YOU ALWAYS WANTED [TO MAKE A DIFFERENCE]

WE’LL BUILD YOUR FUTURE.

CATALOG 2014-2015
GLENDALE, ARIZONA CAMPUS

MIDWESTERN UNIVERSITY
Educating Tomorrow’s Healthcare Team
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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, disability, status as a veteran, age, or marital status.

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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

Glendale Campus
19555 North 59th Avenue
Glendale, Arizona 85308
(880) 247-9277
(623) 572-3215
E-mail: admissaz@midwestern.edu
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I welcome you to our Glendale Campus and your new academic community. The students of Midwestern University represent a dynamic group of individuals who share a passion for learning, a personal drive that prepares them for a long and successful professional healthcare career, and a commitment to excellence. Midwestern University is a special place and our students are active participants within the campus and external community.

It is our philosophy that students learn within our team environment by studying and sharing experiences with 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 dedicated 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 healthcare professional who has the skills, ability, and leadership to meet the changing demands of healthcare. I am proud to say that our students and alumni reflect the positive human values we believe are essential within the changing healthcare environment in order to make a significant contribution to society. Our students care about their patients as well as their colleagues and families.

Midwestern University provides you with dedicated faculty who excel in teaching, research, and service 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 Arizona College of Osteopathic Medicine, the College of Pharmacy-Glendale, the College of Health Sciences, the College of Dental Medicine-Arizona, the Arizona College of Optometry, or the College of Veterinary Medicine, 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 Glendale Campus of Midwestern University to be intellectually challenging and personally rewarding.

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

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

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

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

**HISTORY**  
*Midwestern University: A Legacy of Growth and Development*

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

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

Today Midwestern University is still governed by the strong principles of the founding administration and faculty. We are an independent, not-for-profit corporation organized primarily to provide 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 healthcare 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, the College of Health Sciences (CHS) began in 1992, and the College of Dental Medicine (CDMI) in 2009. In 1993, the Board of Trustees unanimously approved a single, educational mission for the institution, and Midwestern University emerged. Today the Downers Grove Campus, located on 105 acres, has 20 buildings that include academic classrooms, laboratories, a state-of-the-art library and auditorium building, science building, student commons, recreation center, and student housing. The University also opened the MWU Medical Campus in Spring 2013.

The Glendale, Arizona, Campus was founded in 1995 when the Board of Trustees approved the purchase of land and the building of this new campus. The Arizona College of Osteopathic Medicine (AZCOM) began in 1995, the College of Health Sciences in 1996, the College of Pharmacy-Glendale (CPG) in 1998, the College of Dental Medicine (CDMA) in 2006, the Arizona College of Optometry (AZCOPT) in 2008, and the College of Veterinary Medicine in 2012. 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 35 buildings that provide for academic classrooms, state-of-the-art laboratories, student commons, auditorium, recreation center, student housing, a Multispecialty Clinic, and the Dental and Eye Institutes.

Midwestern University has developed strong partnerships with healthcare providers and facilities around the country to aid in the education of students in all of its academic programs. The history of the institution is reflected in the many alumni who have successful careers and a deep affection for their college and University. The Administration and the Board of Trustees are dedicated to fulfilling our mission of excellence and service. We remain committed to our tradition of providing quality health care education. We are educating tomorrow’s healthcare team.

**ACCRREDITATION**

Midwestern University is accredited by The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools (230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413; 800/621-7440; www.higherlearningcommission.org).

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

**CONFERRAL OF DEGREES**

The State of Arizona Board of Private Postsecondary Education has approved all current degree programs at Midwestern University’s Glendale campus. All degrees are conferred by the authority granted by this Board.

**EQUAL OPPORTUNITIES FOR ALL**

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

**FACILITIES**

The 145-acre Glendale Campus boasts a scenic location situated 15 miles outside of downtown Phoenix. The new and attractive facilities on the campus include:

- The 64,000-square-foot Sahuaro Hall houses the library, computer rooms, and lecture halls.
- Cholla Hall has two lecture auditoria, modern laboratories, multiuse classrooms, a computer workshop, and faculty offices.
- The Barrel Student Center includes three buildings that feature the Stagecoach Dining Hall, a weight room, a big screen TV with theater seating, pool and ping pong tables, and administrative offices.
- Midwestern University Multispecialty Clinic, includes family medicine, osteopathic manipulative medicine, podiatry, clinical psychology, and pharmacy services.
- Midwestern University Dental Institute and Eye Institute provide health services to the community and clinical training for our students.
- The Foothills Science Center houses research laboratories for faculty and students, an animal facility, and shared equipment rooms.
- Ocotillo Hall provides classrooms, laboratories, and a large auditorium.
- Agave Hall features classrooms, the OMM laboratory, the gross laboratory, and faculty offices.
- Cactus Club House is for on-campus housing students and for special events, offering a large meeting area with amenities such as a kitchen; big-screen TV; pool, ping pong, and foosball tables; smaller group study areas; as well as separate patio areas.
- A Recreation and Wellness Hall featuring gymnasium, music and craft rooms, yoga/pilates classroom, student housing, a Multispecialty Clinic, and the Dental and Eye Institutes.

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- A Recreation and Wellness Hall featuring gymnasium, music and craft rooms, yoga/pilates classroom, student housing, a Multispecialty Clinic, and the Dental and Eye Institutes.
room, handball courts, exercise equipment and showers/locker rooms.

- Glendale Hall, featuring classrooms, a dental simulation lab, other educational and research labs and faculty offices.
- A large classroom/auditorium that seats 2,600 people for special campus events and can be divided into five lecture halls.
- The Interfaith Chapel offers a quiet place for personal reflection, student religious organizations, and special campus events.
- A 109,000 square-foot veterinary teaching clinic and a 78,000 square-foot academic building will be completed by fall 2014. Midwestern University will also complete a 70,000 square-foot large animal teaching facility by January 2015.

**Housing**

*Student Apartment Complex*

The apartment complex consists of studios and one- and two-bedroom apartments that feature ample study and living space; kitchen with range, oven, and refrigerator; wireless Internet; and cable television. The complex also has a swimming pool, volleyball court, sand play area for children, picnic and barbecue areas for residents and their guests.

For further information regarding on campus housing on the Glendale Campus, students may contact the Director of Residence Life at 623/572-3848 or the Office of Student Services at 623/572-3210.

**Americans With Disabilities Act Policy**

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

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

**Criminal Background Checks**

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

It is the policy of Midwestern University that all accepted students must submit to a criminal background check prior to matriculation. In addition, students who remain enrolled must submit to a criminal background check as needed to remain eligible for continued participation and/or to participate in clinical rotations. 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. Some students in other programs may also be required to undergo fingerprinting.

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

1. All matriculating students must complete the Criminal Background Release and Consent Form to conduct the criminal background check. All newly admitted students who have submitted a matriculation deposit are provided with access to a copy of the University policy and the Criminal Background Release and Consent Form. By going to the Midwestern University website (http://www.midwestern.edu) and selecting MWUNET, the student can find the Student Handbook and consent form.

