MIDWESTERN UNIVERSITY

Midwestern University
Downers Grove, IL
Catalog 2007-2008

Midwestern University Catalog 2007–2008

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

Office of Admissions
www.midwestern.edu

Downers Grove Campus
555 31st Street
Downers Grove, Illinois 60515
(800) 458-6253
(630) 515-6171
E-mail: admissil@midwestern.edu
This catalog is published for the convenience of students at Midwestern University (MWU). It is intended to be effective as of June 1, 2007. Midwestern University reserves the right to make changes in any or all specifications contained herein and to apply such revision to registered and accepted students as well as to new admissions. No contractual rights between Midwestern University and any student are intended and none may be deemed to be created by issuance of this catalog.

Midwestern University provides equality of opportunity in its educational programs for all persons, maintains nondiscriminatory admission policies, and considers for admission all qualified students regardless of race, color, sex, sexual orientation, religion, national or ethnic origin, citizenship status, disability, status as a veteran, age, or marital status.

Midwestern University is not responsible for loss of or damage to a student’s personal property on premises owned or operated by the University, regardless of cause.

© Copyright Midwestern University 2007.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>President’s Message</td>
<td>5</td>
</tr>
<tr>
<td>Governance</td>
<td>5</td>
</tr>
<tr>
<td>Mission</td>
<td>6</td>
</tr>
<tr>
<td>History</td>
<td>6</td>
</tr>
<tr>
<td>Accreditation</td>
<td>7</td>
</tr>
<tr>
<td>Conferral of Degrees</td>
<td>7</td>
</tr>
<tr>
<td>Facilities</td>
<td>7</td>
</tr>
<tr>
<td>Housing</td>
<td>7</td>
</tr>
<tr>
<td>Americans With Disabilities Act Policy</td>
<td>8</td>
</tr>
<tr>
<td>Criminal Background Checks</td>
<td>8</td>
</tr>
<tr>
<td>Harassment/Hostile Working Environment</td>
<td>9</td>
</tr>
<tr>
<td>Admissions</td>
<td>9</td>
</tr>
<tr>
<td>Student Services</td>
<td>10</td>
</tr>
<tr>
<td>Student Financial Services</td>
<td>12</td>
</tr>
<tr>
<td>Academic Calendar 2007–2008</td>
<td>22</td>
</tr>
<tr>
<td>Chicago College of Osteopathic Medicine</td>
<td>25</td>
</tr>
<tr>
<td>Mission</td>
<td>25</td>
</tr>
<tr>
<td>Accreditation</td>
<td>25</td>
</tr>
<tr>
<td>Admissions</td>
<td>25</td>
</tr>
<tr>
<td>Instructional Program</td>
<td>29</td>
</tr>
<tr>
<td>Curriculum</td>
<td>29</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>31</td>
</tr>
<tr>
<td>MWU/MATRIX System: An Osteopathic Postdoctoral Training Institution (OPTI)</td>
<td>42</td>
</tr>
<tr>
<td>Student Academic Policies</td>
<td>42</td>
</tr>
<tr>
<td>Faculty</td>
<td>51</td>
</tr>
<tr>
<td>Chicago College of Pharmacy</td>
<td>67</td>
</tr>
<tr>
<td>Mission</td>
<td>67</td>
</tr>
<tr>
<td>Accreditation</td>
<td>67</td>
</tr>
<tr>
<td>Instructional Programs</td>
<td>67</td>
</tr>
<tr>
<td>Admissions</td>
<td>67</td>
</tr>
<tr>
<td>Entry-Level Pharm.D. Curriculum</td>
<td>72</td>
</tr>
<tr>
<td>Awards and Scholarships</td>
<td>75</td>
</tr>
<tr>
<td>Departments</td>
<td>77</td>
</tr>
<tr>
<td>Core Course Descriptions for the PS-I Through PS-III Years</td>
<td>77</td>
</tr>
<tr>
<td>Elective Course Descriptions</td>
<td>82</td>
</tr>
<tr>
<td>Nontraditional Pharm.D. Program</td>
<td>87</td>
</tr>
<tr>
<td>Curriculum</td>
<td>87</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>90</td>
</tr>
<tr>
<td>Student Academic Policies</td>
<td>91</td>
</tr>
<tr>
<td>Student Administrative Policies</td>
<td>94</td>
</tr>
<tr>
<td>Faculty</td>
<td>99</td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>103</td>
</tr>
<tr>
<td>Mission</td>
<td>103</td>
</tr>
<tr>
<td>Academic Policies</td>
<td>103</td>
</tr>
<tr>
<td>Physician Assistant Program</td>
<td>113</td>
</tr>
<tr>
<td>Definition of a Physician Assistant</td>
<td>113</td>
</tr>
<tr>
<td>Mission</td>
<td>113</td>
</tr>
<tr>
<td>Program Description</td>
<td>113</td>
</tr>
<tr>
<td>Accreditation</td>
<td>113</td>
</tr>
<tr>
<td>Degree: Master of Medical Science (M.M.S.) in Physician Assistant Studies</td>
<td>114</td>
</tr>
<tr>
<td>Admissions</td>
<td>114</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>117</td>
</tr>
<tr>
<td>Certification/Licensure Requirements</td>
<td>117</td>
</tr>
<tr>
<td>Curriculum</td>
<td>117</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>118</td>
</tr>
<tr>
<td>Faculty</td>
<td>122</td>
</tr>
<tr>
<td>Physical Therapy Program</td>
<td>123</td>
</tr>
<tr>
<td>Mission</td>
<td>123</td>
</tr>
<tr>
<td>Program Description</td>
<td>123</td>
</tr>
<tr>
<td>Program Objectives</td>
<td>123</td>
</tr>
<tr>
<td>Accreditation</td>
<td>124</td>
</tr>
<tr>
<td>Admissions</td>
<td>124</td>
</tr>
<tr>
<td>Evaluation of Student Performance</td>
<td>126</td>
</tr>
<tr>
<td>Time Limit for Completion of Coursework</td>
<td>127</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>127</td>
</tr>
<tr>
<td>Licensure Requirements</td>
<td>127</td>
</tr>
<tr>
<td>Curriculum</td>
<td>127</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>128</td>
</tr>
<tr>
<td>Faculty</td>
<td>139</td>
</tr>
<tr>
<td>Occupational Therapy Program</td>
<td>141</td>
</tr>
<tr>
<td>Mission</td>
<td>141</td>
</tr>
<tr>
<td>Program Description</td>
<td>141</td>
</tr>
<tr>
<td>Program Objectives</td>
<td>141</td>
</tr>
<tr>
<td>Accreditation</td>
<td>142</td>
</tr>
<tr>
<td>Admissions</td>
<td>142</td>
</tr>
<tr>
<td>Evaluation of Student Performance</td>
<td>145</td>
</tr>
<tr>
<td>Time Limit for Completion of Coursework</td>
<td>145</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>145</td>
</tr>
<tr>
<td>Licensure Requirements</td>
<td>145</td>
</tr>
<tr>
<td>Curriculum</td>
<td>145</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>146</td>
</tr>
<tr>
<td>Faculty</td>
<td>151</td>
</tr>
<tr>
<td>Biomedical Sciences Program</td>
<td>153</td>
</tr>
<tr>
<td>Mission</td>
<td>153</td>
</tr>
<tr>
<td>Program Description</td>
<td>153</td>
</tr>
<tr>
<td>Admissions</td>
<td>153</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>156</td>
</tr>
<tr>
<td>Curriculum</td>
<td>156</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>157</td>
</tr>
<tr>
<td>Faculty</td>
<td>162</td>
</tr>
<tr>
<td>Biomedical Sciences Program</td>
<td>153</td>
</tr>
<tr>
<td>Mission</td>
<td>153</td>
</tr>
<tr>
<td>Program Description</td>
<td>153</td>
</tr>
<tr>
<td>Admissions</td>
<td>153</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>156</td>
</tr>
<tr>
<td>Curriculum</td>
<td>156</td>
</tr>
<tr>
<td>Course Descriptions</td>
<td>157</td>
</tr>
<tr>
<td>Faculty</td>
<td>162</td>
</tr>
</tbody>
</table>
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. Goepinger, Ph.D.  
President & Chief Executive Officer

GOVERNANCE

Board of Trustees  
William D. Andrews,  
Chair  
Sr. Anne C. Leonard, C.N.D.,  
Vice Chair  
Gerrit A. van Huisstede,  
Secretary/Treasurer  
Kathleen H. Goepinger, Ph.D.,  
President & Chief Executive Officer  
The Honorable Jean L. Baxter, J.D.  
Michael J. Blend, Ph.D., D.O.  
Frank J. DiLeo  
John H. Finley, Jr., D.O.  
Gretchen R. Hannan  
Alexander Irvine  
John Ladowicz, M.B.A.  
Kevin D. Leahy  
Madeline R. Lewis, D.O.  
Robert M. Lockhart, Ph.D.  
W. Jay Lovelace  
Paul M. Steingard, D.O.

Officers and Administrators  
Kathleen H. Goepinger, Ph.D.  
President & Chief Executive Officer  
Arthur G. Dobbelare, Ph.D.  
Executive Vice President & Chief Operating Officer  
Gregory J. Gaus  
Senior Vice President & Chief Financial Officer  
Karen D. Johnson  
Vice President, University Relations  
Dean P. Malone  
Vice President, Business Services  
John R. Burdick, Ph.D.  
Dean, Basic Sciences, & Vice President, Clinic Operations
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 21 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, and the College of Dental Medicine (CDM) in 2006. 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 29 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.ncahigherlearningcommission.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:

- 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.
- 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 pharmacy and health science faculty offices.
- 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 provides space for administrative offices.

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 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 under “Disability Services” (http://mwunet.midwestern.edu/administrative/SS/ssSH_policy.htm).

**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 designees) 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/or dismissal from the program and University. Application and may result in denial of matriculation and/or dismissal from the program and University. 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/or dismissal from the program and University.

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 bar the student’s initial matriculation and/or continued enrollment.

6. Students with a positive criminal background check are individually responsible for checking the licensing and certification requirements in any state where the student is interested in participating in a preceptorship, internship, clinic or other rotation to determine whether or not their conviction may be a barrier to participation.

7. Students are required to disclose to the Dean of Students and appropriate Academic Dean any arrests, criminal charges, or convictions against them during their entire period of enrollment as a student at Midwestern University. Such arrests, criminal charges, or convictions may negatively impact a student’s ability to obtain and/or complete clinical rotations or preceptorships.

8. Midwestern University does not guarantee clinical rotations for students who have a history of felony or misdemeanor convictions.

**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 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 (http://mwunet.midwestern.edu/administrative/SS/ssSH_policy.htm).

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
Downers Grove, IL 60515
630/515-6171
800/458-6253
admissil@midwestern.edu

Office of Admissions
Midwestern University
19555 North 59th Avenue
Glendale, AZ 85308
623/572-3215
888/247-9277
admissaz@midwestern.edu
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 (http://mwunet.midwestern.edu/administrative/SS/ssStuHandbook.htm)
Midwestern University – Downers Grove Campus
University Senate Organizations

- Alternatives
- Catholic Student Association (Newman Center)
- Christian Medical Association (CMA)
- Cultural M-PAC (Medicine, Pharmacy And College of Health Sciences)
- Geriatrics Club
- Integrative Medicine Club
- Jewish Student Union
- Muslim Student Association (MSA)
- Sports Medicine Club

Chicago College of Osteopathic Medicine Student Council Organizations

- American College of Osteopathic Family Practice (ACOFP)
- American Medical Association/Medical Student Society (AM/A/MS)
- American Medical Student Association (AMSA)
- American Medical Women’s Association/National Osteopathic Women Physicians Association (AMWA/NOWPA)
- American Military Osteopathic Physicians and Surgeons (AMOPS)
- Asian-Pacific American Medical Student Association (APAMSA)
- CCOM Research Club
- Emergency Medicine Club
- International Health Education Awareness Group
- Medical Business Association (MBA)
- Sigma Sigma Phi
- Society for Teaching and Inspiring Life-Long Learning of Osteopathic Medicine (STILL)
- Student Osteopathic Internal Medicine Club
- 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

Chicago College of Pharmacy Student Council Organizations

- American Pharmacists Association Academy of Students Pharmacists (APhA-ASP)
- Association of Indian Pharmacists in America (AIPhA)
- Illinois Council of Health-Systems Pharmacists (ICHP)
- Kappa Pi Pharmaceutical Fraternity
- National Community Pharmacists Association (Entrepreneur’s Club)
- Phi Delta Chi Pharmacy Fraternity

- Phi Lambda Sigma
- Phi Chi
- Phi Pi Phi International Pharmaceutical Fraternity, Gamma Gamma Rho Chapter
- Student National Pharmaceutical Association (SNPhA)

College of Health Sciences Student Council Organizations

- Behavioral Medicine Club
- Pediatric Medicine Club
- Underserved Medicine Club

Physician Assistant Program

- American Academy of Physician Assistants (AAPA)
- PA Challenge Bowl
- 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 Occupational Therapy Association (SOTA)

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 the wellness/recreation facilities located on the campus in Downers Grove. 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 does not discriminate on the basis of race, color, national and ethnic origin, gender, sexual preference, or handicap in the administration of educational policies, admission policies, financial aid, employment, or any other University program or activity. It admits qualified students to all the rights, privileges, programs, and activities generally accorded or made available to students.

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 for 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 the Registrar. 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 made their first matriculation deposit will also receive on-line application instructions for the upcoming academic year and 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 Need-based 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. Up to $990,000 in institutional scholarships will be awarded to
incoming and returning students from each of the University’s three colleges with funding provided by the University’s School-As-Lender program. The scholarship amount will be $3,500 per student for the 2007-2008 academic year.

**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, 2007, through June 30, 2008.

**Student Loans**

**Medical Programs**

1. CCOM Alumni Association Loans: The number and amounts of these loans vary per year. Students are notified by the Office of Development & Alumni Relations when applications become available.

2. CCOM Student Loan Fund: This institutional loan program offers needy second, third, and fourth-year students up to $10,000 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.

3. 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. All applicants are required to submit parental information.

**All Programs**

1. Federal Perkins Loan: Qualified graduate students with exceptional financial need may borrow up to $2,500 from this campus-based loan program. The interest rate is 5%. 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 $40,500 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 <www.midwestern.edu/finaid>. 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 <www.midwestern.edu/finaid> 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 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.

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 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>CCOM (full time 2007 matriculants)</td>
<td>4 6</td>
<td>17%</td>
<td>2.00</td>
</tr>
<tr>
<td>CCOM (extended studies 2007 matriculants)</td>
<td>5 7</td>
<td>14%</td>
<td>2.00</td>
</tr>
<tr>
<td>CCP–Pharm.D.</td>
<td>4 6</td>
<td>17%</td>
<td>2.00</td>
</tr>
<tr>
<td>CHS–Biomedical Sciences M.B.S.</td>
<td>2 4</td>
<td>25%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS–PA M.M.S.</td>
<td>2.25 (27 mos.) 3.33 (40.5 mos.)</td>
<td>30%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS–D.P.T.</td>
<td>2.80 (34 mos.) 4.25 (51 mos.)</td>
<td>33%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS–M.O.T.</td>
<td>2.25 (27 mos.) 3.33 (40.5 mos.)</td>
<td>30%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS–Psy.D.</td>
<td>4 7</td>
<td>14%</td>
<td>2.75</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>3 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 2007–2008 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 nor 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 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 the Office 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
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 Noninstitutional 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. Federal PLUS Loan
6. Federal Pell Grant
7. National SMART Grant
8. Federal SEOG
9. Other Title IV Aid Programs
10. Other Federal Sources of Aid (PCL)
11. Other state or institutional aid *
12. Institutional Aid (MWU Need-based Scholarship, departmental loans and scholarships)**
13. 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.
   *** MWU will only refund monies to a student who does not owe a repayment of noninstitutional 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 college dean.

** 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.

We encourage all students to pay their bills via our secure website at http://ononline.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. University staff will write student ID numbers on checks where a student has not done so already. If you prefer not to have your student ID number written on your check, please submit your payment by cashier’s check, money order, or cash. 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 activity fee. Students enrolled in part of an academic year will pay a pro-rated amount. The student activity fee is charged annually and funds such areas as recreation, sports and intramurals; counseling services, operation of the student union/lounge, student council and 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. A student must make arrangements with the Office of Student Financial Services during the first week of the academic year.
2. Payment plans will be effective for the entire quarter.
3. 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.
4. 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.
5. The plan is interest free.
6. All financial aid funds must be applied toward the unpaid balance due first before accepting student payments.
7. A 1% late fee will be applied to accounts at 10 days late, and the balance will be accelerated to fully due.
8. 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.)
9. Student must not have been late on any prior MWU payment plans.
10. A student’s account must be paid in full from the previous quarter.

Prepayment Plans
A prepayment plan for tuition is available to all students. Please contact the Office of Student Financial Services for further details.

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 highly recommended. Direct deposits are typically available 2-3 days prior to the date a paper check would be received in the mail. 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 Student Financial Services Office will follow up with students to collect past due accounts. This will enable the Student Financial Services Office 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.
2. Past due notices will be sent via email or paper.
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. Student must reapply for admission to 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 Student Financial Services Office 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., nonarrival of financial aid, scholarship, or grant funds by the due date);

b. A payment plan has been approved by the Student Financial Services Office;

c. Any documented extraordinary circumstance that prevents the student from paying his/her account balance on time.

Returned Checks
A $25 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 2007-2008)
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>$38,211</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$42,517</td>
</tr>
<tr>
<td>CCP</td>
<td>In-State</td>
<td>$24,386</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$26,553</td>
</tr>
<tr>
<td>PA</td>
<td>In-State</td>
<td>$26,997</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$28,941</td>
</tr>
<tr>
<td>PT</td>
<td>In- and Out-of-State</td>
<td>$25,428</td>
</tr>
<tr>
<td>OT</td>
<td>In-State</td>
<td>$24,351</td>
</tr>
<tr>
<td></td>
<td>Out-of-State</td>
<td>$26,284</td>
</tr>
<tr>
<td>Psy.D.</td>
<td>In- and Out-of-State</td>
<td>$21,176</td>
</tr>
<tr>
<td>MBS</td>
<td>In- and Out-of-State</td>
<td>$23,222</td>
</tr>
<tr>
<td>Non-traditional Pharm.D. (didactic)</td>
<td>In- and Out-of-State</td>
<td>$610/credit hr.</td>
</tr>
<tr>
<td>Non-traditional Pharm.D. (experiential)</td>
<td>In- and Out-of-State</td>
<td>$251/credit hr.</td>
</tr>
</tbody>
</table>

For the 2007-2008 academic year, all programs with the exception of the Nontraditional Pharm.D. Program, have a yearly activity fee (currently $430). 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).
**ACADEMIC CALENDAR 2007–2008**

**SUMMER QUARTER 2007**
- PS NTPD Summer Quarter
- MS III/IV Clinical Rotations Begin
- PS III AGO Rotation 1/PS IV AGO Rotation 5
- PA II Rotations Begin
- PA I, PT I Orientation
- PA I OT II PT I/II/III MBS II Classes 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
- PA I PT I/II/III OT II MBS II Last Day of Classes
- PA I PT I/II/III OT II MBS II Quarter Break

**FALL QUARTER 2007**
- MS I Orientation
- MS I Classes Begin
- PS IV Fall Quarter
- PS IV Non-AGO Rotation 3
- PS I OT I MBS I PSY I Orientation
- Labor Day (No Classes) Library Closed
- PSY IV Internship
- PS NTPD Fall Quarter
- MS II 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
- CCP AGO/CHS Fall Graduation
- PS NTPD I Orientation/Mandatory Attendance
- White Coat Ceremony
- PS IV Pharm D Seminar
- PS IV Non-AGO Rotation 4
- PS I/II/III/IV Career Fair
- PS NTPD II Orientation/Mandatory Attendance
- 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
- PS IV Pharm D Seminar
- 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 Quarter Break
- OT/MOT Degree Completion Date

**WINTER QUARTER 2007-08**
- PS IV Winter Quarter
- PS IV Non-AGO Rotation 5
- PS NTPD Winter Quarter
- 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
- PT III Practicum III
- PA II Mid-Year Term on Campus

**JUNE 4, 2007 – AUGUST 24, 2007**
- June 4-August 24, 2007
  - June 11, 2007
  - June 4-July 13, 2007
  - June 4, 2007
  - June 7-8, 2007
  - June 11, 2007
  - June 18-22, 2007
  - July 2, 2007
  - July 4, 2007
  - July 9-August 5, 2007
  - July 13, 2007
  - July 16-August 24, 2007
  - August 17, 2007
  - August 20-24, 2007
  - August 24, 2007
  - August 24, 2007
- August 25-September 3, 2007

**AUGUST 6, 2007– NOVEMBER 16, 2007**
- July 30-August 3, 2007
- August 6, 2007
- August 27-November 16, 2007
- August 27-October 5, 2007
- August 29-30, 2007
- September 3, 2007
- September 4, 2007
- September 4-November 16, 2007
- September 4, 2007
- September 4, 2007
- September 7, 2007
- September 15, 2007
- September 28, 2007
- October 5, 2007
- October 8-November 16, 2007
- October 16-17, 2007
- November 3, 2007
- November 9, 2007
- November 12-16, 2007
- November 16, 2007
- November 16, 2007
- November 17-25, 2007
- November 20, 2007

**NOVEMBER 26, 2007 – FEBRUARY 22, 2008**
- November 26, 2007
- November 26, 2007
- November 26, 2007-February 1, 2008
- December 3-14, 2007
PS IV Winter Recess
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

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
MS I/II PS I/II III PA I PT I/II OT I/II MBS I/II PSY I/II III Quarter Exams
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 Spring Recess

SPRING QUARTER 2008
PS III Spring Quarter
PS NTPD Spring Quarter
PS III AGO Rotation 3/Non-AGO Rotation 1
MS I/II PS I/II PA I PT I MBS I/II PSY I/II III Classes Resume
PSY IV Internship
PT II Practicum
OT I/II Fieldwork I (off-campus)
OT I/II Classes Resume (on-campus)
CCP Graduation Ceremonies for Non-AGO Students
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 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
MS IV Last Day of Rotations
PA I Quarter Break
OT I MBS I/II PSY I/II III Quarter Break
OT II Quarter Break
PT I Practicum I
MS III Last Day of Rotations
PA II Date of Progress to PA III Status
CCOM/ CHS Graduation Ceremonies
Memorial Day (No Classes) Library Closed
OT III Fieldwork Level II Fieldwork I

MARCH 3, 2008 – May 16, 2008
March 3, 2008
March 7, 2008
March 9, 2008
March 10, 2008
April 4, 2008
April 7, 2008
April 25, 2008
May 9, 2008
May 10-16, 2008
May 12-16, 2008
May 16, 2008
May 18, 2008
May 17-26, 2008
May 17-26, 2008
May 17-June 1, 2008
May 17-June 8, 2008
May 17-June 8, 2008
May 17-June 8, 2008
May 23, 2008
May 26, 2008
May 27-August 15, 2008
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.

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 2006, CCOM received more than 3,500 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>Subject</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</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 an 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 2006 had an average MCAT score of 26. 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.

**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: ACOMAS Application – January 1, 2008 Deadline**

  To initiate the application process, all applicants must apply online via the centralized application service administered by ACOM at http://aacomas.aacom.org/. The ACOMAS 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 2005) and official transcripts directly to ACOMAS. The Office of Admissions will not accept MCAT scores or transcripts submitted directly to Midwestern University. The deadline for submission of the ACOMAS application is January 1.

- **Step Two: CCOM Supplemental Application – March 3, 2008 Deadline**

  Upon receipt of the ACOMAS 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 their resume, essay responses, 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 3, 2008.

