/473-4373, or visit www.ets.org.

OR Submit MCAT (Medical College Admission Test) scores less than five years old. Contact the MCAT Program Office at 202/828-0690 or visit their Web site at www.aamc.org/students/mcat.

OR Submit DAT (Dental Admission Test) scores which are less than five years old. Contact the American Dental
Association (ADA) at 312/440-2500 or Web site at www.ada.org.
OR
Submit PCAT (Pharmacy College Admissions Test) scores which are less than 5 years old. Contact Harcourt Assessment, Inc. (also known as Pearson) at 800/622-3231 or visit their website at www.pcatweb.info.
4. Pass a criminal background check.
5. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.

NOTE: INTERNATIONAL STUDENTS must complete a minimum of 30 semester hours of coursework with a grade of “C” or above in the United States. Of the 30 semester hours, 6 hours must be in nonremedial English composition and 3 hours in speech/communication.

Application Process
To be considered for admission into the Master of Biomedical Sciences Program, the applicant must submit the following items to the Office of Admissions:
1. A properly completed application. The application, forms and instructions must be downloaded at www.midwestern.edu; click on the IL Biomedical Sciences Program section. For questions about the application or the admissions process, you may contact the Office of Admissions at 800/458-6253 or e-mail at admisssil@midwestern.edu;
2. A nonrefundable, nonwaivable application fee of $50;
3. Two letters of recommendation; and
4. Official transcripts from each college or university attended.
5. Standardized test scores that are less than five years old for GRE or MCAT or DAT or PCAT

Send all application materials to:
Office of Admissions
Midwestern University
555 31st Street
Downers Grove, IL 60515

Please Note: Please notify us of any changes to your mailing address and e-mail address.

All requests for withdrawing an application must be done in writing.

Selection Process
The Master of Biomedical Sciences Program currently uses a rolling admissions process. Completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. Students matriculate into the full-time program starting in the Fall Quarter. Admission is considered on a competitive basis for prospective students who hold a bachelor’s level or higher degree from a regionally accredited program. Multiple criteria are used to select the most qualified candidates from an applicant pool that exceeds the number of seats available. Applications received are reviewed by the Office of Admissions for completeness and referred to the Director of the Biomedical Sciences Program. Final acceptance into the Master of Biomedical Sciences Program is determined by the Biomedical Sciences Program Admissions Committee with the approval of the Director of the Program and the Dean of the College of Health Sciences. Decisions on acceptance are made until the maximum enrollment for each program is reached. Candidates are encouraged to submit a completed application early in the admission cycle to maximize competitiveness.

Technical Standards
A candidate must have abilities and skills in five areas: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. 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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. 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.

III. 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.

IV. 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.

V. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her 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.
Matriculation Process
The matriculation process begins after an applicant receives notification of his/her acceptance into the Biomedical Sciences Program of the College. The student must submit both a signed matriculation agreement and deposit to the Office of Admissions. The student must also complete the following:

- Submit deposit monies by the date designated in his/her matriculation documents—the entire deposit is applied toward the student’s first-quarter tuition.
- Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the College. If students fail to submit all official final transcripts by the stated deadline, their acceptance or continued enrollment in the college may be jeopardized. Complete a medical file as requested by the Office of Student Services.
- Submit proof of medical insurance coverage. The student may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of the student’s choice.
- INTERNATIONAL STUDENTS: Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS (for F-1 visa students only).
- Provide documentation that any additional coursework or service requirements stipulated by the Biomedical Sciences Program Admissions Committee has been completed.
- Submit additional documents as required by the Office of Admissions.
- Sign authorization form allowing for a criminal background check.
- Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
- Complete physical exam and submit form.
- Sign Credit Policy Statement

If the student either fails to satisfy these matriculation requirements or omits/falsifies information required on official admissions documents, the student automatically forfeits his/her seat in the program. Any individual accepted for admission to the Biomedical Sciences Program of the College of Health Sciences who does not comply with stated timelines for submission of all required materials receives no further notification from CHS relative to forfeiture of his/her seat.

Dual Degree Options for Physician Assistant, Occupational Therapy, Physical Therapy, Pharmacy, and Osteopathic Medicine Students
The Biomedical Sciences Program offers an educational opportunity to current and incoming physician assistant (PA), occupational therapy (OT), physical therapy (PT), pharmacy, and osteopathic medical (D.O.) students. Students accepted into these programs may apply to the Biomedical Sciences Program as dual-degree candidates. The following policies apply:

1. The applicant must apply and be accepted into the clinical program and Biomedical Sciences Program separately. Only applicants meeting minimum entrance requirements for both degree programs will be given an option for the dual-degree program.
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 duration of time 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. The Biomedical Sciences Program degree must be completed within a total of 5 years from initial matriculation.
4. The student must maintain the minimum cumulative GPA requirements of each program. Failure to maintain the minimum cumulative GPA in either program will result in the student being given an academic warning or placed on academic probation. This may result in deceleration or temporary suspension from the secondary degree program.
5. The number of credits required for completion of the Biomedical Sciences Program is seventy-two quarter hours. Some courses from the student’s clinical degree program may be deemed suitable for credit in the Biomedical Sciences Program degree program. If approved, these courses may be substituted for elective 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 Science program on a per credit basis. Dual degree students shall receive a 30% discount on the usual Master of Biomedical Science program per credit hour charge for the full duration of their Master of Biomedical Science degree program. Master of Biomedical Science program tuition is payable quarterly and determined by the number of credits for which the student is registered.
Transfer Credit
A student may request that previous graduate coursework taken at another accredited university be transferred to this degree program. However, no more than 14 credit hours can be accepted as transfer credit. Policies for course transfer can be found in the Midwestern University College of Health Sciences Catalog section entitled Advanced Placement Exemption From Coursework.

Graduation Requirements
To qualify for graduation with a master’s degree from the Biomedical Sciences Program, students must:
• Follow an approved course of study acceptable to the student’s thesis committee, and complete a master’s thesis project;
• Satisfactorily complete the required number of quarter hour credit master’s level courses with a 2.75 or higher cumulative grade point average;
• Pass all required courses;
• Receive a favorable recommendation from the Biomedical Sciences Program Student Academic Review Committee and the College of Health Sciences Student Promotion and Graduation Committee;
• Be recommended for conferment of the master’s degree by the University Faculty Senate;
• Settle all financial accounts with the University; and
• Complete all graduation clearance requirements as instructed by the Office of the Registrar.

Curriculum

Required Courses: Basic Science
Students must complete any three of the following course combinations:
- BIOC 0351 & BIOC 0352
- MICR 0476 & MICR 0482
- PHAR 0461, 0462, and 0463
- PHYS 0460 & PHYS 0470

Sample Curriculum:

<table>
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<tr>
<th>Quarter</th>
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<th>Course Title</th>
<th>Credit Hours</th>
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<td>BIOC 0351</td>
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Required Courses: Research and Thesis
- BISC 0503 Research Literature Review and Thesis Proposal
- BISC 0553 Seminar in the Biomedical Sciences
- BISC 0554 Seminar in the Biomedical Sciences
- BISC 0635 Advanced Topics
- BISC 0512 Fundamentals of Research
- BISC 0520 Ethics of Research and Experimentation
- BISC 0660 Laboratory Research for Thesis
- BISC 0680 Thesis
- BISC 0601 Research Design and Methodology
- BISC 0602 Principles of Biostatistics
- BISC 0603 Medical Writing

Elective Options
- ANAT 0450 Human Anatomy I/Embryology
- ANAT 0465 Human Neuroscience
- BIOC 0452 Clinical Biochemistry and Nutrition
- BIOC 0645 Principles and Practices of Enteral and Total Parenteral Nutrition
- BIOC 0647 Nutrition in Preventive Medicine
- MICR 0604 Agents of Biological and Chemical Warfare and Terrorism
- PHAR 0400 Molecular Endocrinology & Human Disease
- PHAR 0534 Pharmacologic Aspects of Drug Abuse
- PHAR 0417 Cardiovascular Pharmacology
- PHAR 0415 Medical Spanish
- PHYS 0637 Exercise Physiology
- PHYS 1654 Obesity: Epidemiology Clinical Assessment Related Medical Conditions and Treatment
- PPRA 0515 Introduction to Teaching and Learning Issues
- PPRA 0518 Landmark Trials in Primary Care
- PPRA 0520 Advanced Cardiology Topics
- PPRA 0531 End of Life Care
- PPRA 0533 Introduction to American Sign Language for Health Professionals
- PSCI 0557 Alternative Therapies and Natural Products
- PSCI 0567 Current Topics in Medicinal Chemistry
- PSCI 0568 Biotechnology
- PSCI 0665 Vitamins, Minerals and Nutritional Support
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**Course Descriptions**

Prerequisites are listed for those courses with such requirements. When no prerequisite is listed in a course description, it is implied that there is no prerequisite.