2. The Office of Student Services will contract with a professional service to conduct the criminal background check.

3. The Dean of Students will review all criminal background reports and determine whether or not a misdemeanor or felony conviction record exists. If a felony or misdemeanor conviction exists, the Dean of Students will conduct a criminal background
investigation. The investigation may include any of the following components:

a. Request for additional detailed information about the positive criminal background check report. This may entail one or more meetings with the student.

b. Collection of additional data, e.g., Federal Bureau of Investigation fingerprints and report, concerning the positive criminal background check report.

Following the criminal background investigation, the Dean of Students, in consultation with the College Dean (or their designee), will determine whether or not the student should be disqualified from matriculation or continued enrollment. Criminal convictions will not automatically disqualify a student from enrollment or continued enrollment. The University will consider such factors as (but not limited to) the nature of the crime, the age of the individual at the time the crime was committed, length of time since the conviction, the nature of the clinical program and the relatedness of the conviction, and whether the University will be able to provide appropriate professional clinical training to the student.

4. Failure to disclose a conviction or material misrepresentation of information by an incoming or enrolled student is deemed to be falsification of the application and may result in denial of admission, matriculation and/or dismissal from the program and University. Students must disclose any misdemeanor or felony charge/conviction.

5. Failure of the student to present appropriate forms to the Office of Student Services for the purpose of conducting criminal background checks when requested will bar the student from initial matriculation and/or continued enrollment.

6. Students with a positive criminal background check are individually responsible for checking the licensing and certification requirements in any state other than the home state of their college 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 College 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 charges/convictions. In such cases, the University confidentially shares information about the student’s positive criminal background history with potential preceptors and practice site representatives as necessary and on a need-to-know basis. This may include releasing a copy of the original Criminal Background Check report for their review. This gives the preceptor and site representatives an opportunity to decide whether the student is acceptable to the site. For this reason, scheduling and completion of practical training/rotations and graduation may be delayed. In some instances, it will not be possible to arrange for practical training/rotations at specific sites.

a. If this information is known by the University prior to the student’s matriculation, the Dean of Students and/or College Dean (or their designee) will meet with the potential student to discuss the consequences of the positive criminal background investigation on the student’s ability to complete degree requirements so that appropriate action can be taken.

b. If this information is known by the University after the student’s matriculation, the Dean of Students and/or College Dean (or their designee) will meet with the student to discuss the consequences of the positive criminal background investigation on the student’s ability to start/resume practical training/rotations and the student’s ability to graduate so that appropriate action can be taken.

9. Records concerning a student’s positive criminal background check are stored in a confidential file in the Office of Student Services and Office of the College Dean.

10. In the event that a student is assigned to a practical training/rotation site that requires a copy of the original Criminal Background Check report prior to a student’s placement at the site, the student’s criminal background check report and cover letter will be scanned into an encrypted password protected PDF file. The encrypted PDF file will be forwarded via email to the rotation site coordinator.

HARASSMENT/HOSTILE WORKING ENVIRONMENT

Midwestern University ("MWU") believes in the dignity and worth of its students, faculty, staff, Interns, and Residents and prohibits conduct or behavior, which 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 based on a person’s legally protected status.

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 or visual) 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.

**Harassment Defined:** Harassment is offensive and unwelcome behavior that interferes with the work performance and effectiveness of an employee. It includes inappropriate and disrespectful conduct and communication. Harassment can take the form of, but is not limited to, the following:

- **Verbal:** For example, epithets, derogatory jokes or comments, slurs or unwanted sexual advances, invitations or comments.
- **Visual:** For example, derogatory and/or sexually-oriented posters, photography, e-mails, cartoons, drawings or gestures.
- **Physical:** For example, assault, unwanted touching, blocking normal movement or interfering with work.
- **Quid Pro Quo:** Explicit or implicit demands to submit to sexual requests in order for an employee to keep his or her job, or to avoid some other loss, and offers of employment benefits in return for sexual favors.
- **Retaliation:** Actions of revenge, directed toward one who had reported or threatened to report harassment.
- **Teasing and/or negative stereotyping:** Derogatory actions or comments; based on another person’s protected status.

The policies and procedures relating to Harassment/Hostile Working Environment are available in the Student Handbook (http://mwunet.midwestern.edu/administrative/SS/ssStuHA NDBOOK.htm).

**ACADEMIC POLICIES**

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

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

**Attendance**

The policy for class attendance is determined by each faculty, department/division and/or College. Students should refer to their course syllabus or to the college-specific section of the University Catalog for additional attendance requirements. Students are expected to satisfy these attendance requirements in order to receive course credit.

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

**Class Rank**

Class rank is calculated annually on July 1 for continuing students and one month before the official program/college graduation date for graduating students. Class rank may be accessed through the student’s personal page at http://online.midwestern.edu/.

**Classroom Visitation**

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

**Classroom/Exam Etiquette**

In order to maintain an appropriate classroom/exam environment that is most conducive to teaching, learning, and performing one’s best on exams, students are expected to behave in a manner that is not disruptive or disrespectful to any person and that does not adversely affect teaching, learning, or examination performance of any person. If cell phones and pagers need to be turned on during classroom time, then they must be set to the vibrate mode. All calls must be made/received outside of the classroom as this type of activity is disruptive to the teaching/learning environment and is disrespectful to others in the classroom. Students who do not abide by this policy may be asked to leave the
course credit. The Curriculum Committee of the College approves the number of credit hours for all courses including those utilizing alternative delivery methods. The determination/assignment of credit hours should reflect the overall educational content of the course and the academically engaged time required to achieve the desired outcome for the typical student. Academically engaged time may be measured by the type, quantity and required level of mastery of the course content.

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

Enrolled MWU students are charged 50% of the tuition costs to audit a course.

GRADE APPEALS POLICY
Appeal of Non-Failing Course Grades
A student who wishes to appeal a non-failing course grade must make the appeal to the course director within one week following 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. 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.

Appeal of Course Grades Subject to Academic Review
A student whose academic progress will be subject to review by his/her Promotion/Academic Review Committee and who wishes to appeal a grade must do so in an expedited manner prior to the scheduled meeting of the Committee. In this case, an appeal of a didactic course grade must be submitted within 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. An appeal of a failing clinical clerkship or rotation grade must be submitted within one week after a grade for rotation is posted. The course director must act on this appeal within one week of receipt of the grade appeal. Any appeal of this decision will be addressed by the course director’s
supervisor. The student is responsible for notifying the chair of the Promotion/Academic Review Committee that a grade appeal has been filed prior to the meeting of the Committee.

All appeals and decisions must be communicated in written form.

**Graduation Walk-Through Policy**
A walk-through candidate is defined as a student who has not satisfied academic requirements for a particular degree, but will complete all academic requirements for the degree within one quarter immediately following the official scheduled end of the academic program for his/her class.

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

1. College faculty approve the lists by delegating this function to the college/program’s Academic Review or Promotions Committee.
2. The Academic Committee of the Midwestern University Board of Trustees is responsible for reviewing and approving the list before the list is presented to the Board of Trustees.

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

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

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

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

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

**Last Day to Add/Drop Classes**
The last day that a student may add a class is the first Friday of the quarter. The last day that a student may drop a course without impact to the transcript is the first Friday of the quarter. For all courses to be added/dropped a student must complete a course add/drop form. A course add/drop form can be obtained from the Office of the Dean or on-line at http://online.midwestern.edu. To add/drop a course a student must have the following approvals.