- **Step Three: Letters of Recommendation – March 3, 2008 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 3, 2008. 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 3, 2008 Deadline**

  All application materials, including the ACOMAS application, MCAT scores (as reported to ACOMAS), 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 3, 2008. Only completed applications received by the Office of Admissions on or before the deadline date will be reviewed for potential fall 2008 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 ACOMAS application, official MCAT scores (as reported to ACOMAS), 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 ACOMAS and with CCOM. Please follow ACOMAS’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 previously. 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 clinic. 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 AAMC. The application is then processed in the same manner as any other.

Matriculation Process
To initiate the matriculation process, newly accepted students must return both their signed matriculation agreement and deposit by the date designated in their matriculation agreement. 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 agreement—the entire amount is applied toward the student’s first quarter tuition.
2. Submit official transcript(s) from all colleges attended post-high school by the date designated in his/her matriculation agreement. (Note: The information provided on the student’s AAMC 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 packet 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.

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.
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

FIRST YEAR

First Quarter (14 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC 1500 Biochemistry</td>
<td>2</td>
</tr>
<tr>
<td>BIOC 1501 Biochemistry I</td>
<td>4</td>
</tr>
<tr>
<td>ANAT 1501 Gross Anatomy I</td>
<td>6</td>
</tr>
</tbody>
</table>

Second Quarter (10 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 1511 Histology</td>
<td>4</td>
</tr>
<tr>
<td>IMED 1501 History of Medicine</td>
<td>1</td>
</tr>
<tr>
<td>FMED 1515 Clinical Medicine I</td>
<td>2</td>
</tr>
<tr>
<td>OMED 1501 Osteopathic Manipulative Medicine</td>
<td>2.5</td>
</tr>
<tr>
<td>PSYC 1501 Psychiatry I and II</td>
<td>2</td>
</tr>
<tr>
<td>CORE 1399 Health Care Issues</td>
<td>1</td>
</tr>
</tbody>
</table>

Third Quarter (10 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH 1601 Pathology I</td>
<td>5</td>
</tr>
<tr>
<td>OMED 1604 Osteopathic Man. Med. IV</td>
<td>2.5</td>
</tr>
<tr>
<td>MICR 1601 Microbiology I</td>
<td>5</td>
</tr>
<tr>
<td>PHAR 1601 Pharmacology I</td>
<td>4</td>
</tr>
<tr>
<td>FMED 1630 Practice of Medicine I</td>
<td>6</td>
</tr>
<tr>
<td>Electives *</td>
<td>23.5</td>
</tr>
</tbody>
</table>

Year Total

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.5</td>
</tr>
</tbody>
</table>

SECOND YEAR

First Quarter (14 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PATH 1602 Pathology II</td>
<td>6</td>
</tr>
<tr>
<td>PHAR 1602 Pharmacology II</td>
<td>4</td>
</tr>
<tr>
<td>PSYC 1604 Psychiatry IV</td>
<td>1.2</td>
</tr>
<tr>
<td>FMED 1631 Practice of Medicine II</td>
<td>7</td>
</tr>
<tr>
<td>FMED 1501 Patients, Physicians &amp; Society</td>
<td>1</td>
</tr>
<tr>
<td>Electives *</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Second Quarter (10 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MICR 1602 Microbiology II</td>
<td>5</td>
</tr>
<tr>
<td>OMED 1605 Osteopathic Manipulative Medicine V</td>
<td>2.5</td>
</tr>
<tr>
<td>PATH 1602 Pathology II</td>
<td>6</td>
</tr>
<tr>
<td>PHAR 1603 Pharmacology III</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 1605 Psychiatry V</td>
<td>2</td>
</tr>
<tr>
<td>FMED 1632 Practice of Medicine III</td>
<td>7</td>
</tr>
<tr>
<td>Electives *</td>
<td>26.7</td>
</tr>
</tbody>
</table>

Third Quarter (10 weeks)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMED 1606 Osteopathic Manipulative Medicine VI</td>
<td>2.5</td>
</tr>
<tr>
<td>PATH 1603 Pathology III</td>
<td>5</td>
</tr>
<tr>
<td>PHAR 1603 Pharmacology III</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 1605 Psychiatry V</td>
<td>2</td>
</tr>
<tr>
<td>FMED 1632 Practice of Medicine III</td>
<td>7</td>
</tr>
<tr>
<td>Electives *</td>
<td>18.5</td>
</tr>
</tbody>
</table>

Year Total

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>67.7</td>
</tr>
</tbody>
</table>
THIRD YEAR (12 months)
IMED 1702 Internal Medicine (8 weeks) 8
SURG 1702 Surgery (8 weeks) 8
OBGY 1702 Obstetrics/Gynecology (6 weeks) 6
PEDI 1702 Pediatrics (6 weeks) 6
PSYC 1702 Psychiatry (4 weeks) 4
FMED 1725 Family Med/Community Health 12
Elective (4 weeks) 4
Year Total 48

FOURTH YEAR ROTATIONS (12 months) (Option 1)
SURG 1802 Surgery Rotation III 4
IMED 1802 Internal Medicine Rot. III-V 8
EMED 1805 Emergency Medicine (4 weeks) 4
FMED 1801 Osteopathic Manipulative Medicine (4 weeks) 4
FMED 1743 Clinical Integration Seminar 3
FMED 1802 Family Medicine II (4 weeks) 4
CLRO 1800 Elective Rotations II-V 4 each
Year Total 47

FOURTH YEAR ROTATIONS (Option 2)
SURG 1802 Surgery Rotation III (4 weeks) 4
IMED 1802 Internal Medicine Rot. III-V 12
EMED 1805 Emergency Medicine (4 weeks) 4
FMED 1801 Osteopathic Manipulative Medicine (4 weeks) 4
FMED 1743 Clinical Integration Seminar 3
CLRO 1800 Elective Rotations II-V 4 each
Year Total 47

* Electives for 1st and 2nd years = 4
** Electives for 3rd and 4th years = 20

Total Curricular Hours
First Year 69.5
Second Year 67.7
Third Year 48
Fourth Year 47
Total 232.2

The specific list of electives offered may vary.

Advanced Gross Anatomy Dissection
Advanced Studies in OMM
Cardiovascular Pharmacology
Clinical Enzymology
Clinical Nutrition
Computers in Medicine
OMM
Medical Spanish
Microscopic Histology
Molecular Endocrinology
Obesity: Epidemiology, Clinical Assessment, Related Medical Conditions and Treatment
Osteopathic Clinical Research I
Osteopathic Clinical Research II
Osteopathic Systemic Dysfunction
Osteopathy in the Cranial Field
Percussion Hammer
Pharmacologic Aspects of Drug Abuse
Physiology Teaching Elective
Preventive Medicine in the Community I
Preventive Medicine in the Community II
Research Design
Student Research Elective
Topics in Sports Medicine
Agents of Biological & Chemical Warfare & Terrorism

Clinical Rotations
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.

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.
**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.

**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.

1501 Gross Anatomy I

In Gross Anatomy, students approach the study of the human body in a regional fashion. In this portion of the course, students study and dissect the back, shoulder, thoracic cavity, abdominal cavity, pelvis, perineum, gluteal region, and thigh.

1502 Gross Anatomy II

In this portion of the Gross Anatomy course, students continue their regional study of the body by examining the anatomy of the upper and lower extremities, neck, and head.

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.

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.

1531 Embryology

In Embryology, students trace the normal development of a fetus from conception to birth. The course uses a systems approach and explores the development of common congenital abnormalities within each system.

**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 cell, tissue, and organ function in health and diseases. 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.

1500 Human Nutrition, Metabolism and Health Care through the Life Cycle

Lecture sessions feature 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. Health care delivery problems and exercises in evidence-based medicine occupy small group activities and discussions.

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.
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.

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.

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.

1672 Clinical Enzymology
Serum enzymes and other proteins play an important role in the detection of disease and in the evaluation of the clinical course of numerous disease states. In this course we review the factors that affect enzyme levels including the extent and type of tissue damage, the rate of protein synthesis, the half-life of serum proteins, and patient variables such as age, sex, exercise and drugs. In addition to the serum proteins, the course reviews the impact that diseases may have on other aspects of the chemistry profile.

1675 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.

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.

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.

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 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
problem-solving skills. 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.

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.

1630, 1631, 1632 The Practice of Medicine
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.

1702 Family Medicine Rotation I
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.

1802 Family Medicine Rotation II
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.

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).
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.

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.

1702, 1802 Internal Medicine Rotation I and 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.

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.

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.

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.

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.
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.

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.

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.

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.

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).

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.

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.
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.

Elective: Impact of Social & Geographic Factors on Selected Models of Infectious Diseases
This interactive course addresses the impact of infectious diseases on the socioeconomic infrastructure and the effect governmental policy and public opinion can have on medical management and health care delivery. This course is offered every other year on demand.

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 health care system and on society as a whole. The course is offered every other year on demand.

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.

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 provide 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.

Section of Opthalmology
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.

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.

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.

Elective Clerkship in Orthopedic Surgery

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.

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 pathophysiologic 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.

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 series.

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.

Elective: Osteopathy in the Cranial Field
This course will be a combination of lecture and laboratory instruction in the skills lab. Didactic material will cover the Primary Respiratory Mechanism, cranial anatomy and function, flexion/external rotation-extension/internal rotation of the mechanism as well as individual bones, diagnosis by observation, diagnosis by palpation and motion testing, treatment techniques, clinical correlation, and clinical problem solving.
2 credits
Prerequisites: MS-I or MS-II students with interest in learning more skills in cranial, and basic ability to palpate CRI

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

**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, and 1503

**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

**Elective: Percussion Hammer**
This elective focuses on the use of a mechanical percussion hammer as an adjunct to facilitate release of restrictions in the musculoskeletal system. Didactic material will cover the physiologic basis for the percussion hammer, relevant anatomy and function, diagnosis by observation, palpation and motion testing, treatment techniques, clinical correlation, and problem solving.

2 credits
Prerequisite: Completion of cranial elective or advanced palpatory skills

**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

**Elective: Osteopathic Considerations in Systemic Disease**
This course will provide additional training in the clinical utilization of osteopathic manipulative techniques for treatment of systemic problems, such as EENT, pulmonary, cardiovascular, gastrointestinal, and genitourinary.

2 credits
Prerequisites: Satisfactory completion of OMED 1501, 1502

**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

**Elective: Preventive Medicine II**
This elective course is designed to expose and orient students to a variety of health care services available in most communities. It will also provide an opportunity for students to conceptualize their responsibility in providing health promotion/disease prevention in their future practice communities. Students observe and participate in a variety of health and social service agencies in order to develop an understanding of the roles and skills of non–physician health care professionals and the relationship of physicians to this group. Students will learn appropriate communication and referral skills that may be required of them as future physicians. This course involves experiences at clinical sites.

2 credits

**Elective: Medical 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.

**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.

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.

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.

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.

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.

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.

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.

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.

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.

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 considered. In addition, various social, legal, and ethical aspects of the drug abuse problem are considered.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**Section of Radiology**

601 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.

**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.

**Department of Student Services**

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.

**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.

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, otorhinolaryngology, orthopedics, urologic 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.

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.

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.

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 and Arizona hospitals and medical centers.

Residency or fellowship training is offered in the following disciplines:
- Cardiology
- Critical Care
- Dermatology
- 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 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.

Preclinical Promotions Committee Guidelines*

<table>
<thead>
<tr>
<th>Basic Science Courses</th>
<th>Usual Action</th>
<th>Academic Status</th>
<th>Repeat Courses (Timing at Discretion of PCP Committee)</th>
<th>Action Following Remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Passed</td>
<td>Promote</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1 Failure</td>
<td>Retake Course</td>
<td>Warning</td>
<td>Summer or Next Academic Year</td>
<td>Fail-ESP Pass-Promote</td>
</tr>
<tr>
<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 Remediation</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-Dismiss 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 email 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 Remediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Passed</td>
<td>Promote or Graduate</td>
<td>Academic Warning**</td>
<td>Fail - Probation, Repeat of Academic Year or Dismissal Pass - Promote or Graduate</td>
</tr>
<tr>
<td>One Failure</td>
<td>Remediate Rotation or Course</td>
<td>Academic Warning**</td>
<td>Fail - Repeat Academic Year or Dismissal Pass - Promote or Graduate</td>
</tr>
<tr>
<td>Two Failures</td>
<td>Remediate Rotation or Course</td>
<td>Academic Probation</td>
<td></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.

Review of the Entire Academic Record
When a failure occurs in a four/five/six week rotation and there is a subsequent unsatisfactory grade in one or more categories on the evaluation form in one or more rotations, the Clinical Promotions Committee may recommend repeating an entire academic year or dismissal based upon review of the students’ entire academic record.

Remediation/Retake
Remediation/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 Promotions Committee to recommend retake of the failed course. The Program Student Pre-Clinical Promotions 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. 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 "C" 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 (grade less than 70%) 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 (grade less than 70%) 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.

<table>
<thead>
<tr>
<th>Academic Warning</th>
<th>Academic Probation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non ESP Students</td>
<td>One failure in a single quarter and up to two failures in different quarters of a single academic year</td>
</tr>
<tr>
<td>ESP Students</td>
<td>One failure in a quarter</td>
</tr>
</tbody>
</table>

**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.

**COMLEX Exam Policy**

All students with an expected graduation date of 2008 and beyond 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 attempt the Level I examination requires successful completion of the Winter Quarter of the MS2 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 9 of the MS III year. COMLEX Level II exams may be taken after July 20 of the MS IV year, assuming the successful completion of COMLEX Level I and with the approval of the Dean of the osteopathic college. 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 remediation 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 of three months remediation 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 mentor, 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 and on academic probation. They are required to retake failed courses during the regular academic year and are not eligible for summer remediation courses either at CCOM or at any other medical school. The Preclinical Promotions Committee individually reviews ESP students who fail academic courses.

NOTE: Students will be assessed full tuition for any additional years.

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 for First- and Second-Year Students
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 accepted for transfer or courses with a grade of withdrawal (W) or withdrawal failing (WF), pass (P) or failed (F) that were repeated.

If a student receives a failing grade, that grade is recorded on the transcript as a numeric or “F” (pass/fail courses) 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” (pass/fail course/rotation) 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>3.750</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>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 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.</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 before the end of the quarter with passing work. 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 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.</td>
</tr>
<tr>
<td>W/F</td>
<td>—</td>
<td>0.000</td>
<td>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.</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 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.</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>

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. Effective for the entering class of 2004 with an expected graduation date of 2008, 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. For degrees where the student has not completed the academic requirements, the student must fulfill the same performance requirements of the regular academic year and tuition will be billed accordingly. Failures in one or two failures in a given academic year. Such courses are open to students in their final year of study. Summer remediation courses are only open to students with one or two failures in a given academic year.

2. 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 Dean of CCOM. 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.

3. The Dean is responsible for verifying that all of the requisite information is in the letter, and that the information is correct. The Dean forwards the letter to the Clinical Promotions Committee (CPC) for consideration. The CPC is responsible for reviewing the student’s request. Each request is considered 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.

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
Osteopathic physicians can obtain full practice rights in all 50 states as well as many foreign countries. To obtain licensure, osteopathic physicians must meet the requirements established by individual states. Typically, states grant licensure in one of two ways:

1. The state accepts a certificate issued by the National Board of Osteopathic Medical Examiners.
2. The state honors a formal, or informal, reciprocity agreement with another state(s).

Postdoctoral requirements vary among states. For example, Illinois requires at least two years of postdoctoral training for licensure.

For further information concerning licensure, please contact the American Osteopathic Association (AOA). 800/621-1773; <www.osteopathic.org>.

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.

Remedial Courses
Summer remediation courses are only open to students with one or two failures in a given academic year. 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 remediation courses offered 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 re-apply 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.

**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 (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 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 Promotions 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.

**FACULTY LIST FOR ANATOMY**

**Edgar F Allin, MD**  
University of Alberta  
Professor

**Teresa A Dombrowski, PhD**  
Loyola University  
Professor

**Rita K Getz, PhD**  
Indiana University School of Medicine  
Associate Professor

**Joanna Goral, PhD**  
Loyola University  
Assistant Professor

**Sandra E Inouye, PhD**  
Northwestern University  
Associate Professor

**George K Niiro, PhD**  
Loyola University  
Chair and Associate Professor

**Vivian E Noble**  
Johns Hopkins University  
Adjunct Instructor

**Michelle Singleton, PhD**  
Washington University  
Associate Professor

**Robert R Terreberry, PhD**  
Loyola University of Chicago  
Associate Professor

**Henry W Witte, DO**  
Midwestern University  
Chicago College of Osteopathic Medicine  
Professor Emeritus

**FACULTY LIST FOR BIOCHEMISTRY**

**Nalini Chandar, PhD**  
University of Madras, India  
Associate Professor

**Jacalyn M Green, PhD**  
University of Michigan  
Associate Professor

**Sean M Lynch, PhD**  
University of Ulster, Northern Ireland  
Associate Professor

**Kenneth E Nelson, DO**  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

**Donald J Sefcik, DO, MBA, FACOEP**  
Midwestern University  
Chicago College of Osteopathic Medicine  
Academic Professor

**Lon J Van Winkle, PhD**  
Wayne State University School of Medicine  
Professor

**Susan M Viselli, PhD**  
Pennsylvania State University,  
Associate Professor

**Robin M Zavod, PhD**  
University of Kansas  
Associate Professor

**FACULTY LIST FOR EMERGENCY MEDICINE**

**Paul J Allegretti, DO**  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

**Louis F Allocco, DO**  
Midwestern University  
College of Osteopathic Medicine  
Clinical Instructor

**James Bajo, DO**  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor
Tapan Bhatt, DO
University of Osteopathic Medicine & Health Sciences
Clinical Assistant Professor

Thomas A Boyle, DO
Philadelphia College of Osteopathic Medicine
Clinical Assistant Professor

Jeff Bzdusek, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Eric T Cook, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Kevin J Dardis, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

George S Dengler, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Andrew J Dennis, DO
University of Health Sciences, College of Osteopathic Medicine
Clinical Assistant Professor

John A DeSalvo, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

John W Graneto, DO, MEd, BS
Ohio University, College of Osteopathic Medicine
Clinical Assistant Professor

Tom Green, DO
Nova Southeastern University
Clinical Assistant Professor

Mindaugas L Griaudze, MD, PhD
University of Illinois
Clinical Assistant Professor

Danish Hague, DO
Clinical Instructor

Beth Hillman, DO
Clinical Instructor

Ed Hinton, DO
Midwestern University
Arizona College of Osteopathic Medicine
Clinical Instructor

Anwer M Hussain, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Ralph F Jackson, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Vernell Johnson, MD
University of Illinois
Clinical Instructor

Scott Kanagy, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Joseph W Knight, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Daniel R Kowalzyk, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

David Lamont, DO
Ohio University College of Osteopathic Medicine
Clinical Assistant Professor

Jim Leonard, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

George P Librandi, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Perry E Marshall, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Cathleen M McGovern, DO
Kirkville College of Osteopathic Medicine
Clinical Assistant Professor
Frank Minardi, DO  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Daniel M Netluch, MD  
Ross University School of Medicine  
Clinical Assistant Professor

Issac G Plamoottil, DO  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Stephen A Roskam, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Donald J Sefcik, DO, MBA, FACOEP  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

William P Sullivan, DO  
New York College of Osteopathic Medicine  
Clinical Assistant Professor

Jeffrey J Thompson, MD  
University of Wisconsin Medical School  
Clinical Instructor

Michael F Todd, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

James H Vasilakis, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Stevan A Vuckovic, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Lisa Waitches, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Pierre E Wakim, DO  
University of Health Sciences, College of Osteopathic Medicine  
Clinical Assistant Professor

Anthony D Wilko, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

Paula Willoughby, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Carolyln L Zonia, DO  
University of Osteopathic Medicine & Health Sciences  
Clinical Instructor

FACULTY LIST FOR FAMILY MEDICINE

James M Arons, DO  
University of Health Sciences  
Clinical Associate Professor

Kathleen M Bewley, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Anthony L Bilotta, DO  
University of Osteopathic Medicine and Health Sciences  
Clinical Assistant Professor

Kenneth M Bretts, DO  
University of Osteopathic Medicine and Health Sciences  
Clinical Assistant Professor

John C Brooks, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Kathryn R Burke, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Wendell W Carpenter, PhD  
Illinois Institute of Technology  
Clinical Associate Professor

J. Wesley Cook, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Steven A Corse, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor
Frances Daly, PhD  
Loyola University  
Assistant Professor

Gerard M Davidson, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Gene E Denning, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Manish Desai, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Calvin H Fischer, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Edward S Forman, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Shari B Glynn, DO, MPH, MBA  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Bernadette B Gniadecki, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

John W Graneto, DO, MEd, BS  
Ohio University, College of Osteopathic Medicine  
Clinical Assistant Professor

Maurice J Halpin, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Michael K Harney, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Stephen V Headley, DO  
Michigan State University College of Osteopathic Medicine  
Clinical Assistant Professor

Kristine M Healy, MPH, PA-C  
Albany Medical College & Hudson Valley Community College  
Clinical Assistant Professor

Kurt P Heinking, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Associate Professor

Donald D Higgins, Jr., DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

Dorothy K Hines, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Anwer M Hussain, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Kevin Hynes, PhD  
Purdue University  
Research Assistant Professor

Sandra E Inouye, PhD  
Northwestern University  
Academic Associate Professor

Carrie A Jaworski, MD  
Loyola University Stritch School of Medicine  
Clinical Assistant Professor

Melanie R Jessen, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Mark S Juhn, DO  
University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine  
Clinical Assistant Professor

Kenneth J Kavanaugh, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Mary E Keen, MD  
Northwestern University  
Clinical Assistant Professor
Margaret A Kirkegaard, MD, MPH
University of Minnesota
Clinical Assistant Professor

Timothy A Kisla, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Stephen G Krates, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Marla D Kushner, DO
Michigan State University, College of Osteopathic Medicine
Clinical Assistant Professor

Anthony S Leazzo, DO
Philadelphia College of Osteopathic Medicine
Clinical Assistant Professor

Margaret H Lechner, RN, MS
University of St. Francis
Assistant Professor

Eugen B Loftin, III, MD
University of Illinois, College of Medicine
Clinical Assistant Professor

Terry W Love, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Lismaida Maranto, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Christine M Marcotte, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Gary A Marcotte, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Susan E Marcotte, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Trevor J Marcotte, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Christopher J McIntire, DO
West Virginia School of Osteopathic Medicine
Clinical Assistant Professor

Florian Miranzadeh, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Richard F Multack, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Kenneth E Nelson, DO
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Louis Papaeliou, DO, MPH
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Nicholas G Parise, DO, MMS
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Valerie A Prajka, DO
University of Ostopathic Medicine & Health Sciences
Clinical Assistant Professor

Frank J Prerost, PhD
DePaul University
Clinical Professor

Dean A Raffaelli, DC, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Susan Rife, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Edward O Riley, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor
Donald J Sefcik, DO, MBA, FACOEP
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Michael D Settecase, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Greg E Sharon, MD
Rush University
Clinical Assistant Professor

Dane J Shepherd, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Daniel S Sikic, DO
Midwestern University, Chicago College of Osteopathic Medicine
Clinical Assistant Professor

David N Simcoe, DO
Lake Erie College of Osteopathic Medicine
Clinical Assistant Professor

Jitinder Rick Singh, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Carol F Spector, MS, MHPE
University of Illinois at Chicago
Clinical Instructor

Robert R Terreberry, PhD
Loyola University of Chicago
Academic Associate Professor

Anthony G Tesmond, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Rodey Wassef, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Robert M Aronson, MD
Northwestern University
Clinical Associate Professor

Shabnaz Azad, MD
University of Health Sciences, Antigua
Clinical Assistant Professor