**BIOC 0351 Biochemistry I**

This course combines lectures and small group discussions of clinical case studies in workshops. Lectures address structure-function relationships in major biomolecules, human metabolism and cell biology. Workshops feature clinical case studies to illustrate principles of clinical biochemistry and application to the practice of pharmacy. Workshop topics may include anemias, cytochrome p450 enzymes, dangers of dietary supplements, diabetes mellitus, drug biomembrane transport, environmental toxins and hemostasis disorders.

3.5 credits

**BIOC 0352 Biochemistry II**

This course combines lectures and small group discussions of clinical case studies in workshops. Lectures address principles of human gene expression, chromosomal abnormalities, pharmacogenomics, multifactorial inheritance, and nutrition. Workshops feature clinical case studies to illustrate principles of clinical biochemistry and application to the principles of biochemistry and to the practice of pharmacy.

4.5 credits

Prerequisite: BIOC 0351 Biochemistry I

**BISC 0503 Research Literature Review and 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.

3 credits
**BISC 0512 Fundamentals of Research**  
This course introduces the topics of Responsible Conduct of Research and the Good Laboratory Practice (GLP) requirements and regulations of the FDA and EPA. Students also receive training in issues related to research on human subjects and animals, radiation safety, and biosafety.  
2 credits

**BISC 0520 Ethics of Research and Experimentation**  
This class is intended to give students a broad overview of research ethics and regulation, especially as it relates to human research. Students develop an understanding of the moral basis of research ethics including scientific integrity, research with human subjects, informed consent, vulnerable populations, privacy and confidentiality of records, conflicts of interest, and research on animals.  
2 credits

**BISC 0553 and 0554 Seminar in the Biomedical Sciences**  
This course is designed to expose the Master of Biomedical Sciences 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.  
BISC 0553, 1 credit  
BISC 0554, 1 credit

**BISC 0601 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. This is the foundational course for the Master’s Project.  
3 credits

**BISC 0602 Principles of Biostatistics**  
This course covers elementary statistical techniques, introduction to probability, measurement theory, correlation and regression analysis, sampling, significance tests, and statistical inference.  
3 credits

**BISC 0603 Medical Writing**  
This course is one of the basic courses required for students in the master’s degree programs at Midwestern University. It provides students with the necessary skills to express themselves in writing at a level necessary for communication in medical fields. Students obtain essential tools for writing research review papers, proposals, letters to the editor, and other scholarly communications. The course also provides students with information about investigational review boards, and how to prepare project timelines, publish articles, and prepare poster presentations.  
3 credits

**BISC 0635 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. This course is repeatable.  
3 credits

**BISC 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 in 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. This course is repeatable.  
3 credits  
Prerequisite: BISC 0512 Fundamentals of Research

**BISC 0680 Thesis**  
The research project culminates with the analysis of experimental data, development of appropriate conclusions based on the information gathered, and writing the research findings in publication format. The student will also make a public presentation of his/her work to the Midwestern University community. The Thesis Committee approves the proposal, oversees the research project, and approves the final research thesis.  
4 credits

**BISC 0690, 0691 and 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. Students take BISC 0690, 0691 and 0692 in the summer, fall and winter quarters of year 3, respectively. A fee is assessed with enrollment in these courses.  
0 credits per quarter

**CORE 1399 Health Care Issues**  
Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The various roles health care professionals play on a medical team will be introduced to the students using practitioner-patient demonstrations
utilizing a surrogate patient. Additional lectures will introduce students to the health insurance Portability and Accountability Act (HIPAA), and the concept of biomedical research.

1 credit

**MICR 0476 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.

2 credits
Prerequisite: BIOC 0351 Biochemistry I

**MICR 0482 Infectious Diseases**
This didactic course covers infectious diseases, their etiologic agents, differential diagnoses and disease management. Through the use of patient cases, diagnostic algorithms and integrative self-studies, students learn problem-solving skills. The course includes hands-on experiential laboratory sessions and laboratory-based patient cases which augments didactic material and provides insight into clinical microbiological laboratory procedures and evidence-based approach to diagnoses in the infectious diseases context.

4 credits

**PHAR 0461, 0462, and 0463 Pharmacology I, II, and III**
Pharmacology studies the properties and effects of drugs and, in a more general sense, the interactions between chemical compounds and living systems. This series includes the general principles of pharmacology; the dynamics of absorption, distribution, metabolism, and elimination of drugs; drug testing in humans; and the role of official regulatory agencies. The student studies drugs affecting the autonomic nervous system; drugs acting on the central nervous system; cardiovascular drugs; chemotherapy of microbial, parasitic, and neoplastic diseases; drugs acting on blood and blood-forming organs; and hormones and hormone antagonists. Topics such as principles of toxicology, vitamins, gastric antacids, digestants, laxatives, antihistamines, antiserotonin agents, and drugs causing birth defects are included.

PHAR 0461, 4 credits
PHAR 0462, 4 credits
PHAR 0463, 2 credits

**PHYS 0460/0470 Human Physiology I, 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 properties of excitable cells and the functions of the neuromuscular, cardiovascular, pulmonary, renal, digestive, endocrine and reproductive systems.

3.5 credits per quarter

**ELECTIVE COURSES**

**ANAT 0450 Human Anatomy/Embryology with Gross Anatomy Lab**
This course presents lectures and laboratory (human cadaver prosection, microscopy) sessions emphasizing the embryologic development of the human body, the relationship between body structure and function, and the use of gross human anatomy in physical diagnosis.

7 credits (including laboratory sessions)

**ANAT 0465 Human Neurosciences**
This is an integrated, interdisciplinary course in which students learn to identify and describe the principal structural components and corresponding functions of the nervous system, and correlate underlying lesions involving these structures with neurologic deficits and dysfunctions. Emphasis is given to understanding various aspects of the human neurosciences, such as the anatomy and physiology of pain (its origin, interpretation, and management), basic neurologic tests, and differentiating commonly occurring disease states likely to be encountered in professional practice.

3 credits
Prerequisites: ANAT 0450 Human Anatomy; PHYS 0460 Human Physiology I

**BIOC 0452 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.

3 credits

**BIOC 0645 Principles and Practices of Enteral and Total Parenteral Nutrition**
This course surveys the biochemical, metabolic, and nutritional sciences underlying the provision of nutritional support, and provides a basic introduction to the clinical practices involved in its implementation. During the course students apply information provided in lectures to the provision of nutrition support in selected clinical case studies.

1 credit
Prerequisite: BIOC 0351 Biochemistry I; BIOC 0352 Biochemistry II
BIOC 0647 Nutrition in Preventative Medicine
This module presents the student with current concepts relating diet to the incidence, etiology, pathogenesis, and prevention of three chronic diseases (cardiovascular disease, cancer, and osteoporosis).
1 credit
Prerequisite: BIOC 0351 Biochemistry I; BIOC 0352 Biochemistry II

MICR 0604 Agents of Biological and Chemical Warfare and Terrorism
The course is 20 hours of didactic lecture, but Web-based and video presentation is also used. Discussion sessions highlight the potential use of biological and chemical agents as agents of terrorism, when to suspect their use, signs and symptoms of each agent, the standard medical response to biological and chemical terrorism, and the factors involved in planning for and protecting against a biological and chemical weapons attack. In addition, historical and hypothetical case scenarios are also be presented.
2 credits
Prerequisite: MICR 0482 Infectious Diseases

PHAR 0400 Molecular Endocrinology and Human Disease
This course examines how molecular defects in hormones, hormone receptors and intracellular signaling cascades result in the clinical manifestation of endocrine-based diseases.
1 credit

PHAR 0415 Medical Spanish
The elective provides medical, pharmacy, physician assistant and biomedical sciences students with the Spanish vocabulary necessary to understand and converse in the fields of medicine and health care. The course has been designed to enhance communicating with the Latino patient as well as understanding cultural attitudes, which may impact medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations. Critical learning skills that students are encouraged to develop are cooperative learning and effective group dynamics.
2 credits
Prerequisite: Two years of high school or college Spanish

PHAR 0417 Cardiovascular Pharmacology
Cardiovascular (CV) disease is a national health problem of major consequence. Its treatment is one of the principal problems facing modern medicine. This elective is designed to familiarize the student with the most significant of all CV diseases, i.e., atherosclerosis; and potential antiatherosclerotic effectiveness and mechanisms of various CV drugs and non-drug forms of therapy. This course is offered with Pass/Fail grading only.
2 credits