**CDMI/CDMA/CCOM/AZCOM:** Dean for all core course drops; course director for all elective add/drops

**AZCOPT/CCP/CPG:** Dean and course director for all core and elective course add/drops

**CHS:** Program Director for all core and elective course add/drops

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

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

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

1. Make an appointment with the College Dean to discuss the leave of absence;
2. A student must provide written notification and documentation, if applicable, to the Dean stating the reason for the leave of absence from MWU. If approved, the Dean will conditionally approve a leave of absence until all clearances are obtained.
3. The student must receive clearance of his/her leave of absence from the MWU departments on the online.midwestern.edu leave system within seven calendar days from the date of the Dean’s approval. This time frame will allow offices such as Student Financial Services and the Registrar to process the leave of absence, prepare the required financial aid exit, and calculate the return of unearned Federal Title IV aid and all other aid, as appropriate.
4. Upon submission of all completed documentation and adherence to all clearance procedures, the Dean will provide an official letter granting a leave of absence to the student.
The student is withdrawn from all courses if the leave of absence is granted in the midst of an academic quarter. In this case, the Department Chairs/Program Director/course directors receive an automated electronic notification of the student’s withdrawal. A grade of “W” (Withdrawal) or “WF” (Withdrawal/Failing) appears on the official transcript. Students on the approved leave are obligated to pay their premium for long-term disability insurance.

All leaves of absence are granted for specific periods of time. Typically, a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. At a minimum of thirty days prior to the end of the leave period, the student is required to submit written notification to the Dean and Registrar of an intention to return. If the leave of absence was granted for medical reasons, a letter must be provided to the Dean from the treating physician verifying that the student is both physically and mentally capable of resuming the academic program prior to registering for classes. To request an extension of a leave of absence, a student must resubmit another application as described above. If an individual fails to return to MWU at the agreed-upon date, the student is considered to have withdrawn from the University and must reapply for admission. Leaves of absence can only be initiated through the Office of the Dean.

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

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

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

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

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

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

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

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

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

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

Registrar
The Registrar maintains, prepares, and verifies all academic records, grades, and transcripts. The main number of the Office of the Registrar is 630/515-6074 (Downers Grove Campus) and 623/572-3325 (Glendale Campus). Registrar services can be accessed at http://online.midwestern.edu.

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

Retake
A retake may be offered when formal repetition of an entire course or a portion of the course is required due to course failure, or in some programs when a "D" letter grade has been earned. A course may be retaken when any of the following occur:

1. No reexamination is offered by the department.
2. The student has failed the reexamination.

3. The student fails to meet eligibility criteria for reexamination, if offered by the course director.

It is the decision of the Student Promotion and Graduation/Preclinical Promotions/Clinical Promotions/Academic Review Committee of each college/school/program to recommend a retake of a course. The committee, following department approval, will determine the nature of the retake and the timeframe for completion of the repeated course. The course may be repeated at MWU or at an outside institution, if offered. The options for repeating a course at MWU may include any format, not limited to, a directed readings remedial course with examination, to repeating the course in its entirety the next academic year. In either case, the student must be registered for the course and will be charged the appropriate tuition. The maximum allowable grade that can be earned as a course retake is determined by college policy.

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

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

Transcripts and Duplicate Diplomas
The University releases transcripts and duplicate diplomas upon receipt of a request from a student or graduate. All requests should be submitted through http://online.midwestern.edu.

1. No phone requests are honored.
2. Allow one week for processing.
3. There is no charge for a transcript release for MWU students prior to graduation; however, graduates and transferring students are required to pay $5.00 per official transcript release.
4. Individuals who are no longer students at MWU are charged $5.00.
5. Transcripts and diplomas will not be issued for any student with a past-due account balance with MWU or the MWU Clinics.
6. Transcripts and diplomas will not be issued for any student or alumnus who has not completed a financial aid exit interview, if aid was borrowed while attending MWU.
A graduate can request a duplicate diploma by writing to the Registrar. The charge for a duplicate diploma is $50.00 paid in advance.

**Travel and Lodging for Clinical Education/Fieldwork**

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

**WITHDRAWAL**

**Withdrawal from One or More Courses**

Any student who wishes to withdraw from one or more courses must first receive approval from their respective course directors. Following approval by the course directors, the withdrawal must be approved by the Program Director, if applicable, and by the College Dean. The student must complete a course add/drop form, which can be obtained from the Office of the Dean or the Registrar’s website. If approval is granted, the student receives one of the following grades: "W" (Withdrawal), "WF" (Withdrawal/Failing), or "F" (Failing). A course dropped by the first Friday of the course will not appear on the student’s transcript. A course dropped after week one through completion of 50% of the course will receive a "W". A course dropped after 50% and up to 80% of the course is completed will receive a "WF" if the student has a passing average in the course at the time of withdrawal or a "W" if the student has a failing average in the course at the time of withdrawal. A "WF" may be considered as a failure by an Academic Review/Promotion Committee. An "F" grade can also be given if a student withdraws after 80% of a course is completed and the student has a failing average in the course at the time of withdrawal. No course may be dropped after the last day of classes. No withdrawals are allowed during the final examination period. The course director is responsible for submitting the correct grade or grade notation. Approval for withdrawal from a core curriculum course is granted only for extraordinary circumstances. Students should be aware that withdrawal from a core course may result in a significant extension of the students’ professional program and may alter financial aid assistance. In the case of CCOM courses that span two or three full quarters with a single grade assigned at the end of the course, students may withdraw from the course during any of the quarters in which the course is administered. If the assigned grade at the time of withdrawal is a "WF", the grade of "WF" will be considered a grade equivalent for all

<table>
<thead>
<tr>
<th>Time at Which Course Withdrawal is Requested</th>
<th>Course Grade at the Time of Withdrawal</th>
<th>Action</th>
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</thead>
<tbody>
<tr>
<td>Prior to first Friday of the course</td>
<td>N/A</td>
<td>No grade - course does not appear on the transcript</td>
</tr>
<tr>
<td>Up to 50% of the course is completed</td>
<td>N/A</td>
<td>W</td>
</tr>
<tr>
<td>Greater than 50% and up to 80% of the course is completed</td>
<td>Passing Failing</td>
<td>W or WF</td>
</tr>
<tr>
<td>Greater than 80% of the course is completed</td>
<td>Passing Failing</td>
<td>W or WF or F</td>
</tr>
</tbody>
</table>

**Withdrawal from the College/University**

The decision to withdraw from the University is a serious matter. Any student who withdraws from a college or a program is dropped from the rolls of the University. As such, if 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 Program Director, if applicable, and the Dean of the decision to voluntarily withdraw and voluntarily relinquish his/her position in the program. The student must contact the Office of the Dean and must complete the appropriate clearance procedures. The withdrawal process includes the clearing of all financial obligations of MWU (including the mailroom, clinical education, library, security, housing, etc.) and a financial aid exit interview. If the withdrawal occurs before the completion of a course, the student must complete a course add/drop form. The student will receive one of the following grades: “W” (Withdrawal) or “WF” (Withdrawal/Failing) or F (Failing). If the student completes the course before withdrawing, a final grade will be assigned. Following completion of these withdrawal procedures, the designation “Withdrawal” will be placed in the student’s permanent record. The designation "Unofficial Withdrawal" is placed in the permanent record of any student who withdraws from his/her program without complying with the above procedures. For more information, see the Financial
Aid sections on Notification of Withdrawal and Tuition Refund Policies.