Lekha Babu, MD
Kottayam Medical College
Clinical Assistant Professor

Amy C Bales, MD
Cornell University Medical College
Clinical Assistant Professor

Refat Baridi, MD
Damascus College of Medicine
Clinical Assistant Professor

Michael J Blend, DO, PhD
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

David B Braunstein, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

John C Brooks, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Paul J Bulow, Jr., DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Nicholas C Burriesci, MD
Stritch School of Medicine, Loyola University
Clinical Assistant Professor

George T Caleel, DO
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Noel Camba, MD
University of Illinois, College of Medicine
Clinical Assistant Professor

Tony K.Y. Chan, MD
National Defense Medical Center
Taipei, Taiwan
Clinical Assistant Professor

FACULTY LIST FOR INTERNAL MEDICINE

J. Daniel Andress, MD
University of Alabama School of Medicine
Clinical Associate Professor
May J Chow, MD  
Northwestern University Medical School  
Clinical Assistant Professor

Gregg S Coccaro, MD  
Autonomous University of Guadalajara  
Clinical Assistant Professor

Edwin J Cook, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Nestor S Cuasay, MD  
University of Santo Tomas  
Clinical Assistant Professor

Anthony W DeLorenzo, DO  
Texas College of Osteopathic Medicine University of North Texas  
Clinical Assistant Professor

Muhyaldeen Dia, MD  
Damascus University, School of Medicine  
Clinical Assistant Professor

Kevin J Dolehide, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Robert A Dolehide, MD  
Loyola Stritch School of Medicine  
Clinical Assistant Professor

Mark E Efrusy, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

Riaz Elahi, MD  
Dow Medical College & Civil Hospital  
Clinical Associate Professor

Robert M Fliegelman, DO  
Philadelphia College of Osteopathic Medicine  
Clinical Assistant Professor

Pamela A Georgeson, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Richard Green, MD  
University of Arkansas Medical Center  
Clinical Assistant Professor

Stephen I Greenstein, DO  
College of Osteopathic Medicine and Surgery  
Clinical Associate Professor

Muhammad A Hamadeh, MD  
Damascus University Medical School  
Clinical Assistant Professor

Lawrence U Haspel, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

Hadi Hedayati, MD  
Pahlavi University School of Medicine  
Clinical Professor

David Herbstman, MD  
Pritzker School of Medicine, U/C  
Clinical Associate Professor

Don L Hollandsworth, DO  
Kirksville College of Osteopathic Medicine  
Clinical Associate Professor

Lawrence L Johnson, MD  
Rush Medical College  
Clinical Assistant Professor

Sanjeev Joshi, MD  
Seth G. S. Medical College University of Bombay  
Clinical Assistant Professor

Matthew L Kamin, DO  
Midwestern University, Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Hossein Keivan, MD  
University of Tehran, School of Medicine  
Clinical Assistant Professor

Robert A Kemp, MD  
University of Chicago, Pitzker School of Medicine  
Clinical Assistant Professor

A. Arif Khalil, MD  
Royal College of Surgeons  
Clinical Assistant Professor

Abdul W Khan, MD  
Khyber Medical College, Pakistan  
Clinical Instructor

Mark T Klucka, DO  
Texas College of Osteopathic Medicine  
Clinical Assistant Professor
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>John L Kniaz, DO</td>
<td>Philadelphia College of Osteopathic Medicine</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Frank J Konicek, MD</td>
<td>Loyola University Stritch School of Medicine</td>
<td>Clinical Instructor</td>
</tr>
<tr>
<td>Nomate T Kpea, DO, MBA, MPH</td>
<td>Chicago College of Osteopathic Medicine</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Liisa L Laakso, DO</td>
<td>Midwestern University</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Robert L Litchfield, DO</td>
<td>Midwestern University</td>
<td>Clinical Professor</td>
</tr>
<tr>
<td>Doris R Lurwick, DO</td>
<td>Philadelphia College of Osteopathic Medicine</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Theresa M Matzura, DO</td>
<td>College of Osteopathic Medicine and Surgery of Des Moines</td>
<td>Clinical Professor</td>
</tr>
<tr>
<td>Gerald J Mingolelli, III, MD</td>
<td>The Albany Medical College of Union University</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Anas Nahhas, MD</td>
<td>University of Damascus, Damascus Medical School</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Anjuli S Nayak, MD</td>
<td>University of Kanpur Medical School</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Michael A Nicholas, DO</td>
<td>West Virginia School of Medicine</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Karen J Nichols, DO, MA</td>
<td>University of Health Sciences College of Osteopathic Medicine</td>
<td>Professor</td>
</tr>
<tr>
<td>Michael R Olden, DO</td>
<td>Midwestern University</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Nicholas G Parise, DO, MMS</td>
<td>Midwestern University</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Parag Patel, DO</td>
<td>University of Osteopathic Medicine &amp; Health Sciences</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Barbara Peterson</td>
<td></td>
<td>Clinical Instructor</td>
</tr>
<tr>
<td>Hareth M Raddawi, MD</td>
<td>Damascus University</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Ratnakar S Rajanahally, MD</td>
<td>Mysore University, J. J. M. Medical College</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Kenneth J Ramsey, DO</td>
<td>Midwestern University</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Srinivas P Reddy, MD</td>
<td>Northwestern Medical School</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Keith A Reich, DO</td>
<td>Kirksville College of Osteopathic Medicine</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Neal H Rosner, MD</td>
<td>Chicago Medical School</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Mitali Roy, MD</td>
<td>Shreeram Chandra Bhanj Medical College</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Brian C. Sasso, DO</td>
<td>Des Moines University</td>
<td>Clinical Assistant Professor</td>
</tr>
<tr>
<td>Michael J Shaenboen, DO</td>
<td>College of Osteopathic Medicine and Surgery</td>
<td>Clinical Professor</td>
</tr>
<tr>
<td>Mir Jafar Shah, MD</td>
<td>Khyber Medical College, Pakistan</td>
<td>Clinical Instructor</td>
</tr>
</tbody>
</table>
George E Sloan, MD  
State University of New York Health Science Center  
Clinical Assistant Professor

C. Richard Smith, Jr., DO  
Philadelphia College of Osteopathic Medicine  
Clinical Professor

Stephen J Sokalski, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

Charisa M Spoo, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Brad L Suprenant, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Robert J Tomchuck, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

Judith L Weddle, PhD  
University of Kansas  
Clinical Instructor

Glenn I Weiner, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Ramaraja Yalavarthi, MD  
Guntur Medical College  
Clinical Assistant Professor

Laima M Braune, MS  
Illinois Institute of Technology  
Instructor

Richard A Laddaga, PhD  
McGill University, Montreal  
Professor

Balbina J Plotkin, PhD  
University of Tennessee  
Professor

Kyle H Ramsey, PhD  
University of Arkansas for Medical Sciences  
Professor and Chair

Ira M Sigar, PhD  
Illinois Institute of Technology  
Instructor

Michael V Volin, PhD  
The University of Chicago  
Associate Professor

James M Woods, PhD  
Loyola University  
Associate Professor

FACULTY LIST FOR MEDICAL EDUCATION

Pui W Wong, MALIS  
Rosary College, River Forest, IL  
Medical Librarian

FACULTY LIST FOR MICROBIOLOGY

Aaron D Alexander, PhD  
George Washington University  
Professor Emeritus

John R Burdick, PhD  
Iowa State University  
Professor and Dean of Basic Sciences

FACULTY LIST FOR OB-GYN

Thomas P Boesen, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Robert M Bonaminio, DO  
Kirksville College of Osteopathic Medicine  
Clinical Assistant Professor

Kenneth Finkelstein, DO  
University of Health Sciences College of Osteopathic Medicine  
Clinical Assistant Professor

Kendal T Freeman, MD  
University of Illinois at Chicago  
Clinical Assistant Professor

Travis K Haldeman, DO  
University of Des Moines College of Osteopathic Medicine  
& Surgery  
Clinical Assistant Professor

Mari Ann Herbert, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor
Teresa A Hubka, DO
University of Osteopathic Medicine & Health Sciences
Clinical Assistant Professor

Howard K Kaufman, DO
New York College of Osteopathic Medicine
Clinical Associate Professor

Felicia G Lane, MD
MEDPREP, Southern Illinois University
Clinical Assistant Professor

R. Scott Springer, DO
College of Osteopathic Medicine and Surgery
Clinical Associate Professor

Terence P Sullivan, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Christal L West, MD
University of Illinois, College of Medicine
Clinical Assistant Professor

FACULTY LIST FOR OMM
C. Matthew Chelich, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Dennis J Dowling, DO, MA
New York College of Osteopathic Medicine
Clinical Professor

Richard A Feely, DO
Kirkville College of Osteopathic Medicine
Clinical Associate Professor

Karen D Gajda, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

Thomas Glonek, PhD
University of Illinois
Research Professor

Georgia H Griffin, DO
Midwestern University
Chicago College of Osteopathic Medicine
Assistant Professor

Ann L Habenicht, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Kurt P Heinking, DO
Midwestern University
Chicago College of Osteopathic Medicine
Associate Professor

John G Hohner, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Associate Professor

Robert E Kappler, DO
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Mary L Kelly, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Quentin P Kling, DO
Kirkville College of Osteopathic Medicine
Clinical Assistant Professor

Bernadette G Kohn, DO
Texas College of Osteopathic Medicine
Clinical Assistant Professor

Richard J Krejsa, RPh, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Robert H Manoogian, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor

James E Marotz, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Claudia L McCarty, DO
New York College of Osteopathic Medicine
Clinical Associate Professor

Mark E McKeigue, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Professor

Anette K S Mnabhi, RN, MSN, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor
Charles Mok, Jr., DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Kenneth E Nelson, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

Dean A Raffaelli, DC, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Ted Schock, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Nicette Sergueef, DO  
École de Kinesitherapie  
Clinical Assistant Professor

Frank R Serrecchia, DO, RDH  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Sandra L Sleszynski, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Aimee D Stotz, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Teresa A Wanczyk, MS, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Instructor

Philip F Dupont, MD, PhD  
Universidad Autonoma de Cuidad Juarez  
Adjunct Assistant Professor

Louis W Gierke, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Professor Emeritus

John N Kasimos, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Professor

FACULTY LIST FOR PEDIATRICS  
Cassandra M Adams, MD  
University of California  
Clinical Assistant Professor

Javed I Bangash, MD  
Kyber Medical College,  
University of Peshawar  
Clinical Assistant Professor

Bruce Bedingfield, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Pipit Chiemmongkoltip, MD  
University of Medical Sciences  
Clinical Professor

Jennifer A Daru, MD  
Dartmouth Medical School  
Clinical Assistant Professor

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

Dalila K Irons, DO  
Des Moines University Osteopathic Medical Center  
Clinical Assistant Professor

Catherine A Macyko, MD  
Uniformed Services University of Health Sciences  
Clinical Assistant Professor

Paul A Panzica, MD  
Southern Illinois University School of Medicine  
Clinical Assistant Professor

Marvin Zelkowitz, MD  
Medical College of Virginia, School of Medicine  
Clinical Associate Professor
FACULTY LIST FOR PHARMACOLOGY
Donald R Bennett, MD, PhD
University of Michigan
Adjunct Professor

George T Caleel, DO
Midwestern University
Chicago College of Osteopathic Medicine
Professor

Michael J Fay, PhD
University of Mississippi
Associate Professor

Alejandro M Mayer, PhD
University of Buenos Aires
Professor

M. Beatriz Mayer, MA
Northern Illinois University
Adjunct Instructor

Jacob D Peuler, PhD
Pennsylvania State University
Professor

Walter C Prozialeck, PhD
Thomas Jefferson University
Professor

FACULTY LIST FOR PHYSIOLOGY
Dorothy K Hines, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Albert F Kelso, PhD
Loyola University Graduate School
Professor Emeritus

Kathy J LePard, PhD
Ohio State University
Associate Professor

Paul F McCulloch, PhD
University of Saskatchewan
Associate Professor

Rafael Mejia-Alvarez, MD, PhD
Universidad Nacional Autónoma de México School of Medicine
Baylor College of Medicine
Associate Professor

Kathleen P O'Hagan, PhD
Rutgers University
Professor and Chair

Dennis J Paulson, PhD
Texas Tech University School of Medicine
Professor and Vice President and Chief Academic Officer for Medical and Dental Education

Jacquelyn M Smith, PhD
University of Michigan
Professor and Dean of College of Health Sciences

Gordon M Wahler, PhD
University of Minnesota
Professor

FACULTY LIST FOR PSYCHIATRY
Behavioral Medicine

Wendell Carpenter, PhD
Illinois Institute of Technology
Clinical Associate Professor

Karen Farrell, PsyD
Illinois School of Professor Psychology
Professor

John Galik, PhD
Northwestern University
Clinical Assistant Professor

Michelle Lee, PhD
Case Western University
Assistant Professor

Jeff Maney, PhD
Northern Illinois University
Adjunct Assistant Professor

Richard Ney, PhD
Loyola University
Professor

Pierre Nunez, PhD
Northwestern University
Adjunct Assistant Professor

Frank Prerost, PhD
DePaul University
Professor and Program Director

Sheila Rao, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Instructor
Akram Razzouk, MD  
University School of Medicine  
Clinical Professor

Mario Robbins, DO  
Michigan State University  
Clinical Instructor

Ann Sauer, PhD  
Loyola University  
Assistant Professor

Diana Semmelhack, PsyD  
Illinois School of Professor Psychology  
Assistant Professor

Alex Spadoni, MD  
Loyola University Stritch School of Medicine  
Clinical Professor

Gloria Workman, PhD  
DePaul University  
Assistant Professor

Shahnour Yaylayan, MD  
American University of Beirut, Medical Center  
Clinical Assistant Professor

Psyiatry

Melvin Gray, MD  
University of Louisville  
Professor Emeritus

Karen S Briggs, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Albert A Bucar, OD  
Illinois College of Optometry  
Clinical Assistant Professor

Richard T Caleel, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Professor

Clay A Canaday, DO  
University of Health Sciences, College of Osteopathic Medicine  
Clinical Assistant Professor

Ajay K.S. Chauhan, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

James R Davis, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

Judy L Davis, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Assistant Professor

James C Doherty, MD  
Northwestern University Medical School  
Clinical Assistant Professor

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

I. Harun Durudogan, DO  
Midwestern University  
Chicago College of Osteopathic Medicine  
Clinical Associate Professor

Jay M Dutton, MD  
The University of Iowa  
Clinical Assistant Professor

William J Ennis, DO, MBA  
New York College of Osteopathic Medicine  
Clinical Professor
Leonard S Piazza, MD
The Chicago Medical School
Clinical Assistant Professor

Keith R Pitchford, DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

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

Paul S Ray, DO
College of Osteopathic Medicine & Surgery
Clinical Professor

Jeffrey Rosen, MD
University of Illinois at Chicago
Clinical Assistant Professor

Yousef Sayeed, MD, MBA
Loyola University Stritch School of Medicine
Clinical Assistant Professor

Leonid Skorin, Jr., DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

Earle W Spohn, Jr., DO
Midwestern University
Chicago College of Osteopathic Medicine
Clinical Assistant Professor

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

Aswath Subram, MD
Bangalore Medical College
Clinical Assistant Professor

Isaac M Thapedi, MD
Howard University College of Medicine
Clinical Assistant Professor

Thomas E Turcotte, DO
Michigan State University College of Osteopathic Medicine
Clinical Associate Professor

Douglas J Van Putten, MD
Loma Linda University Medical School
Clinical Assistant Professor

Christine A Walko, OD
Illinois College of Optometry
Clinical Instructor

Tian Xia, DO
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.

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.

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.

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 2,400 applications were received in 2007.

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 2008 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., 800-622-3231; www.pcatweb.info. The exam was/is offered in June 2007, August 2007, October 2007, and January 2008. 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. Pass a criminal background check.
8. 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 2006 was 3.42 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 2006 was in the 82nd 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</td>
</tr>
<tr>
<td>Human or Vertebrate Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>8</td>
</tr>
<tr>
<td>Organic Chemistry with lab</td>
<td>8</td>
</tr>
<tr>
<td>Physics (mechanics, heat, force and motion must be included in the course)</td>
<td>3</td>
</tr>
<tr>
<td>Calculus (Integral &amp; Differential)</td>
<td>3</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Speech/Public Speaking Economics</td>
<td>3</td>
</tr>
<tr>
<td>Statistics (general statistics or biostatistics)</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Science Electives (Recommended courses include psychology, sociology and/or cultural anthropology)</td>
<td>6</td>
</tr>
</tbody>
</table>

**General Education Electives**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sciences, 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</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
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338

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.

### 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.

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 4, 2008. 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 4th date. PharmCAS will not consider an application complete and will not begin the verification process until all official transcripts are received. (Students who have taken coursework and/or earned a degree from a foreign institution must also submit an evaluation of their transcripts from an approved foreign transcript evaluation service.) Students must apply for admission via the Pharmacy College Application Service (PharmCAS) at www.PharmCAS.org. Please refer to the PharmCAS application instructions for specific details about completing the PharmCAS application, required documents, and processing time. PharmCAS applications are typically available beginning in June of the academic year preceding the year in which the applicant plans to matriculate. 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., 800-622-3231; www.pcatweb.info. The exam is typically offered four times per year. 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.PharmCAS.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.PharmCAS.org) from the application service, the Office of Admissions will send 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 3, 2008.

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 with the application fee must be received in the Office of Admissions on or before March 3, 2008. 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 creating an Interact Now account along with the supplemental application. Applicants must create and utilize their Interact Now account to track and check their application status on-line.

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.

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);
- 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 the applicant's visit. The Dean—via the Office of Admissions—notifies the recommendation is then forwarded to the Dean for final recommendation 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 the 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.

Reapplication 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 reapplication process, the student must submit an application to PharmCAS. The application is then processed in the same manner as any other application.

Transfer Admission from Another Pharmacy School
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.

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 April 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 and/or terms of withdrawal/dismissal;
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 CCP Dean’s Office will instruct the Admissions Committee to review the application and provide
its recommendation to the Dean. 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.

**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.

**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 return his/her signed matriculation agreement. The student must also do the following:
1. Submit specified deposit monies by the dates designated in his/her matriculation agreement. The entire deposit is applied toward the student’s first quarter’s tuition.

2. Submit a college transcript(s) after each completed term (during the matriculation process). Students must maintain a minimum cumulative grade point average and science grade point average of 2.5 on a 4.0 scale to matriculate.
3. Submit a completed medical file as instructed in a packet 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.

**ENTRY-LEVEL PHARM.D. CURRICULUM**

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

**First Professional Year**

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th>Course</th>
<th>Quarter Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0301</td>
<td>Human Physiology I</td>
<td>4.5</td>
</tr>
<tr>
<td>PPRA 0341</td>
<td>Introductory Practice Experience I</td>
<td>2</td>
</tr>
<tr>
<td>BIOC 0351</td>
<td>Biochemistry I</td>
<td>3.5</td>
</tr>
<tr>
<td>PSCI 0360</td>
<td>Pharmacy Calculations</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0381</td>
<td>Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td>CORE 1399</td>
<td>Health Care Issues</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>0-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17-18</td>
</tr>
<tr>
<td>Quarter</td>
<td>Course</td>
<td>Quarter Hours</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICR 0300</td>
<td>Immuno/Bioligics</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0302</td>
<td>Human Physiology II</td>
<td>4.5</td>
</tr>
<tr>
<td>BIOC 0352</td>
<td>Biochemistry II</td>
<td>4.5</td>
</tr>
<tr>
<td>PSCI 0362</td>
<td>Dosage Forum Design</td>
<td>3</td>
</tr>
<tr>
<td>PSCI 0392</td>
<td>Dosage Form Lab</td>
<td>1</td>
</tr>
<tr>
<td>PPRA 0342</td>
<td>Introductory Practice Experience II Lecture</td>
<td></td>
</tr>
<tr>
<td>PPRA 0352</td>
<td>Introductory Practice Experience II Rotation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Electives, if not in IPE II Rotation</td>
<td>0-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16-19</td>
</tr>
<tr>
<td><strong>Spring Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MICR 0310</td>
<td>Infectious Diseases and Their Etiologic Agents</td>
<td>4</td>
</tr>
<tr>
<td>PPRA 0352</td>
<td>Introductory Practice Experience II</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0353</td>
<td>Introduction to Drug Structure Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 0363</td>
<td>Biopharmaceutics</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0343</td>
<td>Introduction to Drug Literature</td>
<td>2</td>
</tr>
<tr>
<td>PPRA 0383</td>
<td>Pharmacotherapeutics I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electives, if not in IPE II Rotation</td>
<td>0-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16-18</td>
</tr>
<tr>
<td><strong>Second Professional Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fall Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 0451</td>
<td>Medicinal Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 0461</td>
<td>Pharmacology I</td>
<td>4</td>
</tr>
<tr>
<td>PPRA 0441</td>
<td>Applied Pharmaceutical Care I with Lab</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0491</td>
<td>Pharmacotherapeutics II</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>0-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16-18</td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 0452</td>
<td>Medicinal Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>PHAR 0462</td>
<td>Pharmacology II</td>
<td>4</td>
</tr>
<tr>
<td>PPRA 0442</td>
<td>Applied Pharmaceutical Care II with Lab</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0492</td>
<td>Pharmacotherapeutics III</td>
<td>4</td>
</tr>
<tr>
<td>PPRA 0432</td>
<td>Research Methods and Drug Literature</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Evaluation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td><strong>Spring Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 0453</td>
<td>Medicinal Chemistry III</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 0463</td>
<td>Pharmacology III</td>
<td>2</td>
</tr>
<tr>
<td>PPRA 0493</td>
<td>Pharmacotherapeutics IV</td>
<td>5</td>
</tr>
<tr>
<td>PPRA 0423</td>
<td>Health Care Communications</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0433</td>
<td>Introductory Practice Experience III Lecture</td>
<td>1</td>
</tr>
<tr>
<td>PPRA 0443</td>
<td>Introductory Practice Experience III Rotation (for AGO students only) Electives</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13-18</td>
</tr>
<tr>
<td><strong>Third Professional Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Quarter (Only for AGO students entering Fall 2006 or previously)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0686-0687</td>
<td>Professional Practice Experience</td>
<td>18</td>
</tr>
<tr>
<td><strong>Fall Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0571</td>
<td>Quality Assurance and Effective Pharmacy Practice</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0581</td>
<td>Pharmacotherapeutics V</td>
<td>5</td>
</tr>
<tr>
<td>PPRA 0551</td>
<td>Pharmacy Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0443</td>
<td>Introductory Practice Experience III Rotation (for 1/2 of non-AGO students only) Electives</td>
<td>1-6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12-18</td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0572</td>
<td>Pharmacy Law/Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0592</td>
<td>Clinical Pharmacokinetics</td>
<td>3</td>
</tr>
<tr>
<td>PPRA 0552</td>
<td>Pharmacy Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>2-8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13-18</td>
</tr>
<tr>
<td><strong>Spring Quarter</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0685-0690</td>
<td>Professional Practice Experience</td>
<td>18</td>
</tr>
<tr>
<td>PPRA 0692</td>
<td>Pharm.D. Seminar</td>
<td>0</td>
</tr>
<tr>
<td><strong>Fourth Professional Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Quarter (Only for AGO students entering Fall 2006 or previously)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0685, 0688-0690</td>
<td>Professional Practice Experience</td>
<td>18</td>
</tr>
<tr>
<td>PPRA 0692</td>
<td>Pharm.D. Seminar</td>
<td>0</td>
</tr>
<tr>
<td><strong>Fall and Winter Quarters</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPRA 0685, 0688-0690</td>
<td>Professional Practice Experience</td>
<td>36</td>
</tr>
<tr>
<td>PPRA 0692</td>
<td>Pharm.D. Seminar</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>38</td>
</tr>
</tbody>
</table>

For students matriculating in Fall 2007, 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.
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**
- BIOC 0645 Principles and Practices of Enteral and Parenteral Nutrition, 1 qhr
- BIOC 0647 Nutrition in Preventive Medicine, 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 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 Introduction to American Sign Language, 1 qhr
- PPRA 0533 Introduction to Nuclear Pharmacy, 1 qhr
- PPRA 0534 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 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
- PSCI 0665 Vitamins, Minerals, and Nutritional Support, 2 qhrs
- PSCI 0669 Development of Newly Approved Drug Therapies, 1 qhr

Professional Practice Experiences in the Entry-Level Degree Programs
All students must successfully complete six credit hours of introductory practical experience during the first 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 practical experiences during their third and fourth professional years including rotations in: advanced community pharmacy, advanced institutional pharmacy, three advanced clerkship rotations (chronic care, acute care, and acute/chronic care) and one elective. Advanced clerkships build on the foundation of clerkship experiences 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. All students are responsible for providing their own transportation to rotation sites.