PHAR 0534 Pharmacologic Aspects of Drug Abuse
This elective is designed to provide the student with an in-depth understanding of the pharmacokinetics and pharmacodynamics of the common drugs of abuse, including alcohol, cocaine, stimulants, hallucinogens, and opioids. Current theories regarding the physiologic basis of drug-seeking behavior and the development of drug dependence are presented. In addition, various social, legal, and ethical aspects of the drug abuse problem are considered.
2 credits

PHYS 0637 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.
3 credits
Prerequisite: PHYS 0470 Human Physiology II

PHYS 1654 Obesity: Epidemiology, Clinical Assessment, Related Medical Conditions and Treatment
This elective introduces students to the medical consequences of obesity. The motivation for this course is the high probability that most health professionals will have to consider the impact of obesity on the patient’s medical status. Students will be introduced to the epidemiology of obesity, measurement of body composition, physiological conditions. The psychosocial aspects of obesity, as well as the dietary, pharmacological, and surgical approaches used to treat obesity will be discussed.
2 credits

PPRA 0515 Introduction to Teaching and Learning Issues
Throughout their careers pharmacists are called upon to teach. Many pharmacists present continuing education talks, precept pharmacy students, and present community service seminars. To be effective at these tasks, it is essential for the pharmacist to have a good understanding of learning theory and basic tools for teaching. This course is designed to introduce students to learning theory and basic tools for teaching. Students learn through practice. As new concepts are introduced, students will apply them in either homework assignments or in-class presentations.
1 credit
Prerequisite: Instructor approval

PPRA 0518 Landmark Trials in Primary Care
This elective course focuses on reviewing the clinical trial data that support therapeutic recommendations in primary care. The course critically evaluates landmark clinical trials,
identifying rationale and/or inconsistencies with trial data and current therapeutic guidelines. The focus is on applying clinical trial data to patient cases to support therapeutic recommendations. Therapeutic topics include diabetes, stroke, hypertension, and heart failure.
2 credits
Prerequisite: Instructor approval

**PPRA 0520 Advanced Cardiology Topics**
This course provides pharmacy students an opportunity to learn about selective cardiovascular diagnoses and therapy, and cardiovascular diagnostic procedures. Lectures focus on the role of pharmacological agents in diagnostic and invasive cardiology procedures from basic concepts to a patient’s bedside. Active learning strategies are employed.
2 credits
Prerequisite: Instructor approval

**PPRA 0531 End-of-Life Care**
This course covers end-of-life care from four different perspectives: managing the system, managing the patient, managing the caregiver, and managing attitudes and feelings. Pharmacotherapeutic aspects of death and dying are presented. The course is delivered via lecture and interactive discussion.
2 credits
Prerequisite: Instructor approval

**PPRA 0533 Introduction to American Sign Language for Health Professionals**
Students develop syntactic knowledge of American Sign Language and learn basic vocabulary and conversation skills that are frequently used by health care professionals. Students will also develop expressive and receptive finger spelling through class activities. Vital aspects of deaf culture are also discussed. This course is open to any pharmacy student.
1 credit
Prerequisite: Instructor approval

**PSCI 0557 Alternative Therapies and Natural Products**
Alternative therapies are being used by a growing percentage of the population and are becoming more visible to mainstream medical practice. Health care professionals should develop the knowledge and skills necessary to aid the patient in making rational decisions about the use of alternative therapies. This elective focuses on the utility of drugs from natural sources in today’s practice environment and surveys the products of animals, plants, microbes, and biotechnology that will impact pharmacy tomorrow.
3 credits

**PSCI 0567 Current Topics in Medicinal Chemistry**
This course provides an overview of several areas of current interest in the field of medicinal chemistry. Also presented in-depth will be certain specialized topics that received limited coverage in the required medicinal chemistry courses.
1 credit
Prerequisite: PS-III standing or instructor approval

**PSCI 0568 Biotechnology**
This course will provide an introduction to types of biotech products, from recombinant DNA and antisense technology to monoclonal antibodies. Background information related to production, storage, and handling will be discussed as they relate to analytical techniques, patient education and counseling, and therapeutic use. Other related topics include gene therapy, stem cell research, cloning, biopharming, pharmacogenomics, and the Human Genome Project.
2 credits
Prerequisite: PS-II standing or instructor approval

**PSCI 0665 Vitamins, Minerals, and Nutritional Support**
This module provides an overview of the mechanisms of action and therapeutic uses of fat- and water-soluble vitamins, antioxidants, macro- and micro-minerals, and a variety of enteral nutritional support supplements. Topics may include the use of anti-oxidants, multivitamin choices, potential vitamin and mineral toxicity and drug interactions, investigation of a variety of infant and adult nutritional support/supplements, as well as nutritional support for patients with selected diseases. The mechanism-based approach used in this module will allow the practicing pharmacist to more easily identify, organize, and recommend various therapeutic agents for a wide variety of patients.
2 credits

**FACULTY**

**Michael J. Fay, Ph.D.**
University of Mississippi
School of Pharmacy
Program Director and Associate Professor
COLLEGE OF HEALTH SCIENCES

CLINICAL PSYCHOLOGY PROGRAM

MISSION
The Doctor of Psychology (Psy.D.) in the Clinical Psychology Program is designed to educate and train students in the general practice of clinical psychology. The program integrates theory, research, professional practice, and training to provide an excellent education for a variety of careers in psychology and related behavioral sciences. The program prepares clinicians who can work with a diverse population of persons who are in need of psychological services.

ACCREDITATION
Midwestern University is accredited by The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools (HLC/NCA), 30 North LaSalle St., Suite 2400, Chicago, IL 60602; 800/621-7440. Since MWU’s Clinical Psychology Program is relatively new, it is not yet accredited by the American Psychological Association (APA). The Program has applied for accreditation and an APA accreditation site visit was completed in the spring of 2007. Accreditation information can be obtained from the Office of Program Consultation and Accreditation, American Psychological Association, 750 First Street NE; Washington, DC 20002-4242. Phone: 202-336-5979; TDD/TTY: 202-336-6123. Web Site: http://www.apa.org/ed/accreditation/status.html

DEGREE DESCRIPTION
The Doctor of Psychology in Clinical Psychology Program follows the practitioner-scholar model of preparation that was accepted by the American Psychological Association at the Vail Conference. 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 in the clinical practice of psychology and the ability to utilize the knowledge in specific clinical situations. This program has the philosophy of educating and training individuals to enter careers emphasizing the delivery of direct psychological services and consultation. Relevant theory, research, and field experiences are integrated toward the development of competent and ethical practitioners who are respectful of individual and cultural differences in the provision of psychological services.

Students are only admitted into the Psy.D. Program. There is no separate master degree program. Students in the Psy.D. program may elect to earn a master degree while pursuing the doctoral degree.

Program Objectives
The Doctor of Psychology in Clinical 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. has become the degree of choice for persons interested in becoming a high-level practitioner when pursuing a career in clinical psychology. The curriculum for the program does not follow any one theoretical perspective; rather, the emphasis is upon the development of the essential diagnostic, therapeutic, and consultative skills for the practice of clinical psychology.

The program of study follows the objectives of the training models endorsed by the American Psychological Association (APA) and the National Council of Schools and Programs of Professional Psychology (NCSPP). Students are educated and trained in the core areas related to the current body of knowledge on the biological aspects of behavior, cognitive and affective aspects of behavior, social aspects of behavior, history and systems of psychology, psychological measurement, research methodology, techniques of data analysis, individual differences, human development, dysfunctional behavior and psychopathology, professional standards and ethics, theories and methods of assessment and diagnosis, effective interventions, consultation, supervision, efficacy of interventions, and issues of cultural and individual diversity. The curriculum also has a strong emphasis on the uses of pharmacotherapies for mental disorders. The program centers on the development of appropriate attitudes, knowledge, and skills reflected in the training competencies of relationship, assessment, intervention, research/evaluation, consultation/education, management/supervision, diversity, and professionalism.
Practicum training is completed at numerous hospitals, agencies, and organizations throughout the Chicago metropolitan area. Midwestern University has an extensive network of training sites established for a variety of health care professions including medicine, psychiatry, physician assistant studies, physical therapy, occupational therapy, and pharmacy. Alumni of Midwestern University’s various programs are practicing as clinicians, educators, supervisors, and administrators at many facilities throughout the State of Illinois.

Program Requirements
The Psy.D. Program is designed to be completed in four to five years. Full-time students will complete three years comprised of coursework, clerkship, diagnostic practicum and therapy practicum. This is followed by a one-year full-time internship and the satisfactory completion of a clinical dissertation. A fifth year of study may be required for students opting for additional advanced practicum experiences prior to internship. Some evening classes or a weekend course may be scheduled.