ADMISSIONS
Prospective students interested in enrolling in any college of 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
AdmissIL@midwestern.edu

Office of Admissions
Midwestern University
19555 North 59th Avenue
Glendale, AZ 85308
623/572-3215
AdmissAZ@midwestern.edu

Admission Deferment
Deferments are only considered under extreme circumstances in which a physical illness or medical condition of the applicant or their immediate family member precludes the student from beginning classes at the start of the academic year. If granted by the Dean, a student may defer their admission for one year only.

To initiate the deferred admissions process, a student must request a deferment in writing to the Director of Admissions by the date designated in their matriculation agreement. The request must be accompanied by a letter(s) from a physician(s) documenting the conditions that prevent the student from beginning their full-time studies. Once all appropriate documentation has been received, the Director of Admissions will forward it to the Dean for review. The Director of Admissions may provide a recommendation on the deferment to the Dean.

The Dean will respond to a written request with a letter to the student detailing the specific conditions associated with the deferment. Typically, the conditions include:

- At the time of the deferral request, the student must submit their deposit monies by the deposit deadline date designated in the matriculation agreement.
- The student must provide a letter from a physician(s) stating that the student can begin full time studies. The letter must be submitted to the Dean at least 30 days prior to the start of classes.

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

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

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

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

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

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

**New Student Orientation**
Orientation programs are planned each year to welcome and facilitate the integration of new students into each of the colleges of the University. In addition, students are provided with opportunities to interact socially with peers, meet faculty, administration and staff members, learn about University services available on campus and develop a sense of belonging to the University community 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 representatives from AZCOM, AZCOPT, CDMA, CHS, CPG and CVM. The members of the Executive Board are the Speaker of the Student Senate, the Vice Speaker, and the Secretary. Meeting every month, the Student Senate provides a mechanism for governance of campus-wide activities and functions. It also provides a vehicle for the exchange of ideas and perceptions concerning student issues that cross college lines.

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/representatives and their terms of offices, (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 Counseling**
The Glendale Campus has two full-time Student Counselors. The Student Counselors are available to help students effectively deal with many issues through individual, couples, and family counseling.

Counseling by the on-campus Student Counselors is subsidized through student activity fees and is provided free of charge to all students of 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 through the Office of Student Services to those students having academic difficulty. 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 possess health insurance and submit documented proof of immunity against certain diseases during their enrollment.

**Recreational Activities**
Committed to the concept of “wellness,” Midwestern University encourages students to utilize the Recreation and Wellness Center. This facility contains rooms for dance/aerobics, weight training, music, crafts, racquet ball, as well as volleyball and basketball in a full sized gymnasium. There are also outdoor basketball courts and sand volleyball courts.

Additionally, student may participate in many intramural sporting activities that are sponsored by the University, including volleyball, soccer, basketball, softball, and ping-pong tournaments. Group activities such as cycling, running, hiking, martial arts, and yoga also occur on a regular basis.
**STUDENT FINANCIAL SERVICES**

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

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

**Financial Aid Disclosure**
Changes in federal, state and/or university policies could affect the Offices 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.

**Contact Information**
Students may contact us by calling 623/572-3321 Monday through Friday between the hours of 8:00 am and 4:30 pm (Mountain Time) or by e-mailing financial aid at azfinaid@midwestern.edu or accounts receivable at azar@midwestern.edu.

Office of Student Financial Services
Midwestern University
Suite 400, Barrel III
19555 N. 59th Avenue
Glendale, AZ 85308

**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.

Students who have an established history of debt nonpayment may qualify for Federal loan programs but do NOT qualify for campus-based aid.

**Loss of Eligibility Due to a Drug Conviction**
A student, who is convicted of a state or federal offense involving the possession or sale of an illegal drug that occurred while the student was enrolled in school and receiving Title IV aid, is not eligible for Title IV funds. [An illegal drug is a controlled substance as defined by the Controlled Substance Act and does not include alcohol and tobacco.]

A borrower’s eligibility is based on the student’s self-certification on the Free Application for Federal Student Aid (FAFSA). Convictions that are reversed, set aside or removed from the student’s record, or a determination arising from a juvenile court proceeding do not affect eligibility and do not need to be reported by the student.

A student who is convicted of a drug-related offense that occurred while the student was enrolled in school and receiving Title IV aid loses Title IV eligibility as follows:

- For the possession of illegal drugs:
  - First offense: one year from the date of conviction
  - Second offense: two years from the date of the second conviction
  - Third offense: indefinitely from the date of the third conviction

- For the sale of illegal drugs:
  - First offense: two years from the date of conviction
  - Second offense: indefinitely from the date of the second conviction

A school must provide a student who loses Title IV eligibility due to a drug-related conviction with a timely, separate, clear and conspicuous written notice. The notice must advise the student of his or her loss of Title IV eligibility and the ways in which the student may regain that eligibility.

**Regaining Eligibility after a Drug Conviction**
A student may regain eligibility at any time by completing an approved drug rehabilitation program and by informing the school that he or she has done so. A student regains Title IV eligibility on the date he or she successfully completes the program. A drug rehabilitation program is considered approved for these purposes if it includes at least two unannounced drug tests and meets one of the following criteria:

- The program received or is qualified to receive funds directly or indirectly under a federal, state or local government program.
- The program is administered or recognized by a federal, state or local government agency or court.
- The program received or is qualified to receive payment directly or indirectly from a federally or state licensed insurance company.
- The program is administered or recognized by a federally or state-licensed hospital, health clinic, or medical doctor.
For a student whose Title IV eligibility is reinstated after a drug conviction, the maximum loan period that a school may certify is the academic year during which the student regains eligibility. However, the school may not certify eligibility prior to the date on which eligibility is regained. A student who loses eligibility during a loan period is immediately ineligible to receive subsequent disbursements of Federal Direct Loan Program funds and is required to repay any Title IV funds received after the date he or she loses eligibility. Schools are not required to recalculate a student’s loan amount.

Financing an Education
The Office of Student Financial Services helps coordinate four types of financial aid: scholarships, Federal Work-Study, Veterans’ Educational Benefits, and loans.

Scholarships
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 (FAFSA). Students must meet MWU’s priority financial aid deadline date in order to be considered for eligibility. MWU’s goal is to award between $150,000 and $300,000 each year in non-renewable institutional scholarships to students from each of the University’s colleges. The availability of these funds is determined annually and may be increased or decreased.

MWU Financial Literacy Scholarship: Through our "Sensible Strategies" Program, MWU is committed to providing information about financial literacy and planning for the future through a variety of University-sponsored events, programs and planning tools. It is our objective to encourage students to borrow less, live frugally and graduate with the least possible debt. We demonstrate our commitment to this effort through these scholarships. It is anticipated that these awards will be made annually in support of our efforts to encourage excellent financial practices. Funding is provided by the University’s former School-As-Lender program. Future amounts and availability of funding will depend upon market conditions.

MWU Spirit of Service Scholarship: These scholarships are funded through proceeds from the Chippin’ in for Students Golf Classic. They were established for the benefit of MWU students who have actively participated in community service activities and demonstrate leadership. Students from all of MWU colleges are eligible for these scholarships.