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
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 nine 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 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.

Chicago Pharmacists Association Scholarships
Monetary awards are presented to two students who are active members of SNAPhA.

CVS Scholarship
A scholarship is awarded each year to a student who is in good academic standing and has 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 Nontraditional Pharm.D. Program Scholarship
A monetary award is presented to a second-year Nontraditional Pharm.D. Program student who practices in a community setting and who has demonstrated academic excellence.

Doc’s Drugs Scholarship
Monetary awards are given annually to a PS-1, PS-2, and PS-3 student 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.

GlaxoSmithKline 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.

IMIRx Incorporated Scholarship
This award is given to a PS-3 or PS-4 student who demonstrates exceptional communication skills, academic abilities, an interest in consulting pharmacy and entrepreneurship.

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.

MRxl 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.

National Pharmacists Association Scholarship
This scholarship is presented to a student who demonstrates leadership within CCP or the community and meets the highest standards of quality, integrity, ethics, and excellence of pharmacy.

Osco Drug-Super Valu Bright Star Scholarships
A monetary award is presented to four students based on their outstanding academic performance, ethnicity, and financial need.

Osco Drug-Super Valu 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 two students who have a desire to pursue a career in community pharmacy and have demonstrated financial need.
SuperValu (CUB Pharmacy) Scholarship
A monetary award is presented to a graduating student with outstanding academic performance and a preference for retail pharmacy practice.

Target Pharmacy Scholarship
A scholarship is given to a PS-3 or PS-4 student in good academic standing with demonstrated leadership ability, a commitment to community service and an interest in community pharmacy practice.

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 Scholarship
A scholarship is presented to two students who have an interest in community pharmacy practice or pharmacy administration. These students must also demonstrate strong leadership and communication skills.

Wal-Mart Pharmacy Scholarship Award
This scholarship is given to a PS-2 or PS-3 student with high scholastic standing, strong leadership qualities, and an interest in entering community pharmacy practice.

Wisconsin Scholars Award
This scholarship is awarded to a PS-1, PS-2 or PS-3 student who is a permanent resident of Wisconsin, has maintained a cumulative CCP grade point average of at least a 3.00, has demonstrated leadership in MWU/CCP student organizations and/or local, state and national professional associations, has demonstrated a commitment to community service, and who has expressed an interest to practice in the state of Wisconsin upon graduation.

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, clinical pathophysiology, pharmacotherapeutics, clinical pharmacokinetics, and a professional practice laboratory that emphasizes communication skills, prescription processing, and pharmaceutical care. Supervised 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 for the PS-I Through PS-III Years

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 1
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 principles of biochemistry and to the practice of pharmacy. Workshop topics may include antimetabolite 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

**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 professions will be introduced to the students (osteopathic physicians, physician assistants, pharmacists, physical therapists, occupational therapists, and clinical psychologists) using practitioner-patient demonstrations utilizing a surrogate patient.

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-1 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 advanced experiential rotations.

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 advanced experiential rotations.

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 advanced experiential rotations.

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. In addition, 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: PPRA 0442 Applied Pharmaceutical Care II, and PPRA 0383, 0491, and 0492 Pharmacotherapeutics I-III

**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 experiential rotations.

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 experiential rotations.
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: PPRA 0493 Pharmacotherapeutics IV

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 0551 Pharmacy Operations 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 the variety of management theories, techniques, and tools that are used by pharmacists to provide pharmaceutical care in an efficient manner.
3 credits
Prerequisite: PS-III standing

PPRA 0552 Pharmacy Personnel Management
Much of the course focuses on managing people within organizations, what is traditionally viewed as human resources or personnel management. It focuses on ways to maximize human performance. However, management is a process that can also be applied to personal, interpersonal (with patients, peers, and other health professionals), and team/organizational lives. Since much of the practice of pharmacy involves working with people (e.g., patients, technicians, and other health care professionals), one goal for the course is for students to learn how to work with others.
3 credits
Prerequisite: PS-III 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 also addressed. The course describes the links among the infrastructure that pharmacists need, the functions that pharmacists perform, and drug therapy outcomes of all types. All topics discussed are structured for practical use in pharmacy settings. Also, 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. A program of lectures and workshops 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; effects of renal replacement therapy; interpretation of serum drug concentrations; and drug assay validity characteristics. Patient cases and problem sets will be distributed weekly and used to give practice in the application of principles. Workshops with quizzes will be given to assess the understanding of principles; examinations will cover both principles and applications. 
3 credits
Prerequisite: PS-III standing

PPRA 0685 Pharm.D. Elective Rotation
Pharmacy students may select an additional advanced clerkship or choose from a selected list of non-patient care electives. 
9 credits

PPRA 0686 Advanced Community Rotation
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 Rotation is patient care. Students will also learn pharmacy based immunization delivery. 
9 credits

PPRA 0687 Advanced Institutional Rotation
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 Advanced Clerkship Acute Care
Advanced clerkship rotations 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 Advanced Clerkship Chronic Care
Advanced clerkship rotations 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 Advanced Clerkship Clinical (Acute or Chronic Care)
Advanced clerkship rotations 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 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

**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

**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 be 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: Microbiology 0310 Infectious Diseases and Their Etiologic Agents

**PHAR 0415 Medical Spanish**
The purpose of this elective is to provide 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 as well as understanding cultural attitudes, which may impact on the required medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations by participating 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 or PSCI 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 or 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

**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-III standing

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 is utilized.
1 credit
Prerequisite: PS-II Standing, PPRA 0442 Pharmaceutical Applied 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 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

PPRA 0534 Introduction 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 0573 Oncology 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

PPRA 0580 Medication Management in Primary and Secondary Schools
This course describes the process of medication management in schools including transfer, storage, administration, use, and disposal. In so doing, 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. The course 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. The course also shows that pharmacy has been involved very little in this problem in the past. Finally, the course specifies ways that individual pharmacists and pharmacies as well as the profession as a whole, can get involved in medication management in schools and improve the situation.
2 credits

PPRA 0583 Tobacco Cessation
This course will enable students to gain the knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients who use tobacco. Topics of emphasis include epidemiology of tobacco use, principles of addiction, methods of assisting patients with quitting, nicotine pharmacology and available tobacco cessation products.
1 credit
Prerequisite: PPRA 0383 Pharmacotherapeutics I

PPRA 0584 Spirituality and Health
This course will enable students to enhance their patient care skills by examining the relationship between spirituality and health. Students will also gain the knowledge essential to understanding the role of spirituality and religion in health care. Students will further 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, understanding the role of spirituality in health care, review of different spiritual perspectives, the role of the hospital chaplain, and the 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 0585 Topics 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 586 Pharmacogenomics 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
Prerequisite: PS-III standing

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 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 665 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

PSCI 0669 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 Clinical 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 Rotation 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 Rotation 9 qh
PPRA 0784 Clinical Rotation 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 rotations 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.

Classes are offered via videotape. Students must attend two live class meetings during their program. The first meeting is on a Saturday in September during their first year of attendance. The second meeting is on a Saturday in November during the second year of attendance.

Students may begin their Longitudinal Chronic Care Rotation in the spring quarter of their first year. This part-time rotation is completed over several quarters. The Acute Care Rotation, Clinical Rotation, and the traditional Chronic Care Rotation (should students choose this option rather than the Longitudinal Chronic Care Rotation) are to be completed after successful completion of the didactic courses.

Each rotation is equivalent to a 240-hour experience. The College anticipates that some rotation 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 rotations 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 rotation 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 rotation. 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 rotation 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 Clerkship and Acute Care Clerkship</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 Clerkship 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
Prerequisite: PPRA 0710 Concepts in Current Pharmacy Practice

**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
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 Clerkship
This rotation is longitudinal beginning during the spring term of the first year. The longitudinal nature of the rotation 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 rotation should be completed before beginning the Acute Care Rotation and the Clinical Rotation. Advanced therapeutics are taught concurrently with this rotation, which will allow for practical and immediate application. The site is identified early and students will use the same site throughout the rotation. 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.
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 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, he/she 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, he/she will be dismissed. To be returned to good academic standing, a 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 clerkships, a student must earn an annual didactic grade point average (GPA) of at least 2.00 (which is derived from all required and elective courses taken during fall and winter quarters of the PS-III year only), 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 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
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 previously 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 experiential rotations.
2. A minimum GPA of 2.00 for all didactic coursework is a prerequisite for the first full-time experiential rotation.
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 Clerkship (LCC) in the spring quarter of their first year. This part-time rotation is completed over several quarters. The Acute Care and Clinical Clerkship (and the traditional Chronic Care Rotation, should students choose this option rather than the Longitudinal Ambulatory Care Rotation) 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 Longitudinal Chronic Care Rotation, 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 experiential rotations 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 experiential rotations.

**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.

**Experiential Rotation Failures in the Traditional and Nontraditional Pharm.D. Programs**

When a student fails an experiential rotation he/she must petition the Student Promotion and Graduation Committee within 30 calendar days after the last day of the failed rotation to retake the same type of rotation. After consideration of the circumstances of the failure, 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 rotation.

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 the rotation on the retake, he/she is dismissed from studies at CCP. Students are allowed only one failed rotation and one retake of the failed rotation 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 a 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. An official withdrawal form is obtained from the Registrar or Dean’s Office. The student must complete the form with the appropriate clearance signatures and return it to the Registrar’s Office. 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 requiring mandatory attendance, a student must notify one of the following: CCP Dean’s Office, CCP department head, or course director. To be excused from a rotation, 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 clerkship 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.

Automatic advanced standing for Introductory Practice Experience I will be granted to students who have successfully completed the CCP Career Explorers Program.

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 experiential rotation 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 discourages employment that will conflict with a student’s ability to perform while courses/rotations are in session and will not take outside employment or activities into consideration when scheduling classes, examinations, reviews, field trips, or individual course/rotation functions. Class attendance is mandatory for all students during experiential rotations. Refer to student rotations 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 didactic GPA of 2.00. To achieve the status of a third-year student in the professional program (PS-III), students must have successfully completed all requisite second-year courses and earned an annual didactic 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 didactic and rotation 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 of experiential education (rotation, clerkship) is equivalent to 1.5 credits. Exam time could be considered part of contact time such that instructor would have the option to replace contact time with assessments.

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 rotation. 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 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 full time clerkships. The following letter grades are not used for didactic courses: C-, D+, or D-.

Courses are recorded in terms of quarter hour(s) of credit. Multiplication of the credits for a course by the numeric value for the grade awarded gives the number of quality points earned for a course. Dividing the total number of quality points earned in courses by the total number of credits in those courses gives the grade point average.

Grades reported as W, WF, and P are recorded on a student’s permanent record but are not used in the calculation of a student’s grade point average. Similarly, a grade of I 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 rotation requirements must be approved first by the course director responsible for the course or rotation.

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: repetition 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.

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.

<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</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</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</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Didactic Course</th>
<th>Graduation Honor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Point Average</td>
<td></td>
</tr>
<tr>
<td>≥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>

For Students who Matriculated in Fall 2007 or Thereafter

<table>
<thead>
<tr>
<th>Didactic Course</th>
<th>Graduation Honor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Point Average</td>
<td></td>
</tr>
<tr>
<td>≥3.90</td>
<td>Summa cum laude</td>
</tr>
<tr>
<td>3.75–3.89</td>
<td>Magna cum laude</td>
</tr>
<tr>
<td>3.50–3.74</td>
<td>Cum laude</td>
</tr>
</tbody>
</table>

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 core basic science and general education coursework, as stipulated, for full admission to the program. For students who matriculate in fall 2008 or after, successfully completed a minimum of 90 quarter hours of credit of prerequisite core basic science and general education 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 rotation grade point average for rotations and Pharm. D. Seminar of 2.00 or greater.

5. Repeated, upon approval, and earned a passing grade for any required course(s) 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 experiential rotations 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 experiential rotations of 2.00 or greater and no rotation 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.

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 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. 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. 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.

Last Day to Add/Drop Module Classes or Rotations
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.

Rotations 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 or WF.

Leave of Absence from Rotations 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 rotations 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 each year of the program.

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 Rotation Sites
It is the student’s responsibility to assure that he/she has appropriate arrangements for transportation to/from rotation sites throughout the curriculum. Transportation is not provided by the College.

FACULTY LIST FOR PHARMACEUTICAL SCIENCES
Shridhar V Andurkar, PhD
Auburn University
Chair, Associate Professor

Shaifali Bhalla, PhD
University of Illinois at Chicago
Assistant Professor

Robert L Chapman, PhD
Ohio State University
Associate Professor

Archana Desai, PhD
Purdue University
Associate Professor

Anil Gulati, MD, PhD
Erasmus University Rotterdam
Associate Dean for Research and Professor
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
<th>City/State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eytan Klausner, PhD</td>
<td>The Hebrew University of Jerusalem</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Elizabeth M Langan, MD</td>
<td>Case Western Reserve University School of Medicine</td>
<td>Adjunct Instructor</td>
<td></td>
</tr>
<tr>
<td>Karen M Nagel, PhD</td>
<td>Purdue University School of Pharmacy</td>
<td>Associate Professor</td>
<td></td>
</tr>
<tr>
<td>Elizabeth M Seybold, PharmD</td>
<td>Midwestern University Chicago College of Pharmacy</td>
<td>Adjunct Instructor</td>
<td></td>
</tr>
<tr>
<td>Robin M Zavod, PhD</td>
<td>University of Kansas</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Anita M Allemand, PharmD</td>
<td>Midwestern University Chicago College of Pharmacy</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Sheila M Allen, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Seth P Brownlee, PharmD</td>
<td>Ohio Northern University, College of Pharmacy</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Jill S Burkiewicz, PharmD, BCPS</td>
<td>University of Michigan</td>
<td>Associate Professor</td>
<td></td>
</tr>
<tr>
<td>Susan Cornell, PharmD, CDE</td>
<td>Midwestern University Chicago College of Pharmacy</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Christopher W Crank, PharmD</td>
<td>University of Iowa College of Pharmacy</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Brian T Cryder, PharmD</td>
<td>Ohio Northern University</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Wafa Y Dahdal, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Vice Chair and Professor</td>
<td></td>
</tr>
<tr>
<td>Kendra Damer, PharmD</td>
<td>Butler University</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Lea E Dela Pena, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Debbie A Drajer, PharmD</td>
<td>Butler University, College of Pharmacy &amp; Health Sciences</td>
<td>Adjunct Clinical Instructor</td>
<td></td>
</tr>
<tr>
<td>Jennifer D’Souza, PharmD</td>
<td>Midwestern University Chicago College of Pharmacy</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Rochelle Farb, PharmD</td>
<td>University of Florida</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Margaret A Felczak, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Kathy E Fit, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Nancy Fjortoft, PhD</td>
<td>University of Illinois at Chicago, College of Education</td>
<td>Dean and Professor</td>
<td></td>
</tr>
<tr>
<td>Julie A Fusco, PharmD</td>
<td>University of Illinois at Chicago</td>
<td>Associate Professor</td>
<td></td>
</tr>
<tr>
<td>Tammi J Garzanelli, RPh</td>
<td>University of Iowa College of Pharmacy</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Jacob P Gettig, PharmD, BCPS</td>
<td>Purdue University School of Pharmacy</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Scott E Glosner, PharmD</td>
<td>University of Texas</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Sarah E Grady, PharmD, BCPS</td>
<td>University of Illinois at Chicago</td>
<td>Associate Professor</td>
<td></td>
</tr>
<tr>
<td>Brooke L Griffin, PharmD</td>
<td>Massachusetts College of Pharmacy &amp; Health Sciences</td>
<td>Assistant Professor</td>
<td></td>
</tr>
<tr>
<td>Lisa M Handley, PharmD</td>
<td>Drake University</td>
<td>Adjunct Assistant Professor</td>
<td></td>
</tr>
</tbody>
</table>
Timothy J Todd, PharmD  
Midwestern University Chicago College of Pharmacy  
Associate Professor

Kathleen M Vest, PharmD  
Albany College of Pharmacy  
Assistant Professor

Julie A Weberski, PharmD  
University of Illinois at Chicago  
Associate Professor

Susan Winkler, PharmD, BCPS  
University of Illinois at Chicago  
Assistant Dean and Professor

Dawn G Zarembski, PharmD  
University of Illinois  
Adjunct Associate Professor

102
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 the Student Handbook. 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 achieved 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.

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, based on the following table.

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 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 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.

<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 ≥ 2.75 (graduate programs) or ≥ 2.25 (undergrad. programs) or ≥ 2.00 (AZPod only)</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; 2.75 (graduate programs) or &lt; 2.25 (undergrad. programs) or &lt; 2.00 (AZPod only)</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>
</tbody>
</table>
| Satisfactory professional behavior; one course failure**; and/or two quarters of cumulative GPA < 2.75 (graduate programs) or < 2.25 (undergrad. programs) or < 2.00 (AZPod only) | Academic probation for the subsequent quarter and one of the following:  
  a) Remediation at a later date. Remediation or retake of any course is the prerogative of the course director/department/program  
  b) Academic suspension for up to one year until course is remediated or 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. | “F” grade is listed on transcript and is counted toward GPA calculation. Following successful remediation or 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. |
| Satisfactory professional behavior; two course failures**; and/or three quarters of cumulative GPA < 2.75 (graduate programs) or < 2.25 (undergrad. programs) or < 2.00 (AZPod only) | a) Academic suspension*** and probation, or  
  b) Administrative probation and academic probation, or  
  c) Extended course of study and academic probation, or  
  d) Dismissal | Academic suspension, administrative probation, or dismissal are noted on transcript. |
| Unsatisfactory professional behavior regardless of academic performance | Disciplinary probation, academic dismissal, and/or suspension | 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. Academic dismissal and/or suspension are noted on transcript. |

* 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.

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.

Academic 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 re-apply 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.

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 to the decision to the CHS Student Promotion and Graduation Committee. 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 has been completed. 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 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 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, 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 for the next academic quarter 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 this status 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 (see below), 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 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. 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 (eg., Registrar, Office of Financial Aid, 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 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.

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 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 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.

Grade Point Average
The grade point average is a weighted average computed using the number of credits assigned to each course and the quality points corresponding to the letter grade earned in each course. It is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course. The student’s
cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated beginning at the end of the first quarter of enrollment, and does not include any grades or credits for courses audited or accepted for transfer or courses with a grade of withdrawal (W) or withdrawal failing (WF), pass (P) or failed (F) that were repeated.

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, Bachelor of Biomedical Sciences, Master of Sciences in Biomedical Sciences, 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 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 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 the 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 not required to have immunizations or titers.

National Boards for Doctor of Podiatric Medicine
Each student in the Doctor of Podiatric Medicine Program 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 and Part II is taken during the fourth year. The specific dates are listed in the academic calendar. To be excused from taking this examination at the prescribed time, the student must have prior approval of the Director of 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
**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>3.750</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 calculations and is not counted in credit hour accruals for graduation.</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 “C” level (“D” for Bachelor of Biomedical Science students). 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. 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.</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 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.</td>
</tr>
<tr>
<td>AP</td>
<td>—</td>
<td>0.000</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>

110
Re-examination
Re-examination occurs when a student fails a course but qualifies for a re-examination. It is the prerogative of the program/department to offer or not offer a re-examination for course failure and to determine the eligibility criteria for a re-examination. The policy of the department for that course should be stated in the course syllabus.

If the student qualifies for a re-examination, a grade of "I" may be submitted to the Registrar. The re-examination(s) must be complete 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 a grade of "C" (or the minimal passing grade for the 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 re-examination offered by the department.
2. Course failure followed by failure of the re-examination.
3. Course failure and failure to meet eligibility criteria for re-examination.

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 Program Student Academic Review Committee to recommend retake of the failed course. The Program Student Academic Review 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. The new grade will be factored into the overall GPA. A student enrolled in a repeated course will be charged appropriate tuition.

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. A student enrolled in a repeated course will be charged the appropriate tuition.

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 on 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 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.

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 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 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.
COLLEGE OF HEALTH SCIENCES

PHYSICIAN ASSISTANT PROGRAM

DEFINITION OF A PHYSICIAN ASSISTANT
(Approved by the American Academy of Physician Assistants’ House of Delegates, 1995.)
“Physician assistants are health professionals licensed to practice medicine with physician supervision. Physician assistants are qualified upon graduation from an accredited physician assistant educational program and/or certification by the National Commission on Certification of Physician Assistants. Within the physician/PA relationship, physician assistants exercise autonomy in medical decision-making and provide a broad range of diagnostic and therapeutic services. The clinical role of physician assistants includes primary and specialty care in medical and surgical practice settings in rural and urban areas. Physician assistant practice is centered on patient care and may include educational, research, and administrative activities.”

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.
• To stimulate involvement in the professional community by assuming leadership roles and to uphold the mission of the College of Health Sciences and Midwestern University.

PROGRAM DESCRIPTION
The PA Program offers professional education at the master’s level for students who aspire to become physician assistants. The master’s track 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 professional curriculum leading to the master’s degree is a full-time professional program that offers students the opportunity to earn the respective 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 delivered at affiliated clinical sites and facilities. These sites are geographically and demographically diverse, reflecting the broad scope of practice opportunities that exist for PAs in the health care delivery system of this country. Sites include ambulatory practice settings, small and large office-based group practices, community and migrant health centers, in-patient settings involving large and small hospitals as well as federal and state facilities. These sites are in urban, suburban, and rural communities as well as community and migrant health centers located throughout Illinois including federally designated Health Professional Shortage Areas and Medically Underserved Areas. In addition, the program has established formal clinical site affiliations with clinical facilities and practitioners in a number of other states. As part of the clinical education phase of the program, students enrolled in the PA Program will likely be assigned to clinical rotations that reflect patient diversity.

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. It is currently accredited by its successor agency, the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA). This accreditation status enables graduating students to take the national certifying examination administered by the National Commission on Certification of Physician Assistants.
(NCCPA). The Midwestern University PA Program is a member of the Physician Assistant Education Association (PAEA), the national organization representing PA educational programs.

**DEGREE: MASTER OF MEDICAL SCIENCE (M.M.S.) IN PHYSICIAN ASSISTANT STUDIES**
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 as an extender to the practicing physician in a competent and reliable manner. The specific objectives of this program are as follows:

- 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;
- To provide an ample experiential foundation that prepares students to perform the tasks, functions, and duties of a physician assistant in diverse practice settings;
- To 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;
- To 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;
- To 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;
- To earn the Master of Medical Science in Physician Assistant Studies, students must complete an approved course of study leading to this degree. This master’s degree program is designed to broaden the student’s scientific knowledge and clinical skills and create a foundation for lifelong 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; more than 700 applications are typically received per year. The application deadline is November 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 on-campus during the months of October through January. Candidates who submit a completed application will be notified of their admission status by the end of March.

**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 preferably by the November 1st deadline. The test must have been taken no earlier than January 1, 2003. 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, call 800/GRE-CALL, 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 (a C- will NOT be accepted for any prerequisite course) before matriculation. Life experience credits do not count toward fulfillment of the prerequisite.
4. All applicants should satisfactorily complete all prerequisite course work by December 31 of the year before they plan to begin class.
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>
</tr>
</thead>
<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.*
All prerequisites MUST be completed by the time the student begins the program, if accepted. 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. No grades of C- or below will be accepted to fulfill any prerequisite requirement. 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.