Satisfactory Progress
Once students have matriculated, they must be in continuous enrollment in the program until graduation. Credit hours can be earned during any academic quarter: fall, winter, spring, or summer. Student progress in the Psy.D. Program is evaluated at the conclusion of each quarter. In addition to competency checkpoints throughout the program related to training competency areas, the Clinical Psychology Program’s Student Academic Review Committee conducts the evaluation of student progress at the conclusion of each quarter. Students must demonstrate satisfactory achievement levels in all of the program’s education and training competency areas throughout their time in the program. Students are provided written and oral feedback about their progress.

Master of Arts in Clinical Psychology Degree
Currently students are only admitted into the Psy.D. Program. There is no separate master degree program. The doctoral students may elect to earn a M.A. degree while pursuing the Psy.D. degree after successful defense of a clinical master thesis that follows successful completion of the first two years of coursework, clerkship, and practicum experiences. Students must also register for Psy 681 Master’s Thesis with the Program Director’s permission.

The awarding of the M.A. degree is done to provide an additional credential certifying the work completed by students who are pursuing the Psy.D. degree. This additional credential may enhance the value of the students to many employers and assist in the competitive process of securing an internship.

Clerkship
The Psy.D. Program offers a number of supervised clinical training experiences beginning in the first year of study. Under supervision of program faculty, students work at off campus sites in a variety of clinical roles appropriate for their level of training. Students can elect clerkship experiences from a variety of opportunities. Final approval for participation in a particular clerkship rests with the Program Director in consultation with the Director of Training, the supervising faculty members, and the Student Academic Review Committee.

Clinical Practicum
All students must successfully complete practicum experiences in the second and third year of study. Students enter practicum training if they are making satisfactory progress in the program and receive approval of the Director of Training. Practicum is a field experience at off-campus clinical training sites that can span either the academic or calendar year. 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 complete a minimum of six quarters of practicum. Students work approximately 16 to 20 hours per week in a clinical setting. The practicum experiences in psychodiagnostics and psychotherapy total a minimum of approximately 1,000 hours. Typically, the student completes a diagnostic practicum in the second year of study and a therapy practicum in the third year. Practicum placements may require work in the summer months, over holiday periods, and during breaks in the academic calendar. Additional advanced practicum training may be appropriate in preparation for the internship. The Director of Training assists students in the application process for practicum placement to facilitate an appropriate match between training site characteristics and student interests.

Qualifying Examination
The purpose of the Qualifying Examination is to permit students to demonstrate the capacity 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 successful completion of the Qualifying Examination signals the official acceptance of the matriculated student as a doctoral candidate. The examination is evaluated on a pass/fail basis and is scheduled after the first two years of study. The Qualifying Examination must be completed at the time it is scheduled and at the location specified. There are no exceptions allowed.

Internship
The predoctoral internship is a 2,000-hour requirement at an approved clinical training site over a 12-month or 24-month period. The internship is designed to provide intensive
advanced clinical training that builds upon the coursework and practicum experiences. The internship is a critical component of the Psy.D. Program and cannot be waived. After successfully completing the Qualifying Examination and attaining doctoral candidacy, a student can apply for an internship. Student applying for an internship enter a national match process. Students must satisfactorily complete all required coursework, clerkship, and practicum experiences before beginning the internship. The internship may or may not be a paid position.

Clinical Dissertation
The successful completion of a clinical dissertation is required for graduation. This is intended as a scholarly work that permits the student an opportunity to enhance their knowledge about a particular clinical area. A committee of faculty members will assist with this process. The clinical dissertation typically is completed within nine to 12 months. Students are required to develop and present a proposal for their project that must be approved by a Clinical Dissertation Committee before the clinical dissertation is implemented. The student then completes any data collection and analysis required for the project and completes a written document detailing the clinical dissertation. Each student must present an oral defense of the clinical dissertation upon its completion. Following a successful defense, the student must provide the program with copies of the clinical dissertation that are suitable for binding. With the Program Director’s approval, students needing additional time beyond the expected graduation date must register for dissertation continuation and pay applicable fees.

Disclosure of Education/Training Outcomes
Time to Completion:
Mean and median number of years that students have taken to complete the program from the time of program entrance has been 4 years.

Required Internship:
The program has had a 100% placement rate for those students seeking internships in 2006, 2007 and 2008.

Internship Match Rate:
Number and percentage who obtained paid internships (2006 – (8) 100%; 2007 – (13) 81.5%; 2008- (16) 88%) Number and percentage who obtained APPIC internships (2006 – (8)100%; 2007 – (14) 87.5%; 2008- (16) 88%)
Number and percentage who obtained APA internships (2006 – (3) 37.5%; 2007 – 0%; 2008-(1) 6%)
Obtained 2-year internships: not applicable

Cost:
Tuition = $21,462 annually (At the current rate, total program tuition is projected to be $85,898). A quarterly continuation fee ($500) is assessed for completion of clinical dissertation beyond the expected graduation date.

Attrition:
Number and percentage of students completing the program since inception in 2003.

<table>
<thead>
<tr>
<th>Year of Matriculation</th>
<th># Enrolled</th>
<th># Graduated with Doctorate</th>
<th># Still Currently Enrolled</th>
<th># No Longer Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>8</td>
<td>8 (100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>15</td>
<td>14</td>
<td>1 (6%)</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>21</td>
<td>19</td>
<td>2 (9%)</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>22</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>24</td>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Licensure: Not applicable at this time.

ADMISSIONS
The Clinical Psychology Program considers applicants who possess the academic and professional promise necessary to become competent, caring members of the health care community. The program requires an interview with the applicant before a final decision is made concerning admission into the program.

Requirements
To be considered for admission within our competitive selection process one must:
1. Possess a bachelor’s degree from a regionally accredited college or university.
2. Possess a minimum cumulative GPA of 3.00 on a 4.0 scale. Only for Fall-09 admission into the PsyD program, excellent candidates with a cumulative GPA between 2.75 and 3.00 will also be considered.
3. Submit Graduate Records Examination (GRE) general test scores; the test must have been taken no earlier than January 1, 2004. The Midwestern University institution code for the GRE is 1769. For more information about the GRE, contact Educational Testing Services (ETS) at 1-866-473-4373 or visit www.gre.org. Or you may substitute MCAT, GMAT, LSAT, PCAT or Miller’s Analogies Test.
4. Reflect a people/service orientation through community service or extracurricular activities.
5. Reflect proper motivation for and commitment to health care 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.
7. Abide by Midwestern University’s Drug-Free Workplace and Substance Abuse Policy;
8. Pass a criminal background check.
9. Complete 18 semester hours in psychology, including:
   • Introductory/General Psychology
INTERNATIONAL STUDENTS: Must complete a minimum of 30 semester hours of coursework in the United States. Of the 30 semester hours, 6 hours must be in non-remedial English composition and 3 hours in speech/communication.

Application Process
To be considered for admission to the Clinical Psychology Program, students must submit the following items to the Office of Admissions:

1. A properly completed application. The application, forms and instructions can be downloaded at www.midwestern.edu; click on the IL Clinical Psychology Program section. For questions about the application or admissions process, you may contact the Office of Admissions at 800/458-6253 or e-mail at admisill@midwestern.edu;
2. A nonrefundable, nonwaivable application fee of $50;
3. Two properly signed and sealed letters of recommendation from professionals who know the applicant well (teachers, advisors, professional colleagues or supervisors);
4. Personal statement reflecting the applicant’s goals and a self-appraisal of qualification for the profession;
5. Current resume;
6. Official transcripts from all postsecondary schools attended; and
7. Standardized test scores (GRE or substitute)

Send all application materials to:
Office of Admissions
Midwestern University
555 31st St.
Downers Grove, IL 60515

The student should notify Midwestern University of any changes to the mailing address and e-mail address.

All requests for withdrawing an application must be done in writing.

Completed applications are reviewed to determine the applicant’s eligibility for an interview, conducted on the Midwestern University campus during several admission days throughout the admissions cycle. The personal interview is the final step in the application process. Upon completion of the interview, admissions decisions are made and the Dean—via the Office of Admissions—notifies each applicant of the admissions decision.

For those admitted to the Doctor of Psychology Program, a nonrefundable tuition deposit to reserve a seat in the entering class will be required by a date stipulated in the matriculation agreement. The tuition deposit is applied toward the tuition due for the first quarter of study.

Transfer of Credit
In order to receive credit for previous coursework completed at other institutions prior to matriculation at Midwestern University, students must submit a Transfer of Credit Request Application prior to registration. The transfer of credit has the following conditions:

- A maximum of 40 quarter hours of credit for coursework completed prior to matriculation may be considered;
- Transferred course credit is limited to graduate level courses from recognized, regionally accredited degree granting institutions;
- Credit is not transferred for clinical internship;
- Credit may be awarded for required courses and practicum experiences from other doctoral programs;
- Credit may only be awarded for courses in which a grade of B or higher was attained;
- The program may require a competency examination to determine satisfactory performance before awarding credit for a course; and
- Credit can only be awarded for courses completed within a seven-year period before matriculation.