Medical Programs
Arizona Colleges of Osteopathic Medicine, Optometry and Dental Medicine; the College of Pharmacy; the College of Health Sciences Physician Assistant, Occupational Therapy and Physical Therapy Programs, and the Arizona School of Podiatric Medicine participate in the Professional Student Exchange Program administered by the Western Interstate Commission for Higher Education (WICHE), under which legal residents of western states without a public professional school in this field may receive preference in admission and reduced tuition at MWU. To be certified as eligible for this program, the student must contact the WICHE Certifying Officer in his/her state of legal residence for the program application form. The number of students to be supported in each state in this field depends upon state appropriations. For addresses of state certifying officers, go to http://www.wiche.edu/psep/cert-off or write to:

WICHE Professional Student Exchange Program
3035 Center Green Drive
Suite 200
Boulder, CO 80301-2204
303/541-0200
http://www.wiche.edu

Federal Work-Study
Student employment is open to all students who apply for work-study and demonstrate financial need. Students who qualify for this program may work on campus or off campus if performing community service activities or research. 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 bi-weekly at the rate of $11.00 per hour for regular work-study and $13.00 per hour for community service or research work-study. Awards are based on the availability of federal funding.

Federal Student Loans
All Programs

1. Federal Perkins Loan: Qualified graduate students with exceptional financial need may borrow from this campus-based loan program. The interest rate is 5%. Loan amounts and availability of funding are dependent on annual Federal allocations. Awards typically range from $3,000 to $4,000 per academic year. A student may borrow an aggregate maximum of $60,000 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. Direct Unsubsidized 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 (includes amounts borrowed under the Subsidized Stafford program). Students enrolled in the osteopathic medicine, veterinary medicine, dental medicine, optometry, podiatry, clinical psychology and pharmacy programs are eligible to apply for higher annual loan limits based on their program of study and year in school and may borrow up to an increased aggregate loan maximum of $224,000 (includes loans from prior schools). Stafford loans
with disbursements prior to July 1, 2013, must be repaid at a fixed interest rate of 6.8%. Future loan rates will be based on the Department of Education’s determination and will be changed annually. The student is responsible for payment of the interest but may elect to have the interest accrue and capitalize while enrolled.

3. Direct 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. Direct Graduate PLUS loans with disbursements prior to July 1, 2013, must be repaid at a fixed rate of 7.9%; FFEL PLUS loans are at 8.5%. Future Direct PLUS loan rates will be based on the Department of Education’s determination and will be changed annually. Repayment of the loan begins 6 months after graduation, withdrawal, or upon enrolling on a less than half-time basis. Students should check with the lender for deferment eligibility.

**Dentistry, Optometry, Podiatry and Pharmacy**

Health Professions Student Loan (HPSL): Graduate students enrolled full time in a degree-seeking program in dentistry, optometry, podiatry or pharmacy may be eligible for a HPSL. Priority consideration is given to third- and fourth-year students with exceptional financial need based on both student and parent income. HPSL is administered by the Department of Health and Human Services. Award amounts are determined according to number of applicants and availability of funds. HPSL is a subsidized loan with a 5% fixed interest rate and a 12-month grace period before interest begins to accrue. Students who are enrolled less than full-time in a given quarter will not be eligible to receive HPSL funds for a subsequent quarter.

**Medical Programs**

1. 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. Students must also agree to practice primary care medicine through the date on which the loan is repaid in full. Students who are enrolled less than full-time in a given quarter will not be eligible to receive PCL funds for a subsequent quarter.

**Financial Aid for Repeat Courses**

Students repeating a previously passed course (grade of “C” or better) are ineligible for Federal financial aid for the repeated course. Students who are repeating a failing course(s) may be eligible for Federal financial aid to repeat the failures(s) as long as Satisfactory Academic Progress standards (SAP) are met. Those ineligible for Federal aid may be eligible for private loans. Students should contact the Student Financial Services Office to determine specific eligibility.

**Private Student Loans**

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 an additional interest charge (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.

**Veterans’ Educational Benefits**

Midwestern University is approved for Veterans’ Educational Benefits by the Arizona Department of Veterans’ Services for most Glendale MWU programs. For further information and eligibility requirements, students may contact the Registrar’s Office. The address is:

Office of the Registrar
Midwestern University
Suite 400, Barrel III
19555 N. 59th Avenue
Glendale, AZ 85308
623/572-3325
azregistrar@midwestern.edu

**Website Information for Financial Aid**

Additional information regarding scholarship and loan programs can be found in the Midwestern University Student Handbook or on the MWU website, http://www.midwestern.edu/programs-and-admission/student-financial-services/current-students.html. 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 website.
to find information on specific state, professional and/or general interest scholarships.

Applying for Financial Aid

Budget and Cost of Attendance

Each program at Midwestern University has an established budget or Cost of Attendance (COA as it is commonly referred to). Budgets are designed to primarily cover a student’s educational and living expenses while enrolled; if enrolled for nine months, for example, the budget covers the expenses for that period only. The standard budget for each program is developed using federal guidelines that allow for a reasonable standard of living for students within the community. Each year the major components of the budget are reviewed and modified based on changes in costs. To further augment and validate the expenses included in the budget, Midwestern University periodically surveys students in the fall to gather actual expenses being incurred.

Representative major categories included in every budget include:

- Tuition and Fees
- Books and Supplies
- Health and Disability Insurance
- Food
- Transportation Expenses
- Housing
- Utilities
- Personal Expenses

Some programs may include technology and equipment fees as well. In all instances, federal regulations govern what is or is not allowed in budgets.

While most students find it necessary to borrow to pay for their education, we highly encourage students to live as modestly as possible in an effort to minimize debt following graduation by utilizing our “Thrifty Budget”. Good choices now can lead to financial freedom down the road. The staff in the Office of Student Financial Services is available to discuss any questions surrounding budgets.

Online Application Process

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

<table>
<thead>
<tr>
<th>Program</th>
<th>Tuition</th>
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<tbody>
<tr>
<td>Arizona College of Osteopathic Medicine</td>
<td>$58,030</td>
</tr>
<tr>
<td>College of Pharmacy - Glendale</td>
<td>$50,577</td>
</tr>
<tr>
<td>College of Dental Medicine - Arizona*</td>
<td>$65,348</td>
</tr>
<tr>
<td>Arizona College of Optometry**</td>
<td>$35,122</td>
</tr>
<tr>
<td>Physician Assistant Studies</td>
<td>$42,074</td>
</tr>
<tr>
<td>Occupational Therapy</td>
<td>$35,790</td>
</tr>
<tr>
<td>Biomedical Sciences, Master of Arts</td>
<td>$38,193</td>
</tr>
<tr>
<td>Biomedical Sciences, Master of Biomedical Science</td>
<td>$32,655</td>
</tr>
<tr>
<td>Podiatric Medicine***</td>
<td>$36,965</td>
</tr>
<tr>
<td>Cardiovascular Science****</td>
<td>$35,682</td>
</tr>
<tr>
<td>Nurse Anesthesia</td>
<td>$38,677</td>
</tr>
<tr>
<td>Clinical Psychology</td>
<td>$30,297</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>$34,035</td>
</tr>
<tr>
<td>Veterinary Medicine</td>
<td>$52,400</td>
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</tbody>
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Glendale Tuition and Fees (for academic year 2014-2015)

Please Note: Tuition rates are subject to change each academic year for all enrolled students. Historically, tuition has increased between 4% and 7% annually.