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 completed in non-remedial English Composition.

Application Process
1. CASPA Application
   Applicants are required to submit an application with all required materials to CASPA at www.caspaonline.org by November 1, 2007. 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 your scores is 1769. Only test scores earned during the previous five years (no earlier than January 2003) and sent directly from the Educational Testing Service (ETS) will be accepted.

4. Completed Applications
   Upon receipt of your CASPA 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 CASPA application. The letter will also include instructions on checking your application status online using your Interact Now account. Please remember that 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 applicant 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 on-campus to attend a mandatory Applicant Assessment Day. The Applicant Assessment Days are typically scheduled during the months of October, November, December, and January. The following criteria are used to select the most qualified candidates for Applicant Assessment Day invitations: overall GPA, science GPA, GRE general test scores, letters of recommendation, healthcare experience, knowledge of the profession, volunteer/community service work, and motivation for wanting to become a PA. 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 admissions committee and a group interview session facilitated by a faculty member(s).
Once an applicant attends one of the Applicant Assessment Days, 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 should receive notification regarding their status in writing by the end of March.

Please Note: Applicants who have not completed all required prerequisite coursework by the date of their Applicant Assessment Day are required to bring documentation that any outstanding coursework is in progress or planned (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 of the College. The student must return 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 agreement—the entire deposit is applied toward the student’s first-quarter tuition.
- Arrange to have all final college transcripts submitted to the Office of Admissions no later than the date designated in the matriculation agreement. 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.
- Successfully complete all outstanding prerequisites with the grade of a “C,” “C+,” or higher. A “C-” will NOT be accepted for any prerequisite course.
- Complete a medical file as requested by the Office of Student Services.
- 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.
- ILLINOIS RESIDENTS: Submit proof of Illinois residency if requested by MWU.
- PERMANENT RESIDENTS: Submit a copy of permanent resident alien card.
- 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 requirements stipulated by the Admissions Committee of the Program has been completed.
• Submit additional documents as required by the Office of Admissions.
• Complete physical exam and submit form.
• Sign authorization allowing a criminal background check.
• Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
• Sign Credit Policy Statement
• Provide proof of completed required immunizations.
• Satisfy 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 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 degree with the master’s degree, students must:

- Follow an approved course of study leading to the completion of all master’s requirements;
- Satisfactorily complete all professional courses with a minimum cumulative grade point average of 2.75; no course or rotation grade below a C;
- Satisfactorily complete Senior Summative examinations;
- Satisfactorily complete the required credit hours in the overall course of study;
- 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;
- Be recommended for conferral of the master’s degree by the University Faculty Senate;
- Settle all financial accounts with the University; and
- Submit a properly completed and signed graduation clearance form to 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: National Commission on Certification of Physician Assistants, Inc., 12000 Findley Road, Suite 200, Duluth, GA 30097-1409 [678-417-8100].www.nccpa.net

**Curriculum**

**Master of Medical Science (M.M.S.)**

**First Professional Year**

<table>
<thead>
<tr>
<th>Total Quarter Credit Hours Required:</th>
<th>79</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Quarter</strong></td>
<td></td>
</tr>
<tr>
<td>BIOC 0452 Clinical Biochemistry and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PASS 0453 Clinical Medicine I</td>
<td>4</td>
</tr>
<tr>
<td>PASS 0454 Professional Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>ANAT 0450 Human Anatomy/Embryology with Gross Anatomy Lab</td>
<td>7</td>
</tr>
<tr>
<td>BIOC 0451 Human Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>PASS 0540 Biopsychosocial Issues</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Fall Quarter</strong></td>
<td></td>
</tr>
<tr>
<td>PASS 0463 Clinical Medicine II</td>
<td>4</td>
</tr>
<tr>
<td>PHAR 0484 Pharmacology I</td>
<td>3</td>
</tr>
<tr>
<td>ANAT 0465 Human Neurosciences</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 0460 Human Physiology I</td>
<td>3.5</td>
</tr>
<tr>
<td>PASS 0464 Physical Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>PASS 0601 Research Design Issues</td>
<td>3</td>
</tr>
<tr>
<td>CORE 1399 Health Care Issues</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>20.5</td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td></td>
</tr>
<tr>
<td>PASS 0602 Principles of Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>PASS 0473 Clinical Medicine III</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 0470 Human Physiology II</td>
<td>3.5</td>
</tr>
<tr>
<td>MICR 0476 Immunology</td>
<td>2</td>
</tr>
<tr>
<td>PHAR 0485 Pharmacology II</td>
<td>3</td>
</tr>
<tr>
<td>PASS 0472 Psychiatric Principles</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>19.5</td>
</tr>
</tbody>
</table>
### Spring Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS 0483</td>
<td>6</td>
<td>Clinical Medicine IV</td>
</tr>
<tr>
<td>BIOC 0481</td>
<td>1</td>
<td>Human Genetics</td>
</tr>
<tr>
<td>PASS 0603</td>
<td>3</td>
<td>Medical Writing</td>
</tr>
<tr>
<td>MICR 0482</td>
<td>4</td>
<td>Infectious Diseases</td>
</tr>
<tr>
<td>PHAR 0486</td>
<td>3</td>
<td>Pharmacology III</td>
</tr>
<tr>
<td>PASS 0475</td>
<td>2</td>
<td>Professional Seminar II</td>
</tr>
</tbody>
</table>

**Total** 19.0

### Second Professional Year

**Total Quarter Credit Hours Required** 58

### Summer Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS 0770</td>
<td>3</td>
<td>Advanced Clinical Medicine I</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>Required Clinical Rotations</td>
</tr>
</tbody>
</table>

### Fall Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS 0651</td>
<td>1</td>
<td>Medical Update I</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>Required Clinical Rotations</td>
</tr>
</tbody>
</table>

### Winter Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS 0771</td>
<td>3</td>
<td>Advanced Clinical Medicine II</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>Required Clinical Rotations</td>
</tr>
</tbody>
</table>

### Spring Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>13</td>
<td>Required Clinical Rotations</td>
</tr>
</tbody>
</table>

### Third Professional Year

**Total Quarter Credit Hours Required** 68

### Summer Quarter

<table>
<thead>
<tr>
<th>Course</th>
<th>Hrs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PASS 0772</td>
<td>4</td>
<td>Advanced Clinical Medicine III</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>Practicum Clinical Rotations</td>
</tr>
</tbody>
</table>

### Required Clinical Rotations

- **Emergency Medicine**: 6 weeks (6 credits)
- **Family Medicine**: 6 weeks (6 credits)
- **Geriatric Medicine**: 6 weeks (6 credits)
- **Internal Medicine**: 6 weeks (6 credits)
- **Pediatrics**: 6 weeks (6 credits)
- **Women’s Health**: 6 weeks (6 credits)
- **Behavioral Medicine**: 6 weeks (6 credits)
- **Surgery**: 6 weeks (6 credits)
- **Practicum (Total)**: 8 weeks (8 credits)

**Total**: 56 weeks (56 credits)

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.

#### Year 1: Required Preclinical 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: Human Anatomy/Embryology, Human Physiology

**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: 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 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 healthcare. 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 therapist, occupational therapists, clinical psychologists) using practitioner-patient demonstrations utilizing a surrogate patient.

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: Clinical Biochemistry and Nutrition

**MICR 0482 Infectious Diseases**

This didactic course covers basic clinical microbiology, pathogenic mechanisms, and antimicrobial agents relating to the understanding, rational management, and control of infectious agents. Additionally, students develop problem-based learning skills through interactive self-study and computer-assisted learning exercises involving case presentations. The course includes laboratory sessions that provide hands-on experience in clinical microbiology laboratory procedures. Students receive instruction on staining techniques, growth requirements, identification criteria, and antibiotic therapy for commonly occurring infectious agents. Students are also introduced to a number of diagnostic tests currently available for rapid diagnosis of infectious disease.

4 credits  
Prerequisite: 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 0463 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: 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

**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

**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.

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.

6 credits
Prerequisite: Clinical Medicine II

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: Clinical Medicine III

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 0601 Research Design Issues
This course provides an overview of 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

PASS 0602 Principles of Biostatistics
This course covers elementary statistical techniques, introduction to probability, measurement theory, correlational and regression analysis, sampling, significance tests, and statistical inference.

3 credits

PASS 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

PASS 0650, 0651, 0652, 0653 Medical Update I, II, III, IV
The purpose of this four-part course is to instruct clinical year physician assistant students about the clinical topics and the related responsibilities of the physician assistant (PA). The course series will cover a variety of clinical topics to continue didactic learning opportunities. In addition to classroom instruction, the course will include small group sessions with varying curricular formats. These sessions will frequently include students presenting case studies and facilitating discussion with the other group members.

1 credit per quarter

PASS 0770 Advanced Clinical Medicine I
This course is designed to build upon clinical year PA students’ foundation of clinical medicine knowledge and to prepare them 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 clinical year PA students’ foundation of clinical medicine knowledge and to continue to develop students’ 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: Advanced Clinical Medicine I

PASS 0772 Advanced Clinical Medicine III
This course is designed to build upon clinical year PA students’ foundation of clinical medicine knowledge. Guest lecturers with clinical expertise in a variety of fields will
provide advanced information and instruction covering a range of medical topics. 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: Advanced Clinical Medicine II

PHAR 0484, 0485, 0486 Pharmacology I, II, III
This course sequence introduces students to the general principles of drug action, drug dynamics and kinetics, toxicities, and therapeutic uses as related to humans. Students are exposed to common drugs affecting major organ systems of the body, namely the autonomic nervous system, central nervous system, cardiovascular and renal systems, and gastrointestinal and genitourinary systems. In addition, in-depth discussions on chemotherapy of microbial and parasitic organisms, chemotherapy of neoplastic diseases, drugs acting on blood-forming organs, and hormones and vitamins are presented. The course also includes brief discussions of environmental toxic agents and antidotes.

3 credits per quarter
Prerequisites: Human Anatomy/Embryology, Human Physiology

PHYS 0460, 0470 Human Physiology I and II
In this two-quarter series, students are introduced through didactic instruction and clinical case sessions to the basic physiologic principles that underlie the normal function of the various organs and organ systems. These core principles provide the foundation through which the student develops an understanding of the physiologic adaptations and transitions that occur in commonly occurring disease states. Emphasis is given to developing an understanding of health in physiologic terms and an appreciation of the diverse regulatory processes that maintain the homeostasis of the human body. Topics presented include a general study of cell function, properties of excitable cells, and the function of the neuromuscular, cardiovascular, renal, respiratory, digestive, endocrine, and reproductive systems. The cases utilize small group clinical case sessions to promote critical thinking, development of problem solving skills, and appropriate clinical application of physiologic concepts and principles. As an active participant in these discussion sessions, the students identify, present, and discuss deviations from the norm as the patient’s history, symptoms, signs, and relevant laboratory findings are reviewed. Medical literature interpretation and case write-ups are included. This component of the course assists in providing a foundation for clinical decision making and diagnosis.

3.5 credits per quarter
Prerequisite: Clinical Biochemistry and Nutrition

Required Clinical Rotations/Practica (56 Credits Required)

Behavioral Medicine
This clinical experience integrates previous learning with actual clinical practice while working on hospital wards and in outpatient clinics. It emphasizes the behavioral and psychosocial aspects of common medical problems.
6 credits (6 weeks), Educational Setting: Both institutional and hospital-based sites

Emergency Medicine
This rotation stresses triage, evaluation, and management of injury and acute illness in patients presenting in the emergency department with a strong emphasis on appropriate documentation.
6 credits (6 weeks), Educational Setting: Hospital-based sites

Family Medicine
This rotation integrates patient data collection with basic medical facts in a variety of clinical situations. Emphasis is on psychosocial aspects of patient care and on continuity of care in the ambulatory setting. The goal is to ensure that the student is exposed to the more common disorders encountered in family practice.
6 credits (6 weeks), Educational Setting: Preference given to ambulatory sites

General Surgery
This rotation stresses the understanding of surgical diseases as presented in a clinical setting and mastery of preoperative and postoperative assessment of the patient, particularly in the ambulatory setting.
6 credits (6 weeks), Educational Setting: Hospital-based sites

Geriatrics
This rotation stresses the common health problems of the elderly patient and presents information necessary to provide optimal care. Students enhance their communication and physical examination skills. Disease prevention, compliance issues, and communication skills are important aspects of this rotation.
6 credits (6 weeks), Educational Setting: Ambulatory sites

Internal Medicine
During this clinical experience, students apply basic medical information to common medical problems and situations in ambulatory settings. The students participate in daily rounds and in the management of patient problems.
6 credits (6 weeks), Educational Setting: Both ambulatory and hospital-based sites
Pediatrics
This rotation emphasizes normal and abnormal growth and development along with assessment, communication, and physical examination skills in the diagnosis and treatment of pediatric situations.
6 credits (6 weeks), Educational Setting: Both ambulatory and hospital-based sites

Women's Health
This rotation focuses on the unique aspects of women’s health including the clinical issues of pregnancy, pre and post-partum care, menopause, and other related reproductive situations. The clinical experience is primarily in ambulatory, out-patient settings.
6 credits (6 weeks), Educational Setting: Primarily ambulatory

FACULTY
Sharon A Blattner, M.Ed., PA-C
Duke University
Assistant Professor

Phoebe A Foltz, MMS, PA-C
Midwestern University
Assistant Professor

Kristine M Healy, MPH, PA-C
Albany Medical College & Hudson Valley Community College
Assistant Professor

David A Luce, MMS, PA-C
Hahnemann College of Allied Health Sciences
Assistant Professor

Lendall Richardson, MD
Loyola University of Chicago Stritch School of Medicine
Assistant Professor

Kara N Roman, MMS, PA-C
Midwestern University
Assistant Professor

Alyson L Smith, MS, PA-C
Finch University of Health Sciences/ The Chicago Medical School
Assistant Professor and Program Director

Patrick J Towne, MD
Loyola University of Chicago Stritch School of Medicine
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.

PROGRAM 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 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 bases;
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.

ACCREDITATION
MWU is accredited by The Higher Learning Commission, a commission of the North Central Association of Colleges and Schools (NCA), 30 North LaSalle St., Suite 2400, Chicago, IL 60602-2504; 800-621-7440. 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.

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 Physical Therapy Program uses a rolling admissions process where applications are processed and reviewed during regular intervals in the admissions cycle until the class is filled. All applicants are encouraged to submit their application as early in the cycle as possible. Applications with all required materials must be received by the Office of Admissions by January 14, 2008.

Completed applications are reviewed 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.

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. Graduate Record Examination (GRE) general test scores must be submitted; the test must have been taken no earlier than January 1, 2003. The Midwestern University institution code for the GRE is 1769. For more information about the GRE, contact Educational Testing Services (ETS) at 800/GRE-CALL, or visit www.gre.org.
5. Completion of a first aid course within the past three years.
6. 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.

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 nonremedial English composition, and 3 hours in speech/communication.
Prerequisite Courses

**Science Courses:**
- Biology with lab
- Vertebrate Anatomy (2 cr.) and Physiology (2 cr.) with lab
- General Chemistry with lab
- General Physics with lab

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with lab</td>
<td>4 Semester/6 quarter hours</td>
</tr>
<tr>
<td>Vertebrate Anatomy (2 cr.) and Physiology (2 cr.) with lab</td>
<td>4 Semester/6 quarter hours</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>4 Semester/6 quarter hours</td>
</tr>
<tr>
<td>General Physics with lab</td>
<td>8 Semester/12 quarter hours</td>
</tr>
</tbody>
</table>

**General Courses:**
- Math (college algebra or above)
- Statistics (should include inferential statistics)
- English—must include at least one composition course (oral communication/public speaking recommended)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math (college algebra or above)</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>Statistics (should include inferential statistics)</td>
<td>3 Semester/4 quarter hours</td>
</tr>
<tr>
<td>English—must include at least one composition course (oral communication/public speaking recommended)</td>
<td>9 Semester/13 quarter hours</td>
</tr>
</tbody>
</table>

**Social & Behavioral Sciences** (at least one each: psychology and sociology)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>9 Semester/13 quarter hours</td>
</tr>
</tbody>
</table>

Application Process

To be considered for admission to the Physical Therapy Program, students must submit the following application materials to the Office of Admissions by January 14, 2008:

1. A properly completed application. The application, forms and instructions must be downloaded at www.midwestern.edu; click on the IL Physical Therapy Program section. For questions about the application or the admissions process, you may contact the Office of Admissions at 800/458-6253; e-mail: admisill@midwestern.edu.

2. A nonrefundable, nonwaivable application fee of $50. Make checks payable to Midwestern University: PT.

3. Two properly signed and sealed letters of recommendation from professionals who know you well. The Office of Admissions will accept letters from prehealth advisors/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. GRE general test scores.

Send all application materials to:

The Office of Admissions
Midwestern University
555 31st St.
Downers Grove, IL 60515

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.

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 then 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 to 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.

Dual Acceptance Program—College 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 admissions offices at the University of Saint Francis and/or Midwestern University.

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 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. Arrange to have all final college transcript(s) submitted to the Office of Admissions no later than the date designated in the matriculation agreement.
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. Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS (for non-U.S. citizens/nonpermanent residents only).
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.

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 Student Handbook. 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.

**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.

**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. Submit a properly completed and signed graduation clearance form to 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 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 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 a legal agreement with the University.

**Curriculum Structure, Course Quarter Hour Credits, and Sequencing**

**First Professional Year**

<table>
<thead>
<tr>
<th>Total Quarter Credit Hours Required</th>
<th>63.5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Quarter</strong></td>
<td></td>
</tr>
<tr>
<td>ANAT 0450  Human Anatomy I and Embryology</td>
<td>7</td>
</tr>
<tr>
<td>BIOC 0453  Cell and Tissue Structure</td>
<td>2</td>
</tr>
<tr>
<td>PTHE 0501  Clinical Problem Solving I</td>
<td>2</td>
</tr>
<tr>
<td>PTHE 0510  Health Professionalism I</td>
<td>2</td>
</tr>
<tr>
<td>PTHE 0526  Medical Terminology</td>
<td>0.5</td>
</tr>
<tr>
<td>PTHE 0540  Biopsychosocial Issues in Health Care</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16.5</td>
</tr>
</tbody>
</table>

| **Fall Quarter**                   |      |
| CORE 1399  Health Care Issues | 1 |
| PHYS 0460  Human Physiology I | 3.5 |
| PTHE 0530  Research | 3 |
| PTHE 0550  Health Promotion I | 2 |
| PTHE 0570  Physical Therapy Roles and Professional Issues I | 2 |
| PTHE 0575  Physical Therapy Evaluation I | 4 |
| PTHE 0580  Kinesiology/Biomechanics I | 3 |
| **Total** | 18.5 |

| **Winter Quarter**                 |      |
| PHYS 0470  Human Physiology II | 3.5 |
| PTHE 0525  Clinical Conditions I | 4 |
| PTHE 0560  Education Principles | 3 |
| PTHE 0581  Kinesiology/Biomechanics II | 3 |
| PTHE 0590  Physical Therapy Interventions I | 2 |
| PTHE 0597  Simulated Physical Therapy Clinic I | 1 |
| **Total** | 16.5 |

| **Spring Quarter**                 |      |
| PTHE 0517  Lifespan Human Development | 3 |
| PTHE 0573  Human Neuroscience | 3 |
| PTHE 0576  Physical Therapy Evaluation II | 4 |
| PTHE 0591  Physical Therapy Interventions II | 2 |
| **Total** | 12 |

**Second Professional Year**

<table>
<thead>
<tr>
<th>Total Quarter Credit Hours Required</th>
<th>55</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summer Quarter</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS 0637  Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PTHE 0598  Practicum I (3 weeks full-time)</td>
<td>3</td>
</tr>
<tr>
<td>Quarter</td>
<td>Course Code</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td><strong>Fall Quarter</strong></td>
<td>PTHE 0626</td>
</tr>
<tr>
<td></td>
<td>PTHE 0673</td>
</tr>
<tr>
<td></td>
<td>PTHE 0690</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td>PTHE 0602</td>
</tr>
<tr>
<td></td>
<td>PTHE 0604</td>
</tr>
<tr>
<td></td>
<td>PTHE 0634</td>
</tr>
<tr>
<td></td>
<td>PTHE 0657</td>
</tr>
<tr>
<td></td>
<td>PTHE 0675</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spring Quarter</strong></td>
<td>PTHE 0611</td>
</tr>
<tr>
<td></td>
<td>PTHE 0635</td>
</tr>
<tr>
<td></td>
<td>PTHE 0648</td>
</tr>
<tr>
<td></td>
<td>PTHE 0691</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Third Professional Year</strong></td>
<td>PTHE 0603</td>
</tr>
<tr>
<td></td>
<td>PTHE 0697</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Summer Quarter</strong></td>
<td>PTHE 0600</td>
</tr>
<tr>
<td></td>
<td>PTHE 0619</td>
</tr>
<tr>
<td></td>
<td>PTHE 0679</td>
</tr>
<tr>
<td></td>
<td>PTHE 0672</td>
</tr>
<tr>
<td></td>
<td>PTHE 0692</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Fall Quarter</strong></td>
<td>PTHE 0557</td>
</tr>
<tr>
<td></td>
<td>PTHE 0605</td>
</tr>
<tr>
<td></td>
<td>PTHE 0627</td>
</tr>
<tr>
<td></td>
<td>PTHE 0650</td>
</tr>
<tr>
<td></td>
<td>PTHE 0670</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Winter Quarter</strong></td>
<td>PTHE 0671</td>
</tr>
<tr>
<td></td>
<td>PTHE 0698</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Spring Quarter</strong></td>
<td>PTHE 0606</td>
</tr>
<tr>
<td><strong>Total Quarter Credits in the Professional Program:</strong></td>
<td>PTHE 0699</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Elective Options:**
- BIOC 1670 Clinical Nutrition 1
- BISC 0512 Fundamentals of Research 2
- PASS 0602 Principles of Biostatistics 3
- PASS 0603 Medical Writing 4
- PHAR 0415 Medical Spanish 2
- PHAR 0534 Pharmacological Aspects of Drug Use 2
- PHYS 1654 Physiology of Obesity 2

The MWU/CHS 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.

**Year 1: Required Courses**

**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 healthcare. 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

**ANAT 0450 Human Anatomy II/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 (including laboratory sessions)

**BIOC 0453 Cell and Tissue Structure and Function**
This course provides an introduction to cell and tissue biology and metabolism. It focuses on the structure and function of normal human tissues and organs providing the student with the basic science framework to apply the information to physical therapy intervention. Application of
this material should help students understand 1) normal growth and development of human cells, tissues, organs and organ systems; 2) functional differences in cells, tissues, organs and organ systems in normal and pathological states; 3) tissue healing and repair; 4) response of tissue to therapeutic intervention.

2 credits

**PHYS 0460, 0470 Human Physiology I, II**

In this 2 quarter sequence, students are introduced to 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. Didactic lectures are supplemented with weekly workshops that focus on problem-solving and application of physiological concepts. Topics presented over the 2-quarter sequence are 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: Cell and Tissue Structure and Function

**PTHE 0501 Clinical Problem Solving I**

This course introduces the theoretical frameworks for clinical problem-solving and develops students’ ability to analyze a variety of levels of clinical reasoning, analyze clinical problems, including the identification of critical cues, gathering of information, development of hypotheses, testing of hypotheses, and analysis of results of hypothesis testing. The concept of evidence-based practice is introduced to students as part of the clinical reasoning process. Skills for accessing, organizing, using, and citing health care literature, assessing levels of evidence, mapping clinical concepts, and developing decision trees are applied to problems in physical therapist practice. Course material is presented to students in a format that lays the foundation for application to subsequent coursework and clinical experiences. A combination of lecture, discussion, intra-dependent group activities, individual projects, reading assignments, and completion of a standardized reasoning assessment will be used to achieve the course objectives.