Application Deadlines
Admissions decisions will be made on a rolling basis. Applicants are advised to complete the application file as early as possible to ensure timely consideration.

Technical Standards for Admission
A candidate for the Doctor of Psychology in Clinical Psychology degree must have abilities and skills of five varieties, including: I) observation; II) communication; III) motor; IV) intellectual, conceptual, integrative, and quantitative; and V) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but a candidate should be able to perform in a reasonably independent manner.

I. Observation: A 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 somatic sensation and is enhanced by the functional use of all of the other senses.

II. Communication: A candidate must be able to communicate effectively, efficiently and sensitively with patients in both oral and written form and be able to perceive nonverbal communication.

III. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the sense 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.
IV. 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 fashion. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

V. Behavioral and Social Attributes: A candidate must possess the emotional health required for full utilization of his/her 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. They 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 all personal qualities required during the educational process.

Matriculation Process
The matriculation process begins after an applicant receives notification of his/her acceptance into the Doctor of Psychology Program of the College. The student must submit both a signed matriculation agreement and deposit to the Office of Admissions. The student must also:

1. Submit deposit monies by the dates designated in his/her matriculation document. The entire deposit is applied toward the student’s first-quarter tuition.
2. Submit official final transcripts from all colleges attended post-high school by deadline of two weeks (14 calendar days) prior to the first day of classes. For students who are accepted to MWU less than one month prior to the first day of classes, they 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 made by the Office of the Dean of the college. If students fail to submit all official transcripts by the stated deadline, then their acceptance or continued enrollment in the college may be jeopardized.
3. Submit proof of immunization against measles, mumps, rubella, oral polio (opv), diphtheria, and hepatitis B.
4. Provide evidence of testing for tuberculosis within the last 12 months. A titer verifying immunity to the previously mentioned diseases may be required.
5. Submit proof of medical insurance coverage. The student may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of the student’s choice.
6. Submit proof of Illinois residency (this applies only to those students claiming Illinois residency).
7. For non-U.S. citizens/nonpermanent residents only, provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS.
8. Provide documentation that any additional coursework or service requirements stipulated by the admissions committee of the program has been completed.
9. Provide certification that they understand and meet the technical standards.
10. Submit additional documents as required by the Office of Admissions.
11. Sign authorization form allowing a criminal background check
13. Complete physical exam and submit form.

If the student either fails to satisfy the above matriculation requirements or omits falsifies information required on official admissions documents, the student automatically forfeits his/her seat in the program. Any individual accepted for admission to the Clinical Psychology Program of the College of Health Sciences, who does not comply with stated time lines for submission of all required materials, receives no further notification from CHS relative to forfeiture of his/her seat.

Reapplication Process
After receiving either a denial or end-of-cycle letter, a prospective student 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, the prospective student must complete and submit a new application and proceed through each step of the entire application process.

GRADUATION REQUIREMENTS
The M.A. degree is awarded if the following conditions are fulfilled for students in the Psy.D. Program:

1. Petition to the program for the awarding of the M.A. degree;
2. Satisfactory completion of 102 credit hours including all required 500 and 600 level nonclinical and clinical core courses, and clerkships;
3. Satisfactory completion of required practicum experiences;
4. Attainment of a cumulative grade point average of 2.75 or higher;
5. Successful completion and defense of clinical master’s thesis;
6. Full payment of all outstanding tuition and fees; and
7. Faculty and committee approval for awarding of the degree

To receive the Psy.D. in Clinical Psychology, the student must complete all requirements within seven years of matriculation.

To be eligible for graduation the student must meet the following requirements:

1. Satisfactory completion of 208-quarter hours of credit consisting of the required courses (123 credits), diagnostic practicum (9 credits), therapy practicum (9 credits), diagnostic practicum seminars (3 credits), therapy practicum seminars (3 credits), Interdisciplinary Core Course (1 credit), clerkship (2 credits), Clinical Dissertation (8 credits), and internship (50 credits).
2. Attainment of a cumulative grade point average of 2.75 or higher;
3. Satisfactory completion of the written Qualifying Examination;
4. Satisfactory completion of an approved one-year internship (2,000 work hours);
5. Satisfactory completion of a clinical dissertation including a successful oral defense and the submission of a copy for binding; and
6. Full payment of all outstanding tuition and fees.

REQUIREMENTS FOR FULL TIME STUDY IN RESIDENCE
A residency requirement must be satisfied as a condition of graduation. The requirement can be satisfied in either of the following ways:
• The successful completion with a minimum of twelve quarter hours of credit per term for three consecutive quarters, or
• The successful completion of 40 quarter hours within one twelve-month period including the summer quarter.

LICENSURE REQUIREMENTS
Licensure requirement and standards for professional practice vary from state to state and prospective students are urged to examine the requirements of the specific state in which they plan to practice. Currently APA accreditation is not necessary for graduates to become licensed in the State of Illinois. The Association of State and Provincial Psychology Boards can provide useful information on this issue.

CURRICULUM
Typical Schedule

YEAR 1
Fall Quarter
CORE 1399 Health Care Issues 1
PSYC 501 Professional Issues and Ethics 3
PSYC 502 Life Span Developmental I 3
PSYC 514 Research Methods and Design 3
PSYC 515 Tests and Measurements I 3
PSYC 520 Clinical Appraisal and Interviewing 3
PSYC 530 Introduction to Psychotherapy 3

Winter Quarter
PSYC 510 Statistics I 3
PSYC 516 Tests and Measurements II 2
PSYC 524 Intelligence Testing I 3
PSYC 525 Intelligence Testing II 2
PSYC 560 Cognitive-Affective Bases of Behavior 3
PSYC 570 Psychopathology I: Child and Adolescent 3
PSYC 582 Clerkship 1-3

Spring Quarter
PSYC 503 Life Span Developmental II 3
PSYC 526 Personality Assessment I 3
PSYC 527 Personality Assessment II: Projective Techniques 2
PSYC 550 Biological Bases of Behavior 3
PSYC 554 Social and Cultural Bases of Behavior 3
PSYC 572 Psychopathology II: Anxiety Based and Personality Disorders 3
PSYC 582 Clerkship 1-3
PSYC 665 Professional Writing 1

YEAR 2
Fall Quarter
PSYC 620 Advanced Assessment 3
PSYC 640 Introduction to Neuropsychology 3
PSYC 645 Family Systems Theory 2
PSYC 647 Group Dynamics: Applied Therapy and Counseling Techniques 2
PSYC 670 Psychopathology III: Psychotic and Depressive Disorders 3
PSYC 682 Practicum 3-9
PSYC 683 Practicum Seminar 1

Winter Quarter
PSYC 539 Counseling Modalities and Chemical Dependency 3
PSYC 632 Psychodynamic Approaches to Psychotherapy 3
PSYC 635 Marriage and Family Counseling and Therapy 3
PSYC 650 Psychopharmacology I 3
PSYC 682 Practicum 3-9
PSYC 683 Practicum Seminar 1

Spring Quarter
PSYC 610 Diversity in Clinical Psychology 3
PSYC 631 Cognitive Approaches to Psychotherapy 3
PSYC 636 Behavioral Therapies 3
PSYC 651 Psychopharmacology II 1
PSYC 680 Research Seminar 2
PSYC 681 Master Thesis 1
(For students petitioning for awarding of Master of Arts)
Awarding of Master of Arts Degree

YEAR 3

Fall Quarter
- PSYC 575: Psychiatric Rehabilitation 3
- PSYC 708: Mental Health Law 3
- PSYC 730: Advanced Psychotherapy Practice 3
- PSYC 731: Supervision and Consultation 1
- PSYC 782: Advanced Practicum 3-9
- PSYC 783: Advanced Practicum Seminar 1

Winter Quarter
- PSYC 538: Theories of Vocational Counseling 3
- PSYC 540: History and Systems 3
- PSYC 601: Advanced Professional Development 1
- PSYC 735: Crisis Intervention 3
- PSYC 740: Advanced Issues in Substance Abuse 3
- PSYC 771: Advanced Psychopathology 3
- PSYC 782: Advanced Practicum 3-9
- PSYC 783: Advanced Practicum Seminar 1

Spring Quarter
- PSYC 576: Comorbid Medical and Psychiatric Problems 3
- PSYC 637: Career Guidance and Counseling 3
- PSYC 711: Advanced Statistics 3
- PSYC 750: Advanced Psychopharmacology 3
- PSYC 781: Clinical Dissertation Seminar 1
- PSYC 782: Advanced Practicum 3-9
- PSYC 783: Advanced Practicum Seminar 1

YEAR 4

Fall Quarter
- PSYC 800: Internship 12.5
- PSYC 810: Clinical Dissertation 2

Winter Quarter
- PSYC 800: Internship 12.5
- PSYC 810: Clinical Dissertation 2

Spring Quarter
- PSYC 800: Internship 12.5
- PSYC 810: Clinical Dissertation 2

Summer Quarter
- PSYC 800: Internship 12.5
- PSYC 810: Clinical Dissertation 2

Note: The Clinical Psychology Program reserves the right to alter its curriculum however and whenever it deems appropriate.