<table>
<thead>
<tr>
<th>Program</th>
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<tbody>
<tr>
<td>Technology Fee - First Year Only - $1,500</td>
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</tr>
<tr>
<td>Surgical Atlas and Telescope Fee - First Year Only - $1,678</td>
<td></td>
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<tr>
<td>Supply Fee - All Years - $4,314</td>
<td></td>
</tr>
<tr>
<td>Instrument Rental Fee - All Years - $1,990</td>
<td></td>
</tr>
<tr>
<td>Simulation Laboratory and Clinic Fee - All Years - $5,178</td>
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</tbody>
</table>
** The Arizona College of Optometry Program has the following additional fees:
  
  • Technology Fee - First Year Only - $1,500  
  • Equipment and Diagnostic Kit Fee - First Year Only - $4,358  

*** The Arizona School of Podiatric Medicine Program has the following additional fees:

  • Technology Fee - First Year Only - $700  
  • Surgical Instrument Fee - First Year Only - $600  

**** The Cardiovascular Science Program has the following additional fees:

  • Technology Fee - First Year Only - $699  

Tuition Payment

Tuition for full-time students is an annual tuition and may be payable over 1, 2, 3, or 4 quarters per year depending on the academic schedule of the student. Any student enrolled where the course load meets the full-time definition will pay full-time tuition. Students exceeding the maximum prescribed course load will pay overload charges. Students enrolled in an extended studies program will be charged the annual tuition rate for their extra year of enrollment. Students extending their program for one quarter or less will be charged the quarterly tuition rate or on a per credit hourly rate depending on the program and their enrollment status.

We encourage all students to pay their bills via our secure website at https://online.midwestern.edu. Options for payment include online check payment, debit card, or credit card. 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. Cash payments are limited to $250 or less. Tuition due dates will be publicized on www.midwestern.edu. If tuition payments are made through the mail, please address the envelope as follows:

Office of Student Financial Services  
Midwestern University  
Suite 400, Barrel III  
19555 N. 59th Avenue  
Glendale, AZ 85308

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

Payment Plans

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

1. All financial aid must be applied toward the unpaid balance due first before accepting student payments.
2. It will be mandatory for students to utilize MWU’s electronic billing and payment system, available at https://online.midwestern.edu, to set up the payment plan.
3. Payment plans will be effective for the entire quarter.
4. The plan is interest free.
5. A fee of $25 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. The balance will be divided into three payments with the $25 fee being added to the initial payment.
6. A 1.5% late fee will be applied to accounts at 10 days late, and the balance will be accelerated to fully due.
7. The unpaid balance must be paid by the end of each quarter.
8. To maintain eligibility, students must adhere to the monthly due dates and not have been late on any current or prior MWU payment plans.

Prepayment Plans

Students have the option to prepay the entire amount of tuition for their program at the tuition rate that is effective for the first year of study. Prepayment of the entire program’s tuition must be paid in full by the first day of matriculation.

Any student may prepay tuition a year at a time at the current rate. This tuition must be prepaid one full academic year in advance. For example, a student matriculating in the 2014-2015 academic year in September 2014 who wishes to prepay 2015-2016 tuition must make this prepayment by the first day of matriculation in September 2014. Another example is if this same student does not choose to prepay at matriculation but later decides to prepay year-three at the current year-two rate, this prepayment for year-three must be made by the first day of year-two classes. Any exceptions to this policy must be approved by the Director of Finance.

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
students desiring to register for more than the prescribed course load in a given quarter are considered to have a partial course load. In such circumstances, tuition is charged on a per credit hour basis. The per credit hour 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. In addition to full tuition, 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 that cause a course overload to equal the tuition charge for the quarter.

Overloads are defined as follows: AZCOM >29 credit hours; CPG >21 credit hours; CHS Graduate >23 credit hours; CHS Podiatric Medicine >27 credit hours; CDMA >30 credit hours; AZCOPT >30 credit hours; CVM >26 credit hours.

Overdue Accounts
The Office of Student Financial Services will follow up with students to collect past due accounts. This will enable the Office of Student Financial Services to encourage all students to pay their balance owed on time so that they are not dropped from the enrollment of their College.

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

1. 1.5% late fee on unpaid balance is assessed at 10 days past due for all balances of $500 or more. Balances of $499 or less are assessed a flat $7.50 late fee. These fees are assessed on a monthly basis throughout the quarter until the account becomes current.
2. Past due notices will be sent via email.
3. Follow-up contacts will be made but are not limited to phone calls.
4. At 15 days past due, College Dean will be notified of delinquency.
5. Dropped from enrollment 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 MWU. Student must reapply for admission to MWU.
8. Withholding of academic transcripts.
9. Account referred 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 payment deadlines and permitted to continue in school without risk of suspension. However, students must notify the Office of Student Financial Services of any and all circumstances that may necessitate an exception to the payment deadlines. Exceptions to this policy may be made for the following reasons:

1. Circumstances beyond the student’s control (i.e., non-arrival of financial aid, scholarship, or grant funds by the due date);
2. A payment plan has been approved by the Office of Student Financial Services

Returned Checks
A $35.00 fee will be charged on any returned check. After two returned checks a student will be required to pay by cashier’s check or money order. No exception will be made.
Receiving Funds
Students who borrow funds for their living expenses will receive periodic refunds by direct deposits to cover these expenses. Representative living expenses include food, housing, utilities, transportation, books and personal expenses. Students have the obligation to budget funds appropriately so they are able to cover their expenses month to month. Some one-time expenses such as a laptop or medical equipment required at the beginning of a course of study are included in the first disbursement of the year. The objective is to ensure that students have the funding for these major outlays as they occur and are not forced to use credit cards.

Through our comprehensive “Sensible Strategies” program, the Office of Student Financial Services provides a variety of resources to assist students with important money management skills; these include budgeting, credit cards, managing your credit, money management for couples and our innovative loan tracking/repayment tool, Loanlook. We are committed to assisting students as they develop strong money management skills. Go to the Sensible Strategies webpage for information on programs, events, and helpful resources.

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

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

A direct deposit made in error must immediately be returned to MWU.

Satisfactory Academic Progress for Financial Aid Eligibility
As required by Federal law, reasonable standards of satisfactory academic progress for maintaining financial aid eligibility have been established by MWU for all degree-granting programs. These standards apply to all students.

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

Policy
Federal regulations require that all students receiving Federal Title IV financial aid funds maintain satisfactory academic progress (SAP) according to qualitative (GPA) and quantitative (pace/maximum timeframe) measures. Both qualitative and quantitative measures must be met and maintained for continuous financial aid eligibility as outlined in the MWU Standards of Satisfactory Academic Progress for Financial Aid Eligibility.

The quantitative measure defines the pace at which all students must progress to ensure program completion within the maximum timeframe permitted. This period of time cannot exceed 150% of the published length of each program. The completion ratio is calculated by dividing the cumulative “successfully completed” credit hours by the cumulative “attempted” credit hours. Transfer credit hours are included in the completion ratio for all programs. Students must earn 67% of their cumulative credits attempted (not including audited courses) at the time of evaluation, and all periods of enrollment are included regardless whether or not the student receives financial aid. Less-than-full-time enrollment is prorated.