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. The students are also introduced to the issue of limited health care resources in urban and rural communities. Clinical field experiences provide the students an opportunity to display professional behavior, discuss issues in health care delivery, and interact with health care team members in various practice settings. Field experiences begin the students’ professional socialization in the context of the health care continuum and physical therapy services. The field experiences are observational and the students are not engaged in direct patient care activities. Students are expected to integrate instruction with clinical practice and develop a framework for subsequent coursework. A combination of lecture, discussion, off-campus field experiences, and presentations will be used in the course.

2 credits (including field experiences)

**PTHE 0517 Life Span Human Development**

This course explores human development across the life span. The inter-relationships of physical, psychological, and social development are examined and related to successful physical therapy intervention strategies with individuals at different stages of development. The development of movement, and the developmental changes of the body tissues and systems supporting movement are analyzed in depth and related to acquisition of functional movement skills. The impact of abnormal motor development and pathological movement on development is also explored. Course content related to normal development across the life span includes discussion and application of theories of development; language development and communication abilities; social development; normal and atypical motor development; and functional skill acquisition. Specific development of the cardiovascular and pulmonary, musculoskeletal, and neurological systems will be analyzed as related to acquisition of functional skills. Appropriate standardized developmental and functional assessment instruments for a variety of age groups, will be reviewed and selected tests will be administered. Students will relate principles of development to appropriate communication and strategies and functional expectations that can be applied to therapeutic management of infants, children, adolescents, adults, and older adults. Students will be expected to design wellness/fitness programming for infants, children, and adolescents, and older adults. A combination of lecture, laboratory, discussion groups, independent study and interactions with children, families, and older adults will be used in this course.

3 credits (including laboratory sessions)
Prerequisites: Human Anatomy I/Embryology, Human Physiology I and II, Kinesiology/Biomechanics I and II, Cell and Tissue Structure
**PTHE 0525 Clinical Conditions I**
This course provides lectures about general pathology and medical imaging. Basic principles in interpreting images, as applied to physical therapy practice, are presented. The course also introduces students to the medical and surgical management of patients with general medicine and select orthopedic conditions. Genetic and behavioral risk factors, clinical signs and symptoms, diagnostic tests differential diagnosis, pharmacological treatment, and medical management of these conditions are addressed with an emphasis on prevention. Lectures presented by physicians, nurses, and physical therapists, combined with student-directed discussions of case studies promote critical thinking.

Prerequisites: Human Anatomy I/Embryology, Human Physiology I and II, Kinesiology/Biomechanics I and II, Cell and Tissue Structure

**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 terms as well as allow them to practice using prefixes, suffixes, word roots, and combining forms to gain an understanding of medical terminology. The course includes information on vocabulary, definitions, spelling, and pronunciation. A problem-solving approach to learning is the key strategy and focus of this course. 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**
Research is an important factor for any clinician. This multidisciplinary course provides students with a basic understanding of the tenets of the research process, from coming up with an idea for a research project, through the IRB, and all the way to the collection of data. By allowing students to understand this process, the course teaches students to be critical consumers of research literature presented within a professional setting. The core multidisciplinary research course is supplemented with weekly PT breakout sessions aimed at providing additional research-related material and examples that are relevant to the profession of physical therapy.

3 credits

**PTHE 0540 Biopsychosocial Issues**
This course prepares students to recognize and respond sensitively to the biopsychosocial needs of patients, families and others during professional interactions. The biopsychosocial model is introduced, with attention to its health-related implications at the level of the person, the family and society. The class explores the impact of disability on quality of life, with focus on changes in body image, sexuality, family and societal roles, etc. Multiple factors that influence health perception, response to disability, and health care systems are discussed, including age, gender, race, socioeconomic status, religion, culture, nationality, etc. The development and maintenance of therapeutic relationships is emphasized. Concepts of empathy, positive versus negative helping behaviors, professional closeness and appropriate boundaries are presented. In this class, the intentional development and use of good communication to facilitate the therapeutic relationship is promoted, including awareness of language, listening skills, appropriate humor, assertiveness, etc. Strategies for communicating with patients, families, and other health care professionals in difficult situations are discussed, with special attention to interactions with patients with terminal illness. The class also briefly covers selected brain disorders affecting emotions and behavior, such as depression, schizophrenia, etc. The roles of and recommendations for referral to other practitioners (social workers, psychologists, psychiatrists, and pastoral care workers) are presented. Emotional and psychological issues inherent in the role of the physical therapist, including stress management and burnout, are discussed. A variety of formats are used to achieve the learning objectives, including lecture, small group discussion, simulations/role-plays, case studies, journal writing, and book/movie analysis. Throughout this class, students are asked to reflect upon themselves, their families, and the society in which we live; to gain insight into their own emotional and psychological issues; to identify their own communication styles and behavior patterns; and to become fully aware of the patient as a whole person.

3 credits

**PTHE 0550 Health Promotion I**
Health promotion and disease/injury prevention are primary roles fulfilled by physical therapists. This course, which is the first of two in a series, will provide a conceptual framework for health promotion and disease/injury prevention across the life span. The foundation for the conceptual framework is built on public health policy and basic epidemiological principles. Course content focuses on definitions of health promotion and disease/injury prevention, risk and its relation to disease, assessment of risk, interventions to minimize risk/promote health, constraints to health education programming and compliance issues, cultural issues related to health promotion and disease/injury prevention and health promotion, disease/injury prevention issues after disability and evaluation of health promotion and disease/injury prevention programs. The current roles of physical therapists, physical therapist assistants, and other health practitioners in health promotion and disease prevention are addressed. To illustrate the framework and evaluate students’ ability to use it, students assess their own level of wellness, implement a
personal wellness plan and analyze the success of their interventions to maximize their own level of wellness. Students also present an analysis of a community health promotion and disease/injury prevention program to their classmates and interested members of the Midwestern University community. A combination of lecture and discussion will be used in this course.

2 credits

PTHE 0560 Education Principles
This course provides the foundation for systematically designing, implementing, and evaluating learning experiences used in the education of patients, caregivers, students, colleagues, community members, and self. Students will gain knowledge in the role of the healthcare professional in education, principles of learning, teaching and learning modes and needs, goal setting, writing behavioral objectives, instructional strategies, strategies for group facilitation, patient and family education, and teaching in both the clinical and academic settings. Students will also learn how to evaluate teaching and participant learning as well as assess educational outcomes. Students will be required to apply this knowledge by critiquing existing educational materials, presenting a microteaching segment, and critiquing peer’s microteaching. This course will be delivered using lecture, group discussion, microteaching, as well as structured projects.

3 credits

PTHE 0570 Physical Therapy Roles and Professional Issues I
The multiple roles of the physical therapist across the health care delivery system as a patient care provider, educator, supervisor, consultant, and scientist are described and the implications for physical therapy practice are discussed. Current issues in physical therapy practice, regulation, and healthcare reimbursement are analyzed. The roles of the physical therapy professional association and on-going professional development are discussed. Course content includes discussion of the definition of physical therapy practice, physical therapist roles, healthcare team member roles, group dynamics, reimbursement issues, legal practice issues, standards of practice, principles of supervision, self-evaluation, roles of the professional association and professional development. Students will be expected to integrate the description of physical therapy practice and the role of physical therapists in the healthcare system via the development of presentations directed towards varied community groups. Students will be expected to analyze the clinical practice issues of supervision, legal and ethical standards, reimbursement and standards of practice via the analysis of a case study. Participation in a debate focusing on reimbursement issues will facilitate analysis of the impact of reimbursement on the provision of healthcare. The students will be expected to develop a personal plan for their professional development and support and contribution to the profession. A combination of lecture, student-led discussion and debate formats will be used in this course.

2 credits

Prerequisite: Health Professionalism I, Clinical Problem Solving I, and Biopsychosocial Issues

PTHE 0573 Human Neuroscience
This course is the first of two neuroscience courses. This course develops a student’s ability to identify and describe the principle structural components and corresponding functions of the nervous system. Lesions involving these structures will be correlated with neurological deficits and dysfunctions. Topics will include gross anatomical structures and their function, sensory system, motor system, and visual system. Lectures followed by laboratory sessions and case studies promote a complex understanding of various aspects of neurosciences, in addition to promoting critical thinking and development of problem solving skills. Students are expected to relate structural components of the central nervous system to their function, correlate nervous system lesions 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. Each student’s final grade will be based on written examinations, practical examinations, and assignments.

3 credits (including lab sessions)

Prerequisites: Human Physiology I, II; Human Anatomy I/Embryology

PTHE 0575 Physical Therapy Evaluation I
This course, the first of three in a series, is an introduction to the evaluative process in physical therapy. Students gain knowledge of how to begin to organize and interpret results from a basic examination of non-complex patient problems. They gain understanding and practical skill in patient questioning and history taking, completion of pain assessment tools, measurement of vital signs, gross postural assessment, palpation skill, anthropometric measurement, goniometric assessment, range of motion testing, manual muscle strength testing and sensory assessment. This course also introduces documentation in physical therapy practice, and students will learn how to document the results of a subjective history and physical examination in a format suitable for a patient’s medical record. By the end of this course students are expected to be able to document, select, and perform appropriate components of an initial evaluation of a given noncomplex patient problem. Finally, students are expected to generate a problem list and begin to interpret the results of data gathered during an examination. Material in this course is delivered using a combination of lecture and laboratory sessions.

4 credits

Prerequisite: Human Anatomy I/Embryology, Cell Structure and Function
PTHE 0576 Physical Therapy Evaluation II
This course builds on the principles of evaluation in physical therapy previously introduced in PTHE 0575 Patient Evaluation I. Students continue to refine the ability to take a patient history and plan for evaluation of a given patient problem. The process of evaluation is extended to include the development of a problem list and a physical therapy diagnosis, generation of long-term goals, and the development of a suitable basic plan of intervention. The primary objective of this course is to provide the entry-level student with the components necessary for the examination, evaluation, and assessment of any musculoskeletal patient problem in physical therapy. Musculoskeletal course content focuses on the identification of dysfunction in specific regions of the body including the upper and lower limbs, the spine, pelvis and the temporomandibular joint. Students learn new skills in special testing and joint examination procedures. The use of strength testing devices in evaluation and re-evaluation is covered including hand-held dynamometry and isokinetic testing. Functional assessment in physical therapy evaluation is emphasized throughout this course. Students continue to refine their documentation skills, which are extended to include written goals and a plan. Students develop specific re-evaluation plans with timelines for given patient problems. The modification of an initial evaluation plan to fit the needs of the patient is also discussed. Finally, students continue to discuss reliability and validity issues related to examination measures used in physical therapy, and will use that information appropriately when making clinical decisions based on data collected during the examination process. Students become more proficient in selecting appropriate special tests and examination procedures to clarify the clinical picture and lead to an appropriate diagnosis. Students are expected to be able to analyze given information and formulate appropriate clinical hypotheses; to provide a rationale for any and all decisions that they make; to be able to interpret and analyze data from the examination to identify areas of limitation; and to use the information gathered to plan an appropriate physical therapy intervention. A combination of lecture, laboratory, and discussion sessions are used to deliver this course. Students are required to complete three projects that develop their clinical problem-solving skills and their documentation skills as well as written examinations to test their knowledge base, the synthesis and analysis of information, and clinical decision-making skills. Practical examinations are used to assess safety, efficiency, and effectiveness in performing examination procedures as well as to assess the student’s ability to select appropriate examination tools for a given patient problem.

4 credits
Prerequisite: Physical Therapy Evaluation I, Clinical Problem Solving I, Education Principles for Physical Therapy, Physiology I & 2, Clinical Conditions I, Physical Therapy Interventions I

PTHE 0580 Kinesiology/Biomechanics I
Physical therapists must understand the biomechanics of normal movement and the pathomechanics of the musculoskeletal system in order to prevent movement dysfunction and to evaluate patients with movement dysfunction. This course addresses the recognition and description of components of normal movement in static and dynamic activities. Course content includes discussion of basic theories of mechanics applied to normal tissues in static and dynamic states; structure and properties of connective tissue; normal joint mechanics for the shoulder, elbow, wrist and hand; interrelationships between the anatomical structure and the normal kinetic behavior of joints; and theories of motor learning and motor control influencing the activity of the musculoskeletal system. Evaluation and modification of activities and interventions in relation to force analysis are also addressed. Students are expected to analyze movement and apply the principles of biomechanics and kinesiology to normal and abnormal movement patterns, and to understand that the body functions as an interrelated system that responds to positioning or movement of any part within the system with secondary compensatory adjustments of other body parts. The teaching and evaluation methods used in this course include lecture, laboratory sessions, assigned readings, an upper extremity movement analysis project, and written examinations.

3 credits
Prerequisites: Human Anatomy I/Embryology, Cell and Tissue Structure

PTHE 0581 Kinesiology/Biomechanics II
This course is the second in the two-course series, Kinesiology/Biomechanics. The interrelationship between the anatomical structure and the normal kinematic behavior of joints of the spine, temporomandibular, pelvis, and lower extremities is addressed. This course also provides the student with knowledge to analyze the kinetics and kinematics of normal gait. The course incorporates and integrates knowledge previously gained from Human Anatomy and Embryology and Kinesiology/Biomechanics I. Students will be able to describe the relationship between joint structure and function of the spine, pelvis, temporomandibular joint, and lower extremity joints, and observe and analyze movements in these regions. Students will be able to analyze and describe normal gait, and analyze and describe the function of one of these joints during a complex functional motion. Specific course content includes anatomical structure and function of the lumbar, thoracic, and cervical spine, temporomandibular joint, pelvic joints, hip, knee, and foot and ankle joints. The six determinants of gait, normal gait terminology, joint and muscular requirements during normal gait, and kinetics of gait are also addressed. A variety of teaching methods are used including lectures, laboratory
sessions, small group project, videoanalysis, and written examinations.
3 credits
Prerequisite: Kinesiology/Biomechanics 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. The development, reassessment, and documentation of treatment plans are emphasized using a problem-solving approach. 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 clinic visit times are included.
2 credits
Prerequisites: Clinical Problem Solving I, Physical Therapy Evaluation I, Kinesiology/Biomechanics I, concurrent registration in Kinesiology/Biomechanics II

PTHE 0591 Physical Therapy Interventions II
Physical Therapy Interventions II is the second course in the Physical Therapy Interventions series. This course provides students with the theoretical principles and skills of therapeutic exercise and joint mobilization as physical therapy interventions. Course material reinforces and applies knowledge from Human Anatomy I, Physiology, Patient Evaluation I and II, Physical Therapy Interventions I, and Kinesiology/Biomechanics I. Students develop a treatment plan of therapeutic exercise and/or joint mobilization based on the results of a physical therapy evaluation, differentiate strengthening activities, and select an appropriate strengthening activity for a given patient scenario. Students perform, teach, and monitor effective and safe therapeutic exercise and joint mobilization techniques. Course content includes isometric, isotonic, isokinetic, eccentric and concentric strengthening activities, active and passive stretching, proprioceptive neuromuscular facilitation (PNF), principles of musculoskeletal treatment and joint mobilization. Clinical conditions of the shoulder, elbow, wrist, and hand within a physical therapy management framework are also addressed. The teaching methods used in this course include lectures, large and small group discussions, laboratory demonstrations and practice, practical examinations, a group case study, and written examinations.
2 credits
Prerequisites: Physical Therapy Interventions I, Kinesiology/Biomechanics II, Education Principles for Physical Therapists, Clinical Conditions 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

Year 2: Required Courses

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: Human Physiology I & II

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
Prerequisite: 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 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 subjective information gathering process; planning the objective examination; and forming a physical therapy impression, intervention plan, and a re-evaluation plan. Communication to physicians regarding clinical impressions is included as well. Students are expected to describe the clinical reasoning process for comprehensive patient management and to communicate clinical findings to the appropriate health care professional. The course is delivered via a combination of lecture and discussion. Students are evaluated on a comprehensive management plan for two patient problems and on group discussion.
2 credits
Prerequisites: Physical Therapy Evaluation I, II; Clinical Problem Solving I, Physical Therapy Interventions I, II, and 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 is integrated into the first- and second-year program meetings (one session/quarter). Journal club meetings consist of review and discussion sessions of scientific evidence (journal articles) led by a pair of students. The sessions occur during the spring of the first year and continue into the winter of the second year. The journal club provides exposure to the following research or report designs: randomized clinical and controlled basic science PT-related studies, single subject design studies, descriptive research design studies, and case reports. Each student is expected to represent and lead the discussion of an article at least once to meet the course requirements. Participants are expected to have read and understood the article and to actively participate in the discussion. Discussion leaders are expected to go outside of the article to find additional sources when needed to clarify or further investigate an issue.
1 credit
Prerequisites: Research; Physical Therapy Roles and Professional Issues I

PTHE 0604 Cardiopulmonary (CP) Evaluation and Treatment
This course provides students with a comprehensive background in the anatomy, physiology, and pathology of the cardiovascular and pulmonary systems. These concepts will then form the basis for physical therapy management of people with cardiopulmonary disorders. Issues such as the effect of exercise training on the CP system and contraindications for PT are presented and discussed. The course includes a laboratory in which students learn physical therapy interventions for people with CP conditions. Learning is accomplished by lecture, in-class activities (presentations of case studies), out-of-class activities (i.e., homework), small group projects, and laboratory sessions where students learn physical therapy interventions for people with CP conditions.
4 credits
Prerequisites: Physical Therapy Interventions III, Physical Therapy Evaluation II, Clinical Conditions II

PTHE 0611 Simulated Physical Therapy Clinic II
Students practice skills in communication, time management, patient evaluation, infection control/standard precautions, cardiopulmonary resuscitation, mobility training, and patient education in a simulated physical therapy practice environment with simulated patients. Students also simulate patient conditions for first-year students in simulated physical therapy practice environments and provide feedback to first-year students on their performance. This course also provides opportunities to appreciate the perspective of patient/families on changes in health and health care delivery.
1 credit
Prerequisites: Practicum I, Patient Evaluation III, Biopsychosocial Issues, Clinical Problem Solving II, Physical Agents I, concurrent registration in Physical Agents II and Physical Therapy Interventions IV, Simulated Clinic I, Orthotics

PTHE 0626 Clinical Conditions II
In this course physical therapist students are introduced to the medical management of select general medicine situations (burns, infectious disease, hepatic/ biliary disease) as well as pulmonary, cardiac, and neurological conditions. Risk factors, clinical signs and symptoms, pathology, medical evaluation and management, and the differential diagnoses of these conditions are addressed with emphasis placed on prevention. Lectures, given by physicians, OT clinicians, and PT clinicians, are combined with problem-based learning sessions. The goal of the course is to promote critical thinking, to develop problem-solving skills, to learn about selected clinical conditions, and to apply appropriate physical therapy concepts to various medical conditions.
3 credits
Prerequisites: Clinical Conditions I, Human Neuroscience

PTHE 0634 Physical Agents I
This course addresses the physiological changes that occur as a result of application of selected physical and electrical modalities. Thermal agents covered are moist heat, paraffin wax, hydrotherapy, and ultrasound. Cryotherapy agents covered are ice massage, ice packs, cold packs, iced towels, cold compression units, and cryoprobe treatments. The principles of electrical stimulation of nerve and muscle are discussed. Delivery of medication to a patient using ultrasound and electricity is covered. Students will apply the use of ultrasound, electrical stimulation, and hydrotherapy in wound management, with the use of debridement and dressings in successful wound management. The response of normal and abnormal tissue to the application of each of these modalities is addressed. The emphasis in this course is on the safe and effective application of these therapeutic modalities to achieve specific therapeutic goals. Identification of specific treatment parameters that will most effectively achieve the therapeutic goals is critical in successful patient management. To that end, the underlying physiological rationale behind the use of each modality is discussed in detail. Comparisons are made between specific categories of modalities and among modalities in each category. Students are required to make initial modality choices based on these underlying physiological rationales and to identify appropriate treatment parameters for the chosen modality. Students will then be able to modify the
treatment plan appropriately based on the changing status and needs of the patient. The final component of successful use of these physical and electrical agents in clinical practice is to integrate them into a comprehensive physical treatment plan. Information in this course will primarily be delivered using lecture and laboratory formats. Case examples will be used throughout the course to illustrate points and to facilitate learning. Students will also be involved in group discussions concerning modality use with specific patient problems, and will be reviewing published literature to provide support for clinical decision-making.


PTHE 0635 Physical Agents II
This is the second course in a series of two. It builds on the theoretical principles behind the application of physical agents and electrotherapeutic modalities introduced in the first course. Students will learn application of additional physical agents and electrotherapeutic modalities that may be used in physical therapy practice. Course content includes aquatic therapy, actinotherapy, short wave diathermy, infrared radiation, and vapocoolant sprays. Electrotherapy for pain management and surface electromyography is discussed. The use of electrophysiologic evaluation in physical therapy practice is introduced through nerve velocity conduction testing and electromyographic testing. Understanding the process for safe and effective application of each of these therapeutic agents is emphasized. In addition, students will gain practical skill in the application of electrotherapy for pain management, surface electromyography, and aquatic exercise. Emphasis is also on the selection of appropriate physical agents and electrotherapeutic modalities in the physical therapy intervention plan for any patient problem, and the selection of appropriate treatment parameters. Students will be required to utilize knowledge gained from the previous class as well as from this class in analyzing a patient problem and identifying an appropriate plan of care. Students are expected to provide appropriate physiological and/or neurophysiological rationales for all decisions that they make. Learning experiences include lecture and laboratory sessions as well as consensus learning/group problem-solving sessions.

3 credits
Prerequisite: Physical Agents I

PTHE 0648 Management in Physical Therapy Systems
This course lays the foundation for understanding basic physical therapy management principles. Students will develop critical thinking skills to evaluate and implement health care management trends in the current health care environment. Specific course content includes discussion of health care environments and delivery systems, time-management, organizations, fiscal management, reimbursement and documentation, personnel leadership, sales and marketing, legal issues, and risk management. In addition, the course explores outcomes management in the health care industry. The history, development, and impact of outcomes research on health care delivery with a focus on physical therapy practice will be addressed. An emphasis is placed on the efficacy of physical therapy intervention via alterations in functional status and health-related quality of life measures. Basic principles for development and implementation of outcomes program are reviewed. The measurement of patient satisfaction outcomes is examined. Students are expected to actively participate in class discussions. Each student will complete written and oral presentations on topics pertaining to the course content listed above. In addition, each student will participate in a case study activity designed to analyze supervisory and leadership issues in the workplace. The course will use a combination of lecture, interactive seminar, discussion, and student presentations.

4 credits
Prerequisites: Physical Therapy Roles and Professional Issues I, Practicum I, Health Professionalism I, Health Promotions 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: Physical Therapy Roles and Professional Issues I, Practicum I, Health Professionalism I, Health Promotions I

PTHE 0673 Applied Neuroscience
This course emphasizes a clinical understanding of various aspects of human neuroscience. Lectures combined with lab sessions and case study discussions promote a complex understanding of various aspects of human neuroscience as well as promote critical thinking, development of problem solving skills, and application of appropriate therapeutic concepts to treatment of various neurological conditions. This course studies neuroscience from a regional perspective including functional implications of lesions in various regions; lifespan central nervous system development and
implications of nervous system development on human function; recovery and repair processes in the nervous system; and neuroplasticity. Clinical applications including exploration of the neuroscience foundations for therapeutic intervention, neuroimaging, and neuropharmacology are also included. Students are expected to relate structural components of the central nervous system to their function; correlate nervous system lesions with neurological deficits/dysfunction seen in clinical practice; and analyze theoretical bases for therapeutic approaches including, but not limited to, traditional neurotherapeutic approaches (Rood, NDT, Brunnstrom) and evolving concepts of motor control and motor learning.