COURSE DESCRIPTIONS

Core 399 Health Care Issues
Changes in our health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The various roles the health care professions play on a medical team will be introduced to the students using practitioner-patient demonstrations utilizing a surrogate patient. Additional lectures will introduce students to the Health Insurance Portability and Accountability Act (HIPAA) and the concept of biomedical research.
1 credit

PSYC 501 Professional Issues and Ethics
The legal, ethical, and professional issues are discussed in the context of the delivery of mental health services. These issues include American Psychological Association ethical standards, privacy issues, confidentiality, mental health codes, mental health law and legislation, licensure, ethical standards in research, confidentiality in insurance and managed care contexts, and ethical standards in private practice, schools, hospitals and clinics, community settings, and government. 3 credits

PSYC 502 Life Span Development I
This course examines the major developmental issues from birth through adolescence. The topics include normal and abnormal development in the context of physical, biological, cognitive, social, and emotional functioning. Topics include a study of models of development including learning theory, cognitive theory (Piaget), and Freudian and neo-Freudian theories. Speech and language development are also examined as a basis for later human cognition. Developmental factors related to issues of culture, ethnicity, disabilities, and gender are addressed.
3 credits

PSYC 503 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 such as culture, gender, religion, ethnicity and cohort are emphasized.
3 credits
Prerequisite: PSYC 502 Life Span Developmental I

PSYC 510 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. Topics include complex factorial ANOVA, Repeated Measures ANOVA, multiple regression, power analysis, MANOVA, and factor analysis.

3 credits
Prerequisite: PSYC 514 Research Methods and Design

**PSYC 514 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.

3 credits

**PSYC 515 Tests and Measurements I**
This is the first course in a two course-sequence about the measurement of individual differences designed for students in the clinical psychology program. This course examines the philosophical, historical, and methodological foundations of psychological testing, assessment, and measurement. The course focuses on the statistical basis of validity, reliability, tests of intelligence, personality assessment, counseling and assessment, neuropsychological assessment, computer-assisted assessment, and the assessment of persons with disabilities.

3 credits

**PSYC 516 Tests and Measurements II**
This course continues the examination of the measurement of individual differences focusing on the measurement of behavior, affect, achievement, relationships, attitudes, traits, and self-concept that are appropriate in clinical practice. The practical decision making process for clinicians will be emphasized in the context of existing research findings to highlight measurements in various domains for individual change, adaptive testing, test bias, and understanding of cultural influences on test construction, outcome, and recommendations.

2 credits
Prerequisite: PSYC 515 Tests and Measurements I

**PSYC 520 Clinical Appraisal and Interviewing**
This beginning course provides the student with basic principles and techniques of clinical interviewing and assessment. The approach is both didactic and experiential with the student conducting mock interviews of patients. Emphasis is placed not only on understanding verbal information but also on meta-communication including body language, voice quality, and pacing, and other aspects of nonverbal interpersonal interaction. Students are introduced to report writing, inferential analysis, diversity issues related to appraisal and interviewing, and psychological inference.

3 credits

**PSYC 524 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.

3 credits
Prerequisite: PSYC 520 Clinical Appraisal and Interviewing

**PSYC 525 Intelligence Testing II**
The purpose of this course is to emphasize using the 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 lecture, demonstration, practice administrations, and individual checkouts of competencies in test administration. The students receive constructive feedback in the areas of test administration, scoring, interpretation of results and report writing.

2 credits
Prerequisite: Concurrent enrollment in PSYC 524 Intelligence Testing I

**PSYC 526 Personality Assessment I**
This course introduces the student to the administration, interpretation, and scoring of the objective tests for personality assessment. Tests examined include the MMPI2, 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.

3 credits
Prerequisite: PSYC 524 Intelligence Testing I; PSYC 525 Intelligence Testing II

**PSYC 527 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.

2 credits
Prerequisites: Concurrent enrollment in PSYC 526 Personality Assessment I
PSYC 530 Introduction to Psychotherapy
From a historical basis, this course introduces the student to the various psychotherapeutic traditions. Treatment approaches examined include psychoanalytic, psychodynamic, Gestalt, behavioral, cognitive/behavioral, interpersonal, and others. Through both didactic and experiential means, the student will be exposed to the fundamental aspects of each treatment approach. Also reviewed is the current literature on empirically verified treatment approaches as well as issues related to culture, ethnicity, gender, and disabilities.
3 credits
Prerequisite: Concurrent enrollment in PSYC 501 Professional Issues and Ethics

PSYC 538 Theories of Vocational Counseling
This course reviews the significant theories associated with vocational counseling including prominent career counseling models. Career counseling in schools, institutions of higher learning, and other work settings will be reviewed. Issues affecting culture, gender, and special populations will be addressed.
3 credits
Prerequisite: PSYC 516 Tests and Measurements II; PSYC 520 Clinical Appraisal and Interviewing

PSYC 539 Counseling Modalities and Chemical Dependency
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.
3 credits
Prerequisite: PSYC 520 Clinical Appraisal and Interviewing; PSYC 530 Introduction to Psychotherapy

PSYC 540 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.
3 credits
Prerequisites: PSYC 530 Introduction to Psychotherapy; PSYC 554 Social and Cultural Bases of Behavior; PSYC 560 Cognitive-Affective Bases of Behavior

PSYC 550 Biological Bases of Behavior
This course examines the historical and current understandings of the physical/neurological underpinnings of human behavior. Recent advances in imaging techniques are examined as they relate to our understanding of the structure and function of the neurological substrate in human functioning.
3 credits
Prerequisite: PSYC 502 Life Span Developmental I

PSYC 554 Social and Cultural Bases of Behavior
This course examines the influence of socioeconomic and cultural influences on behavior. Normative and abnormal behavior is examined in the biopsychosocial context. Also covered is the assessment of individual behavior in new or unfamiliar sociocultural contexts as it relates to assessment of psychopathology.
3 credits
Prerequisite: PSYC 502 Life Span Developmental I

PSYC 560 Cognitive-Affective Bases of Behavior
Normative human functioning is examined in the context of various theories of learning, behavior and emotion. Application of the theories and models to an understanding of normal human behavior and psychopathology is reviewed. Historic and current research is examined in support of various perspectives in relation to gender, aging, cultural, ethnic and disability issues.
3 credits
Prerequisite: PSYC 502 Life Span Developmental I

PSYC 570 Psychopathology I: Child and Adolescent
This course provides the student with a basic understanding of the major psychological disorders of childhood and adolescence. Topics include an examination of development disorders, impulse disorders, and disorders of behavior and affect. Child and adolescent psychopathology are examined in a biopsychosocial context. Theories on the etiology of the disorders are reviewed in the context of both diagnosis and treatment.
3 credits
Prerequisite: PSYC 520 Clinical Appraisal and Interviewing

PSYC 572 Psychopathology II: Anxiety-Based and Personality Disorders
This course reviews the theory and research underlying the anxiety-based and personality disorders. Topics include generalized anxiety disorder and variations, phobias, dissociative and somatoform disorders, personality disorders, and psychosexual disorders. Disorders are reviewed from a biopsychosocial perspective.
3 credits
Prerequisite: PSYC 570 Psychopathology I

PSYC 575 Psychiatric Rehabilitation
This course examines the neuropsychiatric and neurobehavioral disorders in the practice of clinical medicine.
neuropsychology and behavioral medicine. Various disorders are reviewed from neuroanatomical, medical, neuropsychological, rehabilitation, and practical clinical viewpoints. The spectrum of disorders include such conditions as traumatic brain injury, right hemisphere syndromes, dementia, aphasias, seizure disorders, arteriovenous malformations, and neurotoxic disorders.

3 credits
Prerequisite: PSYC 550 Biological Bases of Behavior

PSYC 576 Comorbid Medical and Psychiatric Problems
This course examines various medical conditions and diseases within the context of the psychosocial factors or psychiatric disorders often associated with them. Many medical conditions or diseases such as cancer, cardiovascular disease, and diabetes are affected by psychosocial factors that can impact on the course of the disease or exacerbate symptoms. This course reviews the diagnosis and treatment of associated comorbid psychiatric disorders that may be present with the physical disease.