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

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

QUARTERLY SAP REVIEWS: The quarterly SAP review process applies to students enrolled in the Biomedical Science (M.A.) program. When an unsatisfactory SAP determination has been made at the end of a quarter, a financial aid “warning” is issued. Students remain eligible for Title IV aid in the quarter immediately following a financial aid warning, and no further action is necessary unless a student wishes to file an appeal. If SAP is not achieved by the end of a financial aid warning period, a financial aid “probation” status is issued for the following quarter. Students may be eligible for Title IV or Title VII funding during a probationary period as long as an appeal is approved by the Financial Aid Committee. Appeals must include an Academic Plan that ensures the student is able to meet SAP standards by the end of the subsequent quarter. A student may be removed from probation if SAP is achieved at the end of the quarter; otherwise, the student will not be eligible to receive Title IV financial aid and must continue at their own expense each quarter until SAP is achieved.
ANNUAL SAP REVIEWS: A financial aid "suspension" is issued at the end of the Spring quarter for students not meeting satisfactory academic progress. Students cannot receive Title IV financial aid funds unless the suspension is successfully appealed and the student is placed on probation. A student on probation status may receive Title IV financial aid for a subsequent quarter as long as the requirements as specified in the Academic Plan are followed. An Academic Plan must ensure that the student is able to meet SAP standards by a specific point in time. While programs have discretion to determine the length of the Academic Plan, students must be monitored on a quarterly basis to confirm all components as specified in their Academic Plan are being met. Probation statuses may be suspended and student will lose eligibility for Title IV financial aid during the year if the Academic Plan requirements are not met. Once Title IV eligibility is lost, students must continue at their own expense until SAP requirements as set forth in this policy are achieved.

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

Students are limited to a maximum of two (2) appeals of their financial aid status during the course of their enrollment at MWU. Students who do not attain satisfactory academic progress at the conclusion of their second nonconsecutive period of financial aid probation will be placed on financial aid suspension permanently and will not regain financial aid eligibility for the remainder of their enrollment period at MWU. Permanent suspension can be waived at the discretion of the dean of the respective college.
<table>
<thead>
<tr>
<th>Academic Program</th>
<th>Standard &amp; Maximum Time Frames for Program Completion (in years)</th>
<th>Expected Program Completion Per Academic Year (% of coursework completed)</th>
<th>Minimum Cumulative GPA Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard Maximum</td>
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<td></td>
</tr>
<tr>
<td>AZCOM (full-time)</td>
<td>4 6</td>
<td>17%</td>
<td>2.00</td>
</tr>
<tr>
<td>AZCOM (extended studies)</td>
<td>5 6</td>
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<td>2.00</td>
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<tr>
<td>CPG (Pharm.D.)</td>
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<tr>
<td>CHS-Biomedical Sciences (M.B.S.)</td>
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<tr>
<td>CHS-Biomedical Sciences (M.A.)</td>
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<td>66%</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 (M.O.T.)</td>
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<td>30%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS-Cardiovascular Science (M.S.)</td>
<td>2 3</td>
<td>33%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS Podiatric Medicine (D.P.M.)</td>
<td>4 6</td>
<td>17%</td>
<td>2.00</td>
</tr>
<tr>
<td>CHS NA (M.S.)</td>
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<td>30%</td>
<td>2.75</td>
</tr>
<tr>
<td>CHS-Clinical Psychology (Psy.D.)</td>
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<tr>
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<td>CVM (D.V.M.)</td>
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<td>17%</td>
<td>2.00</td>
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</table>
Leave of Absence for Financial Aid Eligibility Policy and Procedure

Policy

1. Students requesting a leave of absence while enrolled at Midwestern University must adhere to the policies and procedures established by the College Dean. In addition, students receiving federal financial aid must understand and follow federal Title IV and Title VII leave of absence regulations as stated in this policy, which may affect the amount of financial assistance received. As stipulated by federal financial aid regulations, any student, including a student receiving Title IV or Title VII assistance, shall be granted a leave of absence under the following conditions:

   - The student must request the leave of absence in writing to the program director, if applicable, with approval from the College Dean. The letter should clearly state the reason(s) for the requested leave of absence.
   - MWU may not charge the student tuition or any educational expenses during a long-term leave of absence (90 days or more). 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 an insurance premium. In addition, a student living on campus will be responsible for paying rent, utilities, and covered parking charges.
   - Students on an approved leave of absence are entitled to all the programs and benefits afforded by the student services fee; accordingly, the student will be charged quarterly.
   - A subsequent leave of absence may be granted for the same student due to an unforeseen circumstance such as military duty, jury duty, or a circumstance covered under the Family and Medical Leave Act of 1993 (FMLA).
   - A student on an approved leave of absence will retain in-school status.

2. 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). Any student whose College Dean grants an approved leave of absence that exceeds 90 days must adhere to the leave of absence policy and reinstatement procedures established by the dean.

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

3. 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 (30 days if withdrawal happens between quarters). For students who do not begin attendance at MWU, SFS must return the amount of unearned Title IV Funds no later than 30 days after the institution becomes aware that the student will not or has not begun attendance. If a student who is not receiving financial aid is granted a leave of absence and fails to return at the end of the approved period, the disposition of such a case will be decided on an individual basis.

4. 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 aid deferment options and consequences of not returning to MWU at the expiration of the leave of absence.

5. 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 each quarter. All outstanding balances must be paid in full prior to a student’s return from a leave of absence.
Procedure

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

2. 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.

3. 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:
   - loan return calculations;
   - prompt return of 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.
   - attempt to contact the student by telephone for a personal exit interview consultation.
   - 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.
   - The Director of Student Financial Services will notify the College Dean and the Program Director, if applicable, of the student’s withdrawal status and the impact the withdrawal has on the student’s financial aid award package.

Notification of Withdrawal

1. A student’s withdrawal date is 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, or for students who officially withdraw, the date the student began the prescribed withdrawal process.

2. A student must provide written notification and documentation, if applicable, to the appropriate College Dean or Program Director, stating the reason for withdrawal from MWU. If approved, the College Dean will conditionally approve a withdrawal until all clearances are obtained.

3. The student must receive clearance for withdrawal from the MWU departments on the http://online.midwestern.edu/leave system within seven calendar days from the date of College 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.

4. Upon submission of all completed documentation and adherence to all clearance procedures, the College Dean will provide an official letter of withdrawal to the student. If a student does not complete the online exit counseling requirement, the Registrar will withhold official academic transcripts.

MWU Refund Policy: Return of Title IV and VII Funds

In establishing a refund policy, MWU has instituted and adheres to all requirements included in the Federal Formula for Return of Title IV Funds as specified in Section 484B of the Higher Education Act of 1965 (as amended). This policy will apply to Title IV and VII funding. MWU’s refund policy includes the following guidelines:

1. Title IV funds include the following programs available at MWU, Direct Unsubsidized Stafford loans, Federal Perkins loans, Direct Graduate PLUS loans, and the Federal Work-Study (FWS) program. However, FWS monies awarded or earned by the student will always be excluded from the refund calculation.
2. Title VII funds include Health Professions Student Loans (HPSL) and Primary Care Loans (PCL).