3 credits (including laboratory sessions); Interdisciplinary Faculty including Anatomy, Physiology, and Physical Therapy Program Faculties
Prerequisites: Human Physiology I and II, Human Anatomy I/Embryology, Human Neuroscience

*PTHE 0675 Physical Therapy Evaluation III*
This is the third course in the Physical Therapy Evaluation series. The course builds on examination and evaluation principles and skills addressed in PTHE 0575, Physical Therapy Evaluation I, and PTHE 0576, Physical Therapy Evaluation II.

Course content includes neurologic and functional evaluation for adult and pediatric patients. The course content will also include an overview of the similarities and differences between orthopedic and neurologic evaluation approaches; the relation of historical and current theories of motor control to traditional and evolving evaluation methods; and discussion of the complexity/difficulty of measurement in patients with movement disorders. Manual muscle testing for adult and pediatric patients with neurologic impairment, and range of motion measurement in pediatrics will be introduced and practiced. Standardized measurement tools for the evaluation of common neurological impairments such as abnormal muscle tone, abnormal reflexes, abnormal movement (synergies, ataxia etc.), incoordination, static and dynamic imbalance, and pathological gait patterns will be presented and practiced. Evaluation of the effect of neurological impairments on respiratory function, arousal, mentation, and cognition will be presented and practiced. Functional limitations/disabilities evaluation through the use of Basic Activities of Daily Living (ADL) and Instrumental-ADL scales will be introduced and practiced.

Functional assessment in physical therapy evaluation is emphasized throughout this course. Students will continue to refine their documentation skills, including documenting the examination, evaluation, diagnosis and prognosis, with written goals. Students will develop specific re-evaluation plans with timeline for given patient problems. The modification of an initial evaluation plan to fit the needs of the patient will be discussed. Finally, students will continue to discuss reliability and validity issues related to examination measures used in physical therapy. They will use that information appropriately when making clinical decisions based on data collected during the examination process.

Students are expected to be able to analyze information and formulate appropriate clinical hypotheses. They will be expected to provide a rationale for any and all decisions that they make. Students are expected to be able to interpret and analyze data from the examination to identify areas of patient strengths and limitations, and to use the information gathered to generate a general intervention plan.

A combination of lecture, laboratory, and discussion sessions will be used to deliver this course. Written examinations will be used to evaluate the student’s knowledge base, synthesis and analysis of information, and clinical decision making skills. Practical examinations will be given to evaluate the student’s safety, efficiency, and effectiveness in performing examination procedures. One written project will be used to evaluate the student’s ability to analyze a patient case. Guidelines for the project will be distributed to students at an appropriate time during this quarter.

3 credits
Prerequisites: Kinesiology/Biomechanics II, Clinical Conditions II, Physical Therapist Evaluation II, Life Span Human Development, Applied Neuroscience

*PTHE 0690 Physical Therapy Interventions III*
Physical Therapy Intervention III is the third course in a series of five courses. This course builds on the principles of developing intervention plans of therapeutic exercise and/or joint mobilization previously introduced in Physical Therapy Interventions II. This course applies those principles to areas of the body not previously covered including the spinal, temporomandibular, pelvic, and lower extremity joints. In addition, clinical conditions affecting these areas of the body are discussed as they relate to developing physical therapy intervention plans. The teaching and evaluation methods used in this course include lectures, discussion sessions, laboratory demonstrations and practice, practical examinations, a group case study, and written examinations.

3 credits
Prerequisites: Physical Therapy Interventions II, Physical Therapy Evaluation II

*PTHE 0691 Physical Therapy Interventions IV*
This is the fourth course in the five course Physical Therapy Interventions series. This course focuses on the design, implementation, and evaluation of comprehensive treatment plans for adult and pediatric patients with neurological
dysfunction. Students will be expected to apply the theoretical basis of neurologic therapeutic interventions covered in PTHE 0673: Applied Neuroscience.

Students will be expected to develop treatment plans for patients with neurologic dysfunction based on videotaped patient cases, and in problem-based learning cases. Students will be expected to know when to incorporate motor control and motor learning strategies (e.g., manipulating task constraints; setting up the environment; structuring practice) into the treatment plan. Students will also be able to practice reinforcement, facilitation, and inhibitory techniques and recognize when these may aid in attainment of functional goals. Therapeutic interventions for the improvement of balance, coordination, posture, and gait; independence and safety in functional skills (i.e., transfers, ADL and Instrumental ADL); use of adaptive equipment and orthotics, will also be included. Students will also be able to implement treatment activities with patients in clinical settings, under the supervision of physical therapists in those settings.

Course content includes development of treatment plans as described above; progression and modification of treatment plans; documentation of physical therapy management of the patient with neurologic dysfunction; discharge planning and follow-up care. Neurologic conditions commonly seen in adults and children are addressed. Physical therapy management of patients with adult vestibular disorders and pediatric sensory integration dysfunction are also included.

The teaching methods utilized in this course include lectures, laboratory demonstration and practice, clinic visits, problem based learning, practical examinations, and written examinations.

5 credits (including laboratory sessions)
Prerequisites: Kinesiology/Biomechanics II, Clinical Conditions II, Life Span Human Development, Applied Neuroscience; Physical Therapy Interventions III, Physical Therapy Evaluation III, Clinical Problem Solving II, Orthotics

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: 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

Year 3: Required Courses

PTHE 0557 Prosthetics
This course introduces students to the use of prostheses to improve function as a result of impairment of the upper or lower extremity. 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 reading assignments are used to achieve the course objectives.

2 credits
Prerequisites: Lifespan Human Development, Physical Therapy Evaluation I, Clinical Conditions I, Kinesiology/Biomechanics I and II, Interventions I, Anatomy/Embryology I, Physiology I and II

PTHE 0600 Human Anatomy II
This course examines the anatomical structure of the extremities, trunk, and neck. Emphasis is placed on the anatomical structure of the extremity joints and the spine, and their relationship to function and movement. Information on anatomical structures and their functions is applied to clinical issues that relate to physical therapy evaluation and treatment. Self-directed learning is an expectation of this course. Lectures, labs, and discussion sessions are used to accommodate learning for different learning styles.

3 credits

PTHE 0605 Clinical Problem Solving III
This is the last course in the Clinical Problem Solving series, designed to reinforce and enhance the reasoning process used to make clinical decisions. This course focuses on the comprehensive management of patients with neurologic dysfunction; clinical application of motor-control theory is addressed. Breadth and depth of knowledge personally available for decision-making are assessed, as are strategies for critical thinking. 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: Clinical Problem Solving I and II, Physical Therapy Evaluation III, Physical Therapy Interventions IV
PTHE 0606 Scholarly Development in Physical Therapy
Students develop an evidenced-based, detailed, and publishable case report using an independent-study format. Each student is expected to meet with his or her faculty advisor prior to the beginning of the Practicum II clinical rotation regarding selection of a patient and expectations for the report. Collection of patient data occurs during the PTHE 0697 Practicum II rotation; the faculty mentor edits and advises the student. Preliminary drafts should be submitted in the third summer and during the Practicum III clinical rotation. The final product is expected to be of publishable quality. After the final written case report is accepted (during the Practicum 4 clinical rotation), students present their case reports during the final week of the program curriculum in a platform or poster format.
2 credits
Prerequisites: Research for Physical Therapists, Physical Therapy Roles and Professional Issues I, Scholarship in Physical Therapist Practice

PTHE 0619 Pediatric and Geriatric Interventions
This course provides an introduction to principles of physical therapy practice with children and older adults. The roles of the therapist in the neonatal intensive care unit, early intervention, the educational environment, home care, and geriatric rehabilitation are explored. Physical therapy evaluation and intervention issues and strategies specific to infants, children, adolescents, and older adults are introduced. Physical therapy interventions for specific conditions related to these age groups is also discussed. Issues related to legislation (Individuals with Disabilities Education Act and Medicare) are discussed and applied to patient management plan development by the students. A combination of lecture, active laboratory experiences, and small presentations are used to facilitate learning in this course.
3 credits
Prerequisite: Life Span Human Development

PTHE 0627 Essentials of Pharmacology for Physical Therapists
This course introduces students to the role of the pharmacist and pharmacological intervention in patient management. The course describes basic pharmacodynamics (drug-receptor interactions, dose-response curves) and pharmacokinetics (i.e., absorption, distribution, metabolism, excretion, and storage of drugs within the human body); identifies general categories of drugs affecting individual body systems; and explores potential interactions of physical therapy treatments (i.e., exercise, heat/cold modalities) and pharmacokinetics. The course is composed of lecture, case-based learning experiences, and independent study.
2 credits
Prerequisites: Clinical Conditions I & II, Neuroscience, Applied Neuroscience, Physiology I & II, Cardio Pulmonary Evaluation and Treatment

PTHE 0650 Health Promotion II
This is the second of a two-course series focusing on wellness and prevention. In this course students have the opportunity to apply principles presented in Health Promotion I as well as appropriate principles of teaching and learning. In small groups, the students are expected to plan, implement, and evaluate a health promotion and/or disease/injury prevention program for a community group in need of wellness or prevention services. Planning for the program includes assessment of need for health promotion and/or disease/injury prevention services in a given community group. Each group of students develops and implements their wellness or disease/injury prevention under the guidance of a faculty mentor. Each group also does an oral presentation to the class focusing on an in-depth analysis of the strengths and weaknesses of their wellness and/or disease/injury prevention program. This class is a combination of independent study and discussion.
2 credits
Prerequisite: Health Promotion I

PTHE 0670 Physical Therapy Roles and Professional Issues II
This is the second of three courses in a series that further develops a student’s understanding of the multifaceted role of the physical therapist and current issues in the profession. Students analyze a variety of current international and domestic professional issues on health care and physical therapy and refine their appreciation of roles of the physical therapist, including the roles of clinical instructor and supervisor of the physical therapist assistant and physical therapy aide. Specific skills for delegating to, supervising and teaching supportive personnel and physical therapist/physical therapist students are developed. The role of the physical therapist is contrasted with that of selected other health professionals. Licensure regulations and employment opportunities in physical therapy are discussed. Lecture, discussion, and debate formats are used in this course. Students analyze the breadth and depth of issues presented in class through essay questions, debates, and an oral exam. Students write an individual plan for support of and contribution to physical therapy and a personal philosophy of clinical education.
3 credits
Prerequisite: Physical Therapy Roles, Professional Issues I, Health Promotion, Management in Physical Therapy Systems, and Health Care System Analysis

PTHE 0671 Physical Therapy Roles and Professional Issues III
This is the third of three courses facilitating the student’s understanding of the roles of the physical therapist and current professional issues. Supervision and consultation are important practice management expectations of the physical therapist. In this course, students gain practical experience as supervisors and consultants. Independent study methods are used to achieve the course objectives.
1 credit
Prerequisites: Physical Therapy Roles, Professional Issues I and II
PTHE 0679 Applied Management Skills in Physical Therapy
Systems
The ability to analyze health care systems is necessary as a physical therapist enters the work force. Specifically, physical therapists are often called upon to develop and execute a plan to integrate a new product, program, or service into an existing rehabilitation delivery system. This course provides a framework for applying the principles presented in 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, and financial strategies. Students work in small groups to design a strategic plan. Rehabilitation products and services are practical situations, provided by community facilities when applicable and appropriate. In addition, this course continues the investigation of outcome measures. Specific outcome measures and common physical therapy outcome scales are presented. Current studies on rehabilitation treatment outcomes are also discussed and analyzed. Students present an overall strategic plan addressing the seven strategies listed above to the facility administration, faculty, and the class via a written report and an oral presentation. This course utilizes a combination of seminar, discussion, and lecture formats.
3 credits
Prerequisite: Management in Physical Therapy Systems

PTHE 0692 Physical Therapy Interventions V
Physical Therapy Interventions V is the last course in the Physical Therapy Interventions series. Clinical decision-making skills are applied in evaluating different modes of physical therapy interventions. Course content includes practice issues related to home health, women’s issues, and chronic pain. Unique treatment approaches (McKenzie, myofascial release, craniosacral therapy, rolfing, Feldenkrais, serial casting, and splinting/bracing) are examined from the perspective of evidence-based practice. Motor control and movement dysfunction set the foundation for discussion of advanced patient management in persons with progressive neurological disorders and complex chronic neurological conditions. Vestibular deficits are also addressed. Students are expected to research and present the strengths and weaknesses of unique treatment approaches to the class. Each student is expected to critically analyze the merits of the various unique treatment approaches and to describe comprehensive intervention strategies for persons across the health care continuum. A combination of lecture, discussion, laboratory, and student-led formats are used in this course.
3 credits
Prerequisites: Physical Therapy Evaluation I–III, Physical Therapy Interventions I–IV, Cardiopulmonary Evaluation and Treatment

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: Practicum III

ELECTIVES

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 faculty mentor, or complete 1–4 credits of a research elective with a Physical Therapy faculty member.
1-4 credits
Prerequisites: Overall GPA of 3.0 and successful completion of all PT Program courses through the spring quarter of the second year.

FACULTY

Deborah Anderson, PT, MS, PCS
University of Health Sciences/Chicago Medical School
Instructor & Co-Director of Clinical Education

Donna J Cech, PT, MS, PCS
University of Health Sciences/Chicago Medical School
Associate Professor and Program Director

Christine Conroy, PT, MHS
University of Indianapolis
Assistant Professor

**Christian C Evans, PT, PhD**
University of Illinois at Chicago
Associate Professor

**Kathy D Hall, PT, EdD**
Northern Illinois University
Associate Professor

**Timothy A Hanke, PT, PhD**
University of Connecticut
Assistant Professor

**Janet O Helminski, PT, PhD**
Northwestern University
Associate Professor

**Kent Irwin, PT, MS, GCS**
University of Illinois at Chicago
Instructor & Co-Director of Clinical Education

**Sandra J Levi, PT, PhD**
Northwestern University
Associate Professor

**Kathleen P O’Hagan, PhD**
Rutgers University
Professor
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

PROGRAM 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, 27-month, 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 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 contributes 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 patients 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 patients 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 patients 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 patient referrals, performing appropriate patient evaluations, establishing goals and patient outcomes, developing treatment plans, providing appropriate treatments based on these plans and outcomes, re-evaluating the patient and course of therapy, and patient 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 patient 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 patients 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.

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).

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 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. Achieved a cumulative undergraduate grade point average (GPA) of 2.75 on a 4.00 scale;
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, 2003. The Midwestern University institutional code for the GRE is 1769. For more information about the GRE, contact Educational Testing Services (ETS) at 1-800-GRE-CALL or visit www.gre.org;
5. Satisfied the standards set forth by the Admissions Committee (including documentation of academic and professional promise in the prospective student);
6. Completed the OT Program’s interview process. On-campus interviews are by invitation only;
7. Have completed 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 patients and colleagues;
12. Abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy;
13. Pass a criminal background check.

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

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisite</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.

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 admisil@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).

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.

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.

Send all application materials to:
Office of Admissions
Midwestern University
555 31st St.
Downers Grove, IL 60515
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 standardized 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. 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 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. Arrange to have all final college transcripts submitted to the Office of Admissions no later than the date designated in the matriculation agreement.
3. Complete a medical file as requested by the Office of Student Services.
4. Sign and submit Credit Policy Statement.
5. Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
7. Satisfy the Technical Standards for the program.
8. Complete a physical exam and submit form.
9. Complete physical exam and submit form.
10. Submit additional documents as required by the Office of Admissions.
11. Sign Midwestern University Drug-Free Workplace and Substance Abuse Policy.
13. Satisfy the Technical Standards for the program.

If the student either fails to satisfy these matriculation requirements or omits/falsifies information required on
renew its 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.

Time Limit for Completion of Coursework
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.

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. Submit a properly completed and signed graduation clearance form to 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 first calendar year of the professional master’s curriculum is composed of three quarters of coursework consisting of 45 required course credits (quarter hours) including 40 clock hours (one quarter credit hour) of clinical education. The second calendar year of the curriculum is composed of four quarters of coursework consisting of 61 required course credits including 40 clock hours (one quarter credit hour) of clinical education. Faculty-guided and supervised learning opportunities in the community are pivotal learning experiences during this 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 OT Fieldwork II-B of the curriculum, which occur during the summer and fall quarters of the third professional year. 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
Total Quarter Credit Hours Required: 45

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0510 OT Foundations</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0520 Theoretical Constructs I</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0540 OT Analysis I</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0583 Neuroscience I</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0505 Human Conditions I</td>
<td>3.0</td>
</tr>
<tr>
<td>CORE 1399 Health Care Issues</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0502 Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>OTHE 0679 Neuroscience II</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0541 OT Analysis II</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0525 Human Conditions II</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0660 Occupational Roles and Participation</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0550 Fieldwork Foundations I</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.5</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0536 Fieldwork I-A</td>
<td>1.0</td>
</tr>
<tr>
<td>OTHE 0585 Evaluation and Treatment I: Foundations</td>
<td>5.0</td>
</tr>
<tr>
<td>OTHE 0640 OT Analysis III</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0526 Human Conditions III</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0581 Kinesiology</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0629 OT Group Process</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0551 Fieldwork Foundations II</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16.5</strong></td>
</tr>
</tbody>
</table>

Second Professional Year
Total Quarter Credit Hours Required: 61

<table>
<thead>
<tr>
<th>Summer Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0587 Evaluation and Treatment II - Children</td>
<td>5.0</td>
</tr>
<tr>
<td>OTHE 0628 Research I</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0626 Human Conditions IV</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0641 Orthotics I</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0685 Evaluation and Treatment III -Adult</td>
<td>5.0</td>
</tr>
<tr>
<td>OTHE 0630 Research II</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0591 Critical Analysis: Pediatric Practice</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0632 Critical Analysis: Psychosocial Practice</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0642 Orthotics II</td>
<td>2.0</td>
</tr>
<tr>
<td>OTHE 0690 Advanced Seminar: Upper Extremity</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0589 Evaluation and Treatment IV - Seniors</td>
<td>5.0</td>
</tr>
<tr>
<td>OTHE 0631 Research III</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0687 Advanced Seminar: Adults</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0678 Administration &amp; Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0689 Work Rehabilitation &amp; Health Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0552 Fieldwork Foundations III</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17.5</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0635 Fieldwork I-B</td>
<td>1.0</td>
</tr>
<tr>
<td>OTHE 0553 Fieldwork Foundations IV</td>
<td>0.5</td>
</tr>
<tr>
<td>OTHE 0633 Research IV</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0634 Physical Agents</td>
<td>4.0</td>
</tr>
<tr>
<td>OTHE 0620 Theoretical Constructs II</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0694 Program Development</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.5</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Professional Year</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHE 0589 Evaluation and Treatment IV - Seniors</td>
<td>5.0</td>
</tr>
<tr>
<td>OTHE 0631 Research III</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0687 Advanced Seminar: Adults</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0678 Administration &amp; Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0689 Work Rehabilitation &amp; Health Promotion</td>
<td>3.0</td>
</tr>
<tr>
<td>OTHE 0552 Fieldwork Foundations III</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.5</strong></td>
</tr>
</tbody>
</table>

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 health care delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The core course sequence 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

**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 clinical education experiences recently provided, and the outcomes of student participation for Fieldwork levels I and II. This course will further refine the development of student attitudes required to more fully appreciate the subtle, humanistic nuances of the therapeutic process witnessed during fieldwork. 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: 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: 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: 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: 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: 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: 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. Analytical thought, clinical reasoning, logic, and critical thinking are emphasized.
2 credits

OTHE 0633 Research IV
This is the final course in the four-part progression that emphasizes the development and refinement of beginning research skills. Research results from the previous coursework are subjected to descriptive or statistical analysis and integrated with the current literature in occupational therapy practice. Projects ultimately relate theory to practice, and demonstrate synthesis of advanced knowledge in a practice area with recommendations for clinical practice and further inquiry. This course’s outcome is the completion of a manuscript appropriate for publication in a peer-reviewed journal.
3 credits
Prerequisite: 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, the normal and abnormal response of tissue to the application of physical modalities. The safe and effective application of 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: 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 is the second of two courses designed to develop the students’ knowledge base of neuroscience to a level required for clinical practice. It provides further opportunities to apply neuroscience principles as they relate to occupational therapy evaluation and treatment. It also enables a greater appreciation of the neurological impact on the human condition. Throughout the two 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: 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: 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: 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: 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  
Associate Professor and Program Director

**Allyson L Chrystal, MOT, OTR/L**  
Midwestern University College of Health Sciences  
Instructor

**Susanne A Higgins, OTR/L, CHT**  
University of Illinois at Chicago  
Instructor

**Lisa J Knecht-Sabres, MS, OTR/L**  
University of Illinois at Chicago  
Assistant Professor

**Thomas E Laster, MS, OTR/L**  
Indiana University  
Associate Professor

**Dana M Lingle, OTR/L, CHT**  
Eastern Michigan University  
Assistant Professor

**LaVonne St. Amand, MPH, OTR**  
University of Hawaii  
Assistant Professor
MISSION
The mission of the Master of Biomedical Sciences (M.B.S.) degree and 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.

PROGRAM 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. 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 sciences 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 may be completed in as little as 18 months, but must be completed within four years of matriculation, excepting approved leaves of absence. The normal course of study is 21 to 24 months. 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 “fill in gaps” in 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 possess:
1. A bachelor’s degree or higher from a regionally accredited college or university.
2. Minimum cumulative GPA of 2.75 on a 4.0 scale from an undergraduate or higher degree program.
3. Graduate Record Examination general test (GRE) scores must be submitted and be less than five years old. Contact Educational Testing Services (ETS) at 866/473-4373, or visit www.ets.org.
   OR
   MCAT (Medical College Admission Test) scores must be submitted; 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
   DAT (Dental Admission Test); less than five years old. Contact the American Dental Association (ADA) at 312/440-2500 or Web site at www.ada.org.
The Director of the Biomedical Sciences Program. Final

by the Office of Admissions for completeness and referred to

number of seats available. Applications received are reviewed

qualified candidates from an applicant pool that exceeds the

bachelor’s level or higher degree from a regionally accredited

program starting in the Fall Quarter. Admission is considered

the admissions cycle. Students matriculate into the full-time

reviewed and decisions are made at regular intervals during

rolling admissions process. Completed applications are

The Master of Biomedical Sciences Program currently uses a

Selection Process

The Master of Biomedical Sciences Program currently uses a

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.
Candidates for admission to the Master of Biomedical Sciences Program are required to certify that they understand and meet these technical standards. Candidates who may not meet the technical standards are encouraged to contact the Director of Admissions and Master of Biomedical Sciences Program Director to discuss and identify what accommodations, if any, the College and/or program would need to make in order for the candidate to be able to meet the standards.

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 return 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 agreement—the entire deposit is applied toward the student’s first-quarter tuition.
- Arrange to have all final college transcript(s) submitted to the Office of Admissions no later than the date designated in the matriculation agreement.
- Successfully complete all outstanding prerequisites with the grade of a “C,” “C+,” or better. A “C-” will NOT be accepted for any prerequisite course.
- 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 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.

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.

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 Biomedical Sciences program on a per credit basis. Dual degree students shall receive a 30% discount on the usual Biomedical Sciences program per credit hour charge for the full duration of their Master of Biomedical Sciences degree program. Biomedical Sciences program tuition is payable quarterly and determined by the number of credits for which the student is registered.

GRADUATION REQUIREMENTS
To qualify for graduation with a master’s degree from the Biomedical Sciences Program, students must:

7. Follow an approved course of study acceptable to the student’s thesis committee, and complete a master’s thesis project;
8. Satisfactorily complete the required number of quarter hour credit master’s level courses with a 2.75 or higher cumulative grade point average;
9. Pass all required courses;
10. Receive a favorable recommendation from the Biomedical Sciences Program Student Academic Review Committee and the College of Health Sciences Student Promotion and Graduation Committee;
11. Be recommended for conferral of the master’s degree by the University Faculty Senate;
12. Settle all financial accounts with the University; and
13. Submit a properly completed and signed graduation clearance form to the Office of the Registrar.