3 credits
Prerequisites: PSYC 550 Biological Bases of Behavior; PSYC 572 Psychopathology II

PSYC 582 Clerkship
The clerkship is a supervised field experience for clinical psychology students, focusing on the development of clinical inquiry skills, assessment ability, knowledge of community resources, diversity issues, and consultation skills. The clerkship is a supervised experience that may take place at hospitals, clinics, human service agencies, schools, shelters, or faith-based institutions. Students participating in the clerkship are under the direct supervision of program faculty and also receive additional supervision from advanced students in the clinical psychology program.

1-3 credits (repeatable)
Prerequisite: Approval of Program Director and the Director of Training

PSYC 601 Advanced Professional Development
This course examines the role of the psychologist in divergent settings. Topics include models and techniques of supervision, practice development and management, documentation needs, record keeping, and information protection in light of the latest DHL and HIPPA regulations and liability management.

1 credit
Prerequisite: PSYC 501 Professional Issues and Ethics

PSYC 610 Diversity in Clinical Psychology
Using a biopsychosocial model, this course examines the impact of culture, race, ethnicity, gender, 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, 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.

3 credits
Prerequisites: PSYC 520 Clinical Appraisal and Interviewing; PSYC 554 Social and Cultural Bases of Behavior

PSYC 620 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. Formulating diagnostic conclusions, clinical report writing, research report writing, and examination of differential diagnoses are reviewed with consideration of diversity issues.

3 credits
Prerequisites: PSYC 520 Clinical Appraisal and Interviewing; PSYC 524 Intelligence Testing I; PSYC 525 Intelligence Testing II; PSYC 526 Personality Assessment I; PSYC 527 Personality Assessment II

PSYC 631 Cognitive Approaches to Psychotherapy
Starting with the pioneering work of Beck and Ellis to the current theory and practice of such therapists as Meichenbaum and Freeman, 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 populations.

3 credits
Prerequisites: PSYC 530 Introduction to Psychotherapy; PSYC 560 Cognitive-Affective Bases of Behavior

PSYC 632 Psychodynamic Approaches to Psychotherapy
Beginning with the seminal work of Freud, this course examines the theory and technique in the psychodynamic psychotherapy. Case studies are used to exemplify the various techniques used in the psychodynamic approach. The work of Freud, Klein, Kernberg, and Kohut among others will be reviewed illustrating the rich and diverse approaches within the psychodynamic tradition.

3 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy

PSYC 635 Marriage and Family Counseling and Therapy
Taking from family systems theory, this course examines the basic theories and assumptions underlying marriage and
family therapy while considering the biopsychosocial perspective. Using case studies, films, and videotapes the course examines fundamental techniques of both therapy and diagnostic evaluation such as the use and development of the genogram.

3 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy; PSYC 645 Family Systems Theory

PSYC 636 Behavioral Therapy
Beginning with the work of the major learning theorists such as Pavlov, Hull, Thorndike and Skinner, the course examines the basic theories and techniques that underlie the behavioral therapy approach in clinical psychology. Using recent studies in empirical verification of therapeutic approaches, the course will review the use of specific behavioral interventions with such disorders as anxiety, panic attack, phobia, and obsessive-compulsive disorder.

3 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy; PSYC 560 Cognitive-Affective Bases of Behavior

PSYC 637 Career Guidance and Counseling
This course focuses on the significant aspects of how psychological assessment and counseling techniques are used in the process of career formation and guidance. Procedures for effective assessment and counseling techniques are reviewed considering diversity issues. The use of decision trees, career counseling checklists, and multicultural career assessment and counseling issues will be discussed.

3 credits
Prerequisite: PSYC 538 Theories of Vocational Counseling

PSYC 640 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 a neurological base. Topics covered include neurological syndromes such as cerebral vascular accidents (CVA’s), head trauma and concomitant brain injury, seizure disorders, and various forms of dementia. Case studies and neuropsychological test data highlight each syndrome.

3 credits
Prerequisite: PSYC 516 Tests and Measurements II; PSYC 550 Biological Bases of Behavior

PSYC 645 Family Systems Theory
The family as a system will be reviewed examining the external and internal boundaries, internal hierarchy, self-regulation through feedback, and lifecycle change. Major theory and research will be discussed within the context of relevant cultural, age, gender, and ethnic factors.

2 credits
Prerequisite: PSYC 502 Life Span Development I; PSYC 503 Life Span Development II; PSYC 520 Clinical Appraisal and Interviewing

PSYC 647 Group Dynamics: Applied Therapy and Counseling Techniques
Based on the historic and contemporary use of group counseling techniques, this course uses both didactic and experiential methods in introducing the student to the use and understanding of group dynamics and techniques. The students will learn not only the theoretical basis of group therapy, but will also be exposed to counseling applications appropriate for a diverse population.

2 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy; PSYC 554 Social and Cultural Bases of Behavior

PSYC 650 Psychopharmacology I
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.

3 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy; PSYC 550 Biological Bases of Behavior

PSYC 651 Psychopharmacology II
This course is a continuation of PSYC 650. The emphasis is upon the use of mood stabilizers, anticonvulsants, antipsychotic medications, and those designed to alleviate the side effects of psychoactive medication in practice situations.

1 credit
Prerequisite: PSYC 650 Psychopharmacology I

PSYC 665 Professional Writing
This course introduces the student to the basic foundations of professional writing including the use of the American Psychological Association style of writing. The course examines several applications of writing style to such diverse activities as research articles, report writing, clinical chart documentation, SOAP charting, and psychodiagnostic report writing.

1 credit
Prerequisite: PSYC 514 Research Methods and Design; PSYC 520 Clinical Appraisal and Interviewing
PSYC 670 Psychopathology III: Psychotic and Depressive Disorders
This course reviews the theory and research underlying the psychotic and depressive disorders as well as other disorders such as the adjustment disorders, eating disorders, suicide and cognitive disorders. The course emphasizes the clinical presentations and diagnostic differentiations. Case studies introduce the student to the variations in symptom presentation leading to more accurate diagnostic impressions. The importance of cultural, gender, ethnic, age, and disability factors will be discussed in relation to the psychiatric disorders.
3 credits
Prerequisite: PSYC 572 Psychopathology II

PSYC 680 Research Seminar
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 basis for evidence based practice.
2 credits
Prerequisites: PSYC 510 Statistics I; PSYC 514 Research Methods and Design

PSYC 681 Master Thesis
Students who select the option of the awarding of a master’s degree following completion of the first two years of the curriculum with a successful defense of a clinical thesis must register for this course.
1 credit
Prerequisite: Approval of Program Director

PSYC 682 Practicum
This course 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.
3-9 credits (repeatable)
Prerequisite: Approval of Director of Training

PSYC 683 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 a typical clinical setting.
1 credit (repeatable)
Prerequisite: Concurrent enrollment in PSYC 682 Practicum and approval of Director of Training

PSYC 708 Mental Health Law
This course provides an overview of the judicial/legal aspects as they pertain to the practice of psychology. Risk management considerations, forensic psychological issues, and other mental health law issues will be explored to address management of a clinical practice and a patient population.
3 credits
Prerequisite: PSYC 501 Professional Issues and Ethics; PSYC 601 Advanced Professional Development

PSYC 711 Advanced Statistics
This course focuses on clinical research with emphasis on complex research design and multivariate analysis. Particular attention is given to the application of research methodology, and psychometric issues regarding theory and practice. Computer applications for statistical analysis is emphasized.
3 credits
Prerequisites: PSYC 510 Statistics I; PSYC 514 Research Methods and Design; PSYC 665 Professional Writing; PSYC 680 Research Seminar

PSYC 730 Advanced Psychotherapy Practice
The course is designed to assist the student in training to develop a personal approach to psychotherapy practice, based upon their training in theoretical models and treatment, and their individual personality. The course focuses on using the student’s theoretical model to conceptualize their clients and to provide appropriate treatment modalities while considering significant biopsychosocial and diversity factors. Case management and ongoing evaluation are discussed.
3 credits
Prerequisites: PSYC 631 Cognitive Approaches to Psychotherapy; PSYC 632 Psychodynamic Approaches to Psychotherapy; PSYC 635 Marriage and Family Counseling and Therapy; PSYC 636 Behavioral Therapy; PSYC 651 Psychopharmacology II

PSYC 731 Supervision and Consultation
This course examines the consultative and supervisory processes and reviews the pertinent theories and practice models for supervision and consultation in a variety of employment settings.
1 credit
Prerequisite: PSYC 601 Advanced Professional Development; PSYC 610 Diversity in Clinical Psychology

PSYC 735: Crisis Intervention
This course examines the psychological and physiological impact of crisis situations on individuals and systems. The course will review the acute reactions to crisis, adaptations to trauma, and practical implications for counseling and therapy. Multiple crisis situations will be explored in relation to a variety of treatment and intervention models.
3 credits
Prerequisite: PSYC 601 Advanced Professional Development; PSYC 631 Cognitive Approaches to Psychotherapy; PSYC 632 Psychodynamic Approaches to Psychotherapy; PSYC 645 Family Systems Theory; PSYC 651 Psychopharmacology II

**PSYC 740 Advanced Issues in Substance Abuse**

This course provides an extended examination of chemical dependence and other addictive behaviors begun in PSYC 539. Major theories of etiology, dynamics, and psychopathology of substance abuse are critically reviewed. Assessment, treatment, and case management are explored within the biopsychosocial perspective and diversity issues.

3 credits
Prerequisite: PSYC 539 Counseling Modalities and Chemical Dependency; PSYC 640 Introduction to Neuropsychology

**PSYC 750 Advanced Psychopharmacology**

This advanced course focuses on the management of individual client caseloads as it relates to the psychopharmacologic agents that clients are receiving. Emphasis will be placed on the efficacy of the specific psychopharmacologic agent and the psychotherapeutic modality being used. Current evidence based practice principles will be emphasized.

3 credits
Prerequisites: PSYC 651 Psychopharmacology II; PSYC 670 Psychopathology III

**PSYC 771 Advanced Psychopathology**

This advanced course focuses on the clinical manifestations of psychopathology of the major clinical entities of children, adolescents, and adults as identified in the current research record. The course will examine the major differences seen among cultural groups, gender, and persons with disabilities. The wide range disorders presented in the Diagnostic and Statistic Manual of Mental Disorders Fourth Edition Text Revision will be reviewed in the context of current research studies.

3 credits
Prerequisite: PSYC 610 Diversity in Clinical Psychology; PSYC 670 Psychopathology III; PSYC 680 Research Seminar

**PSYC 780 Clinical Dissertation Development**

This course focuses on the development of the clinical dissertation. Students identify an area of clinical or empirical research and complete development of the clinical dissertation proposal. Students receive consultation from the clinical dissertation committee as well as class members in development of the proposal.

1 credit
Prerequisite: PSYC 665 Professional Writing; PSYC 680 Research Seminar; and Approval of Program Director

**PSYC 781 Clinical Dissertation Seminar**

This seminar-based course focuses on the premise that the dissertation proposal has been accepted and that the student is preparing to execute the methodology of the proposal. All aspects of the clinical dissertation are reviewed.

1 credit
Prerequisite: PSYC 780 Clinical Dissertation Development

**PSYC 782 Advanced Practicum**

The advanced practicum involves direct clinical experiences at an approved training location. Students are enrolled while completing the required therapy practicum. Students completing a third year of approved practicum training are also enrolled in this course.

3-9 credits (repeatable)
Prerequisite: PSYC 682 Practicum and approval of Director of Training

**PSYC 783 Advanced Practicum Seminar**

This seminar 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. Students completing a third year of approved practicum training are also enrolled in this seminar.

1 credit (repeatable)
Prerequisite: PSYC 683 Practicum Seminar; Concurrent enrollment in PSYC 782 Advanced Practicum; and approval of Director of Training

**PSYC 800 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, clerkship, diagnostic practicum and therapy practicum experiences. In some approved circumstances students may complete the requirement in 24 months.

12.5 credits each quarter (50 total credit hours)
Prerequisites: PSYC 582 Clerkship; PSYC 682 Practicum; PSYC 780 Clinical Dissertation Development; PSYC 781 Clinical Dissertation Seminar; PSYC 782 Advanced Practicum; successful completion of Qualifying Examination; and approval of Director of Training

**PSYC 810 Clinical Dissertation**

Completion of clinical dissertation during fourth year of program.

2 credits each quarter (8 total credit hours)
Prerequisite: PSYC 781 Clinical Dissertation Seminar and approval of Program Director
PSYC 820 Clinical Dissertation Continuation
This course is reserved for students needing additional quarters beyond the fourth year in the program for completion of the required Clinical Dissertation. A fee is assessed with enrollment in this course. The university fee increases in the third quarter and beyond for enrollment in the course.
0 credits per quarter
Prerequisites: PSYC 810 Clinical Dissertation and approval of Program Director

PSYC 821 Internship Continuation
Reserved for students requiring additional time for completing internship requirements beyond fourth year in program. A continuation fee is assessed for enrollment in this course. The fee increases in the third continuation quarter and beyond.
0 credits per quarter
Prerequisites: PSYC 800 Internship and approval of Program Director

Electives
The Psy.D. Program has a very intensive schedule of required classes that limits the hours available for electives. But for students who wish to enhance their course of study in clinical psychology, the Psy.D. Program permits selection of elective courses in areas related to clinical psychology. Elective options are offered through the program and in some situations other university departments. Course availability varies from year to year, and could include courses in drug abuse, mental health issues related to aging/geropsychology, and rehabilitation. Some courses may be available in an independent study or directed readings format. Courses taken in an independent study or directed readings format require approval of the Program Director and a faculty member who would direct the course.

Another option for students interested in enhancing their understanding of mental health and aging issues, is a certificate program in gerontology. Depending upon availability, students may be able to earn a certificate in gerontology offered through the Midwestern Geriatric Education Center Summer Institute. This would require the successful completion of a 40-hour summer program. The students completing the 40-hour summer institute would earn a certificate in gerontology, but the hours would not count toward PsyD requirements

PSYC 542 Introduction to Rehabilitation Psychology
This course provides the student with a foundational knowledge of the theories and techniques in rehabilitation psychology. The course examines the historical development of this subspecialty in clinical psychology including the most recent developments in the field. The course introduces the student to the basic treatment of patients with cognitive, physical, and emotional difficulties. The principles of physical rehabilitation are integrated with those of cognitive rehabilitation.
3 credits

PSYC 544 Psychopathology and Aging
This course focuses on the age-related neuropsychological issues affecting older adults. With the aging population, there is increased interest in the cognitive, neurological, and psychiatric changes that occur over the lifespan. Topics include normal aging, psychiatric disorders in the elderly, neuropsychological disorders in later life, and assessment procedures in older adults.
3 credits

PSYC 603 Death and Dying
The psychological impact of the inevitability of loss of companions and friends and eventually one’s own life is examined in this course. Such issues as loss of cohorts, bereavement, disability, and dying are explored. The course also examines palliative treatments, interventions, and coping skills useful in dealing with death and dying. Theories associated with death and dying are reviewed to provide a context for clinical applications. Cultural and ethnic issues are discussed in the context of death and dying.
3 credits

PSYC 638 Treatment Interventions for Older Adults
This course focuses on the unique treatment needs of the elderly. Focusing on the latest information in empirically verified psychological treatments, the course covers such topics as psychotherapy in older adults, psychopharmacology, memory rehabilitation, and long-term care. Various models of retirement living options are considered as treatment needs increase over the elderly lifespan.
3 credits
Prerequisites: PSYC 503 Life Span Development II; PSYC 530 Introduction to Psychotherapy

PSYC 641 Pharmacological Aspects of Drug Abuse
This course focuses on the neurological bases for chemical dependency and the sequelae of long-term alcohol and chemical use. The course examines both the structural and functional changes that take place with the use of alcohol, and prescription and “street” drugs. The psychological impact of drug and alcohol use is also examined.
3 credits
Prerequisite: PSYC 539 Counseling Modalities and Chemical Dependency; PSYC 550 Biological Bases of Behavior
PSYC 646: Advanced Social-Cultural Bases of Behavior
This course is a continuation into the review of the role of societal and environmental factors in the production and maintenance of human behavior. The socio-cultural context of action with individual differences is discussed in the context of diversity issues.
2 credits
Prerequisite: PSYC 554 Social and Cultural Bases of Behavior

PSYC 648 Rehabilitation Counseling with Special Populations
This course examines some of the unique issues brought to the field of rehabilitative counseling by such special populations of children with comorbid psychiatric and other physical problems, AIDS patients, geriatric patients, and others. Optimal treatment approaches for each population are discussed.
3 credits
Prerequisite: PSYC 530 Introduction to Psychotherapy; PSYC 550 Biological Bases of Behavior; PSYC 640 Introduction to Neuropsychology

PSYC 660: Cognitive-Affective Bases of Behavior II
This is an expanded discussion of topics related to the cognitive-affective bases of behavior. Specific cognitive activities such as learning, perception, memory, mental representations and effective development are reviewed. In addition, the roles of motivation and emotion in behavior are discussed.
2 credits
Prerequisite: PSYC 560 Cognitive-Affective Bases of Behavior

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