CURRICULUM

Required Courses: Basic Science
Students must complete any three of the following course combinations:
BIOC 0351 & 0352  Biochemistry I & II
MICR 0476 & 0482  Immunology & Infectious Diseases
PHAR 0461, 0462, and 0463  Pharmacology I, II and III
PHYS 0460 & 0470  Human Physiology I & II

Required Courses: Research and Thesis
BISC 0503  Research Literature Review and Thesis Proposal
BISC 0553  Seminars 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
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

Sample Curriculum:

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>BIOC 0351</td>
<td>Biochemistry I</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>PHYS 0460</td>
<td>Human Physiology I</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>BISC 0512</td>
<td>Fundamentals of Research</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0601</td>
<td>Research Design and Methodology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CORE 1399</td>
<td>Healthcare Issues</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =13.0</td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td>BIOC 0352</td>
<td>Biochemistry II</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>MICR 0476</td>
<td>Immunology</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>PHYS 0470</td>
<td>Human Physiology II</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>BISC 0602</td>
<td>Principles of Biostatistics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =13.0</td>
<td></td>
</tr>
<tr>
<td>Quarter</td>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Spring</td>
<td>BISC 0503</td>
<td>Research Literature Review &amp; Thesis Proposal</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0520</td>
<td>Ethics of Research and Experimentation</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0660</td>
<td>Laboratory Research for Thesis</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0603</td>
<td>Medical Writing</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MICR 0482</td>
<td>Infectious Diseases</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>PSCI 0568</td>
<td>Biotechnology (elective option)</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =17.0</td>
<td></td>
</tr>
<tr>
<td>Summer</td>
<td>BISC 0635</td>
<td>Advanced Topics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0660</td>
<td>Laboratory Research for Thesis</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>PHYS 0637</td>
<td>Exercise Physiology (elective option)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>ANAT 0450</td>
<td>Human Anatomy/Embryology (elective option)</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =16</td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>PHAR 0461</td>
<td>Pharmacology I</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0553</td>
<td>Seminar in the Biomedical Sciences</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0660</td>
<td>Laboratory Research for Thesis</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>PHAR 0534</td>
<td>Pharm. Aspects of Drug Abuse (elective option)</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>PHYS 1654</td>
<td>Obesity (elective option)</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =12</td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td>BISC 0660</td>
<td>Laboratory Research for Thesis</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>PHAR 0462</td>
<td>Pharmacology II</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0635</td>
<td>Advanced Topics</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>PSCI 0557</td>
<td>Alternative Therapies and Natural Products (elective option)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>PHAR 0417</td>
<td>Cardiovascular Pharmacology (elective option)</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =15</td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td>BISC 0680</td>
<td>Thesis</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>BISC 0660</td>
<td>Laboratory Research for Thesis</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quarter Total =7</td>
<td></td>
</tr>
</tbody>
</table>

**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 differentiating commonly occurring disease states likely to be encountered in professional practice. 3 credits

Prerequisites: ANAT 0450, PHYS 0460
**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 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 principles of biochemistry and to the practice of pharmacy. Workshop topics may include antimetabolite 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

**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 0351/0352 or BIOC 0451/0452

**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 0351/0352 or BIOC 0451/0452

**BISC 0451 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, the Good Laboratory Practice (GLP) requirements and regulations of the Food and Drug Administration and Environmental Protection Agency. Additionally, the regulations of the International Organization for Economic Cooperation and Development are discussed. Compliance issues and inspection procedures and implications are covered for organizations involved in product safety testing in animals and the environment. A historical perspective is presented as to the development of regulations and non-traditional safety testing. Students also receive training in radiation 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 Seminars in the Biomedical Sciences**

This course is designed to expose the Master of Biomedical Sciences student to a variety of scientific disciplines and projects. This is accomplished by attendance at the research faculty seminar series. Additionally, the student is expected to present a seminar to the faculty on the subject of his/her choice.

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.

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.

3 credits
Prerequisite: BISC 0512

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

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

MICR 0482 Infectious Diseases
This didactic course covers basic clinical microbiology, pathogenic mechanisms, and antimicrobial agents relating to the understanding, rational management, and control of infectious agents. Additionally, students develop problem-based learning skills through interactive self-study and computer-assisted learning exercises involving case presentations. The course includes laboratory sessions that provide hands-on experience in clinical microbiology laboratory procedures. Students receive instruction on staining techniques, growth requirements, identification criteria, and antibiotic therapy for commonly occurring infectious agents. Students are also introduced to a number of diagnostic tests currently available for rapid diagnosis of infectious disease.

4 credits

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.

1 credit
Prerequisite: Microbiology 0482

CORE 1399 Healthcare Issues
Changes in our healthcare delivery system are creating a growing demand for health professionals with skills in collaboration and teamwork. The core course sequence has been developed as a university-wide effort to provide an orientation and education to all first-year students on general topics related to healthcare. 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
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 purpose of this elective is to provide 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 as well as understanding cultural attitudes, which may impact on the required medical care. Listening, comprehension, and conversational skills will be stressed through dialogues and oral presentations by participating 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 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

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

PHYS 0460/0470 Human Physiology I, II
In this two-quarter series, students are introduced through didactic instruction and clinical case sessions to the basic physiologic principles that underlie the normal function of the various organs and organ systems. These core principles provide the foundation through which the student develops an understanding of the physiologic adaptations and transitions that occur in commonly occurring disease states. Emphasis is given to developing an understanding of health in physiologic terms and an appreciation of the diverse regulatory processes that maintain the homeostasis of the human body. Topics presented include a general study of cell function, properties of excitable cells, and the function of the neuromuscular, cardiovascular, renal, respiratory, digestive, endocrine, and reproductive systems. The cases in human physiology utilize small group clinical case sessions to promote critical thinking, development of problem solving skills, and appropriate clinical application of physiologic concepts and principles. As an active participant in these discussion sessions, the students identify, present, and discuss deviations from the norm as the patient’s history, symptoms, signs, and relevant laboratory findings are reviewed. Medical literature interpretation and case write-ups are included. This component of the course assists in providing a foundation for clinical decision making and diagnosis.
3.5 credits per quarter

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
PHYS 1654 Obesity: Epidemiology, Clinical Assessment, Related Medical Conditions and Treatment
The purpose of this elective is to introduce students in medicine and the biomedical science program to the medical consequences of obesity. The motivation for this course is the current epidemic of obesity and the high probability that most health professionals will have to consider the impact of obesity on the patient’s medical status. The students will be introduced to the epidemiology of obesity, measurement of body composition, physiological regulation of satiety and selected pathophysiological conditions associated with obesity. During the latter part of the elective, 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: PS-II or PS-III Standing or 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: PS-III standing or 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: PS-III Standing or 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: PS-II or PS-III Standing or 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 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

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
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, ranging 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 or Instructor Approval

**FACULTY**

**Michael J Fay, PhD**
University of Mississippi
Associate Professor and Program Director
COLLEGE OF HEALTH SCIENCES

CLINICAL PSYCHOLOGY PROGRAM

MISSION
The Midwestern University Doctor of Psychology (Psy.D.)/Master of Arts (M.A.) in 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.

PROGRAM PHILOSOPHY
The Doctor of Psychology/Master of Arts 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.

PROGRAM OBJECTIVES
The Doctor of Psychology/Master of Arts 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. 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 are practicing as clinicians, educators, supervisors, and administrators at many facilities throughout the State of Illinois.

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
164

accreditation and an APA accreditation site visit was
completed in the spring of 2007. Accreditation information
can be obtained from the Committee on Accreditation of the
American Psychological Association, 750 First Street NE;
Washington, DC 20002-4242. Phone: 202-336-5979;
TDD/TTY: 202-336-6123. Web Site:

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 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 2.75 on a 4.0
scale.
3. Complete 18 semester hours in psychology, including:
   • Introductory/General Psychology
   • Human Growth & Development or Personality
     Theory
   • Abnormal Psychology
   • Statistics or Tests and Measurements
4. Submit Graduate Records Examination (GRE) general
test scores; the test must have been taken no earlier than
January 1, 2003. The Midwestern University institution
code for the GRE is 1769. For more information about
the GRE, contact Educational Testing Services (ETS) at
800/GRE-CALL or visit www.gre.org. Or you may
substitute MCAT, GMAT, LSAT, PCAT or Miller’s
Analogies Test.
5. Reflect a people/service orientation through community
   service or extracurricular activities.
6. Reflect proper motivation for and commitment to health
care as demonstrated by previous work, volunteer, or
other life experiences.
7. Possess the oral and written communication skills
   necessary to interact with patients and colleagues.
8. Abide by Midwestern University’s Drug-Free Workplace
   and Substance Abuse Policy;

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 must 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
admissil@midwestern.edu;
2. A nonrefundable, nonwaivable application fee of $50;
3. Two properly signed and sealed letters of
   recommendation from professionals who know you well
   (teachers, advisors, professional colleagues or
   supervisors);
4. Personal statement reflecting your 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

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.

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 interviews, 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/Master of
Arts 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.

Application Deadlines
Admissions decisions will be made on a rolling basis. You are
advised to complete your application file as early as possible
to ensure timely consideration.

Technical Standards
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/Master of Arts Program of the College. 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. Arrange to have all final college transcript(s) submitted to the Office of Admissions no later than the date designated in the matriculation agreement.

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. Provide documentation verifying that sufficient funds have been deposited in a U.S. bank to cover all expenses while attending CHS (for non-U.S. citizens/nonpermanent residents only).

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.
PROGRAM REQUIREMENTS
The Psy.D. Program is designed to be completed in four to five years. Full-time students will complete three years of coursework, clerkship, and practicum experiences. This is followed by a one-year internship and the satisfactory completion of a clinical dissertation. Some evening courses may be scheduled.

MASTER OF ARTS IN CLINICAL PSYCHOLOGY DEGREE
Currently students are only admitted into the Psy.D. Program. Doctoral students may elect to earn a M.A. degree while pursuing the Psy.D. degree after completion of the first two years of coursework, clerkship, and practicum experiences. Students must also register for Psy 681 Master’s Thesis.

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. The M.A. degree is awarded if the following are fulfilled:

- Petition to the program for the awarding of the M.A. degree;
- Satisfactory completion of 102 credit hours including all required 500 and 600 level nonclinical and clinical core courses, and clerkships;
- Satisfactory completion of required practicum experiences;
- Attainment of a cumulative grade point average of 2.75 or higher;
- Successful completion and defense of clinical master’s thesis;
- Full payment of all outstanding tuition and fees; and
- Faculty and committee approval for awarding of the degree

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.

SATISFACTORY PROGRESS
Once students have been 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, the Clinical Psychology Program Academic Review Committee conducts the evaluation of student progress at the conclusion of each quarter. Students are provided written and oral feedback about their progress.

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.

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
Director of Training assists students in the application periods, and during breaks in the academic calendar. The practicum may require work in the summer months, over holiday therapy practicum in the third year. Practicum placements include 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. The Director of Training assists students in the application process for practicum placement.

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 no exceptions are permitted.

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. Students must satisfactorily complete all required coursework and practicum experiences in the first two years of study before beginning the internship. The internship may or may not be a paid position.

Clinical Dissertation
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 to complete the clinical dissertation must register for dissertation continuation, a zero credit course.

Health Psychology Electives
The Psy.D. Program has a very intensive schedule of 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 the areas related to Health Psychology. Elective options are offered through the program and in 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 format. Courses taken in an independent format require approval of the Program Director and a faculty member who would direct the independent study.

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.

Graduation Requirements
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. Students must show satisfactory completion of 208-quarter hours of credit consisting of the required courses (123 credits), practicum (9 credits), advanced practicum (9 credits), practicum seminars (3 credits), advanced practicum seminars (3 credits), Interdisciplinary Core Course (1 credit), clerkship (2 credits), Clinical Dissertation (8 credits), and internship (50 credits).
2. Students must successfully complete the Interdisciplinary Healthcare Core Course;
3. Attainment of a cumulative grade point average of 2.75 or higher;
4. Satisfactory completion of the diagnostic and therapy practicum experiences;
5. Satisfactory completion of the written Qualifying Examination;
6. Satisfactory completion of an approved one-year internship (2,000 work hours);
7. Satisfactory completion of a clinical dissertation including a successful oral defense and the submission of a copy for binding; and
8. Full payment of all outstanding tuition and fees.

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.

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.

Internship Match Rate: The program has had a 100% placement rate with the percentage of students who obtained paid internships (2006-100%; 2007-81.5%); APPIC internships (2006-100%; 2007-87.5%); and APA internships (2006-37.5%; 2007-0%). No students applied for two-year internships.

Cost: Tuition = $21,462 (At the current rate, program tuition is projected to be $85,898)

Attrition: The number and percentage of students in the first class who have failed to complete the program once matriculated has been zero.

Licensure: Not applicable at this time.

CURRICULUM
Typical Schedule

YEAR 1
Fall Quarter
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
CORE 1399  Health Care Issues  1

Winter Quarter
PSYC 510  Statistics  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

Spring Quarter
PSYC 503  Life Span Developmental II  3
PSYC 526  Personality Assessment  3
PSYC 527  Personality Assessment II: Projectives  2
PSYC 554  Social and Cultural Bases of Behavior  3
PSYC 550  Biological Bases of Behavior  3
PSYC 572  Psychopathology II: Anxiety and Personality Disorders  3
PSYC 582  Clerkship  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
PSYC 683  Practicum Seminar  1

Winter Quarter
PSYC 539  Counseling Modalities and Chemical Dependency  2
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
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 665  Professional Writing  1
PSYC 680  Research Seminar  2
PSYC 682  Practicum  3
PSYC 683  Practicum Seminar  1
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
- **PSYC 783** Advanced Practicum Seminar 1

#### Winter Quarter
- **PSYC 538** Theories of Vocational Counseling 2
- **PSYC 540** History and Systems 3
- **PSYC 601** Advanced Professional Development 1
- **PSYC 740** Advanced Issues in Substance Abuse 3
- **PSYC 771** Advanced Psychopathology 3
- **PSYC 735** Crisis Intervention 3
- **PSYC 780** Clinical Dissertation Development 1
- **PSYC 782** Advanced Practicum 3
- **PSYC 783** Advanced Practicum Seminar 1

#### Spring Quarter
- **PSYC 576** Comorbid Medical and Psychiatric Problems 3
- **PSYC 637** Career Guidance and Counseling 2
- **PSYC 711** Advanced Statistics 3
- **PSYC 750** Advanced Psychopharmacology 3
- **PSYC 781** Clinical Dissertation Seminar 1
- **PSYC 782** Advanced Practicum 3
- **PSYC 783** Advanced Practicum Seminar 1

### YEAR 4
- **PSYC 800** Internship 12.5
- **PSYC 810** Clinical Dissertation 2.0

Note: The MWU/CHS Clinical Psychology 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 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 healthcare. 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

**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 APA 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. Also included is an examination of the major developmental disorders. Other 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

**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
PSYC 514 Research Methods and Design
This course is a survey of the methods used in empirical clinical research, program evaluation, and clinical outcomes 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 and prediction designed for students in the clinical psychology program. The course focuses on the measurement of behavior, affect, achievement, relationships, attitudes, traits, and self-concept that are appropriate in clinical practice. The course prepares students to effectively evaluate different psychological tests and to select tests for particular referral questions and special populations. 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

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

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

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

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

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
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.
2 credits

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.
2 credits

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

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 rehab.
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 and psychiatric disorders in the elderly, neuropsychological disorders in later life, and assessment procedures in older adults.
3 credits

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

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

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

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 developmental 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

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

PSYC 575 Psychiatric Rehabilitation
This course examines the neuropsychiatric and neurobehavioral disorders in the practice of clinical 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, aphasia, seizure disorders, arteriovenous malformations, and neurotoxic disorders.

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, PSYC 572

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 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

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 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
Prerequisite: PSYC 554

PSYC 620 Advanced Assessment
This course concentrates on the development of skills needed in the interpretation 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. Students are expected to continue development of skills in formulating diagnostic conclusions, clinical report writing, research report writing, and examination of differential diagnoses. The importance of incorporating biopsychosocial factors is discussed.

3 credits
Prerequisites: PSYC 520, PSYC 524, PSYC 526.

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, PSYC 560

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
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

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, PSYC 560.

PSYC 637 Career Guidance and Counseling
This course focuses on the significant aspects of how counseling techniques are used in the process of career formation and guidance. Procedures for effective counseling techniques are reviewed. The use of decision trees, career counseling checklists, and multicultural career counseling issues will be discussed.
2 credits
Prerequisite: PSYC 538

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
Prerequisite: PSYC 503, PSYC 540.

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 550

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. This course is offered through the Pharmacology Department.
3 credits
Prerequisite: PSYC 550

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 and discussed within the context of relevant cultural, gender, and ethnic factors.
2 credits
Prerequisite: PSYC 520

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.
2 credits
Prerequisite: PSYC 554

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.
2 credits
Prerequisite: PSYC 530

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. This course is offered in the Occupational Therapy Program.
3 credits
Prerequisite: PSYC 530, PSYC 550

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 550

**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.

1 credit
Prerequisite: PSYC 650

**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

**PSYC 665 Professional Writing**
This course introduces the student to the basic foundations of professional writing including the use of the APA style of writing. The course examines several applications of writing style to such diverse activities as research report writing, clinical chart documentation, SOAP charting, and psychodiagnostic report writing.

1 credit
Prerequisite: PSYC 520

**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. Use of case studies introduces 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

**PSYC 678: Directed Readings in Clinical Psychology**
This course permits extensive exploration of an approved topic in clinical psychology. With the consultation of a program faculty member, a reading list is developed around a relevant issue. The readings focus on the interchange between theory, research, diversity issues, and clinical practice.

1-3 credits (repeatable)
Prerequisite: Approval of Program Director.

**PSYC 680 Research Seminar**
This course provides supervision for the student in the development and analysis of student-run research. The faculty advisor provides the student with direction in the formulation of the research question, research design, analysis, and write-up.

2 credits
Prerequisites: PSYC 510, PSYC 514

**PSYC 681 Master Thesis**
Students who request the awarding of a master’s degree following completion of the first two years of the curriculum must register for this course when completing the clinical thesis.

1 credit
Prerequisite: Approval of Program Director

**PSYC 682 Practicum**
This course is designed to provide the practical experiences in psychodiagnostics and psychotherapeutics that are appropriate for the training of practitioners in the human services.

3-9 credits (repeatable)
Prerequisite: Approval of Director of Training

**PSYC 683 Practicum Seminar**
Students come together from various 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: 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.

3 credits
Prerequisite: PSYC 501

**PSYC 711 Advanced Statistics**
This course focuses on clinical research with emphasis on research design and multivariate analysis. Particular attention is given to the application of research methodology, and psychometric issues regarding theory and practice.

3 credits
Prerequisites: PSYC 510, PSYC 514
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 factors. Case
management and ongoing evaluation are discussed.
3 credits
Prerequisite: PSYC 530

PSYC 731 Supervision and Consultation
This course examines the consultative process and reviews the
pertinent theories and practice models for supervision and
consultation in a variety of employment settings.
1 credit
Prerequisite: PSYC 520

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 530

PSYC 740 Advanced Issues in Substance Abuse
This course provides an overview of chemical dependence
and other addictive behaviors. Major theories of etiology,
dynamics, and psychopathology of substance abuse are
presented. Assessment, treatment, and case management are
explored within the biopsychosocial perspective.
3 credits
Prerequisite: PSYC 539

PSYC 750 Advanced Psychopharmacology
This seminar-based 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.
3 credits
Prerequisites: PSYC 651

PSYC 771 Advanced Psychopathology
This course focuses on the clinical manifestations of
psychopathology of the major clinical entities of children,
adolescents, and adults as identified in the research record.
The course will examine the major differences seen among
cultural groups, gender, and persons with disabilities. The
wide range of Diagnostic and Statistical Manual disorders
will be reviewed in the context of current research outcomes.
3 credits
Prerequisite: PSYC 670

PSYC 775: Advanced Independent Study
This course permits the student to pursue individualized
study in a relevant area of clinical psychology under the
direct supervision of program faculty. A study plan is
developed in consultation with program faculty and with the
approval of the Program Director.
1-3 credits (repeatable)
Prerequisite: Approval of Program Director

PSYC 780 Clinical Dissertation Development
This course focuses on the development of a research project.
It will assist the student with exploring an area of interest and
developing that idea into a formalized dissertation proposal.
Students will be able to utilize the seminar-based process to
receive consultation from the instructor as well as class members.
1 credit
Prerequisite: 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.
Other aspects of the dissertation (Review of the Literature,
etc.) are also reviewed.
1 credit
Prerequisite: PSYC 780

PSYC 782 Advanced Practicum
This practicum experience offers the opportunity to enhance
the student’s skills in a particular area of interest. Completion
of assessment and therapy practica are prerequisites.
3-9 credits (repeatable)
Prerequisite: Approval of Director of Training

PSYC 783 Advanced Practicum Seminar
This seminar reviews the progress of students enrolled in the
advanced practicum. Students meet on campus to discuss
training experiences.
1 credit (repeatable)
Prerequisite: Approval of Director of Training

PSYC 800 Internship
The internship is a 12-24 month commitment (2,000 hours)
that is designed to provide an intensive clinical experience
expanding upon the required didactic and the practicum
experiences.
12.5 credits each quarter (50 total credit hours)
Prerequisites: Successful completion of Qualifying
Examination and all required coursework plus Approval of
Director of Training

175
PSYC 810 Clinical Dissertation
Completion of clinical dissertation during fourth year of program.
2 credits each quarter (8 total credit hours)
Prerequisite: PSYC 781 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 800 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 and Approval of Program Director

Health Psychology Electives

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 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, PSYC 572

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, PSYC 540

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. This course is offered through the Pharmacological Department.
3 credits
Prerequisite: PSYC 550

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. This course is offered in the Occupational Therapy Program.
3 credits
Prerequisite: PSYC 530, PSYC 550
FACULTY

Wendell W Carpenter, PhD
Illinois Institute of Technology
Clinical Associate Professor

Robert Craig, PhD
Illinois Institute of Technology
Adjunct Professor

Karen E Farrell, PsyD
Illinois School of Professional Psychology
Professor and Director of Training

John Galik, PhD
Northwestern University
Adjunct Clinical Assistant Professor

Tiffany L Keller, PsyD
Illinois School of Professional Psychology, Argosy University
Adjunct Instructor

Michelle M Lee, PhD
Case Western Reserve University
Associate Professor

Jeffrey P Maney, PhD
Northern Illinois University
Adjunct Assistant Professor

Michelle M Mauro, PsyD
Illinois School of Professional Psychology
Adjunct Instructor

Timothy D McManus, PsyD
Illinois School of Professional Psychology
Adjunct Assistant Professor

Richard C Ney, PhD
Loyola University of Chicago
Professor

Pierre R Nunez, PhD
Northwestern University
Adjunct Assistant Professor

Charles E Payne, OFM, PhD
Northwestern University
Adjunct Clinical Assistant Professor

Patricia Pimental, PsyD, ABPN, FACPN
Chicago School of Professional Psychology
Adjunct Associate Professor

Frank J Prerost, PhD
DePaul University
Professor and Program Director

Sheila C Rao, DO
Chicago College of Osteopathic Medicine
Adjunct Clinical Instructor

Samuel Rest, PhD
California School of Professional Psychology
Adjunct Assistant Professor

Mario M Robbins, DO
Michigan State University
Adjunct Clinical Instructor

Ann M Sauer, PhD
Loyola University of Chicago
Assistant Professor

Theresa Schultz, Ph.D.
University of Illinois at Chicago
Adjunct Assistant Professor

Diana J Semmelhack, PsyD
Illinois School of Professional Psychology
Assistant Professor

Alex J Spadoni, MD
Loyola University Stritch School of Medicine
Adjunct Clinical Professor

Gloria M Workman, PhD
DePaul University
Associate Professor

Shahnour Yaylayan, MD
American University of Beirut, Medical Center
Adjunct Clinical Assistant Professor