3. Withdrawal On or Before the First Day of Classes of the Quarter for Which the Student Is Charged.
   - 100% of tuition, University housing, and all other fees will be credited.

4. Withdrawal After the First Day of Classes up to 60% of the Quarter for Which the Student is Charged.
   - Tuition and university housing charges will be prorated on a daily basis proportional to the number of days completed divided by the number of days in the payment period for which the student was enrolled.
   - University meal plans are credited based on the amount used during 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 premiums through the end of the quarter.
   - For students on a leave of absence, no refund of student services fee will be made, as all campus services are still accessible by a student while on an approved leave of absence.
   - Title VII recipients will have future disbursements cancelled if the students is not enrolled full-time in subsequent quarters.

5. 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 credited according to the terms on the housing contract.
   - All credits on University meal plan costs will be based on the remaining balance 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 premiums through the end of the quarter.

6. If a Subsequent Quarter(s) Has Been Prepaid
   - Tuition, student services fee, University housing, and health insurance fee, will be adjusted accordingly.

7. Information technology fee - If a student withdraws before matriculation, or after the first day of classes through the 60% point of the first quarter only, the information technology fee will be adjusted accordingly provided that the equipment/software is returned in the same condition in which the student received it, as determined by the University Information Technology Service, and the student withdraws from the college.

8. All refunds will be distributed in the following order as prescribed by federal law:
   - Direct Unsubsidized Stafford Loan
   - Federal Perkins Loan
   - Direct Graduate PLUS Loan
   - Other Title IV Aid Programs
   - Other Federal Sources of Aid including Title VII funding
   - Other state or private aid *
   - Institutional Aid (MWU Need-Based Scholarship, departmental loans and scholarships)**
   - The Student ***

* MWU will refund scholarship monies in accordance with the sponsoring agency’s policy.
** All refunds of institutional aid will be prorated based on the remaining weeks of the quarter.
Subsequent quarters of awarded institutional funds will be cancelled; therefore, no refunds will be made.
*** MWU will only refund monies to a student who does not owe a repayment of non-institutional funds or who does not have unpaid charges owed to the institution.

9. Students who borrowed and received monies from the Federal Direct Loan Program (Stafford loans, Graduate PLUS loans); Perkins loans; Institutional (MWU) loans, Health Professions Student Loans, Primary Care loans and/or private loans will be legally responsible and obligated to repay in accordance with the terms and conditions outlined in the promissory note(s).

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

11. Students who feel that individual circumstances warrant exceptions from published policy may appeal the MWU Refund Policy. Student appeals need to be submitted to the Director of Student Financial Services.
ACADEMIC CALENDAR

SUMMER QUARTER 2014

Pre-Clinical Quarter (PA-II)  May 19 - July 3, 2014
Clinical Experience I (PT-II)  May 19 - July 3, 2014

Memorial Day *No Class*  May 26, 2014

Classes Resume (PS-15)  May 27, 2014
Orientation (PS-17/PA-I/NA-I/PT-I)  May 27 - 28, 2014

OCM IV Didactic Lectures  May 29 - June 15, 2014

OCM III Introduction to Clerkship  June 18 - 28, 2014

Independence Day *No Class*  July 4, 2014

Last Day of Class (PS-15)  August 1, 2014
Quarterly Exams (PS-15)  August 4 - 8, 2014

Commencement (PA/OT/CP/NA)  August 21, 2014

FALL QUARTER 2014

Orientation (MS-I/PM-I)  July 29 - 31, 2014
Classes Begin (MS-I/PM-I)  August 4, 2014
Last Day to Add/Drop Classes (MS-I/PM-I)  August 8, 2014
Program Completion (PA-III)  August 24, 2014

Labor Day *No Class*  September 1, 2014
White Coat Ceremony


October 31, 2014


WINTER QUARTER 2014


Martin Luther King, Jr. Day *No Class*


SPRING QUARTER 2015


Program Completion Date (PT-III) May 15, 2015

Final Exams (PA-I) May 18 - 21, 2015


Memorial Day *No Class* May 25, 2015

OCM III Exam Week (MS-III) May 26 - 30, 2015


Quarter Break (NA-I/PM-I/PM-II/PT-I/VT-I/OT-I/OT-II/BMS/CP-I/CP-II/CP-III) May 26 - June 5, 2015

Quarter Break (MS-II) May 26 - June 12, 2015


Prep for Clinical Practice (CVSP-I) May 26 - 30, 2015

Quarter Break (PA-I) May 26 - 29, 2015

Quarter Break (CVSP-I) June 1 - 5, 2015

Commencement (MS / OP) May 28, 2015

Commencement (DM / PS / BMS / PM / PT / CVSP) May 29, 2015

BMS =Biomedical Science / CP=Clinical Psychology / CVSP=Cardiovascular Science / DM=Dental Medicine / MS =Medical / NA =Nurse Anesthesia / OP=Optometry / OT =Occupational Therapy / PA=Physician Assistant / PM =Podiatric Medicine / PS =Pharmacy / PT =Physical Therapy / VM= Veterinary Medicine
MISSION
Midwestern University Arizona College of Osteopathic Medicine educates students to exhibit professionalism, provide patient care, and serve their communities in order to become qualified osteopathic physicians.

The mission will be achieved by meeting the following objectives:

1. Incorporate clinical teaching into the curriculum throughout the four year program.
2. Incorporate osteopathic principles and practice into both preclinical and clinical training years.
3. Incorporate basic scientific principles into the learning and medical curriculum.
4. Provide opportunities for research and scholarly activity for students, graduates, and faculty.
5. Prepare students for COMLEX-USA Level 1, Level 2 CE, and Level 2 PE to support completion of the program and graduation.
6. Demonstrate continuing progress in acquiring the core competencies during student clinical clerkship training.
7. Assess the performance of AZCOM graduates.
8. Encourage community service by students, graduates, and faculty.
9. Support the Midwestern University Osteopathic Postgraduate Training Institute (MWU/OPTI) to mutually enhance the training of our students, residents, and faculty.
10. Equip students to be successful in residency placement.
11. Provide faculty development opportunities to promote AZCOM objectives.
12. Provide financial literacy programs and events.

ACCREDITATION
The Arizona College of Osteopathic Medicine is accredited by the American Osteopathic Association (AOA)/Commission on Osteopathic College Accreditation (COCA). COCA is recognized as the accrediting agency for colleges of osteopathic medicine by the United States Department of Education and the Council of Postsecondary Accreditation (COPA). AZCOM underwent a site visit in 2014.

For further information, please contact the Commission on Osteopathic College Accreditation, American Osteopathic Association, 142 E. Ontario St., Chicago, IL 60611; 800/621-1773; or www.osteopathic.org.

DEGREE DESCRIPTION
Upon graduation from Arizona College of Osteopathic Medicine, the Doctor of Osteopathic Medicine (DO) degree is granted. The usual length of the course of study is 4 academic years. The curriculum consists of 2 years of primarily didactic instruction followed by 2 years of primarily clinical rotations, including the applicable didactic material. Upon graduation with the DO degree, the graduate is eligible for postdoctoral residency training in all fields of medicine. Completion of requirements for a DO degree does not guarantee placement in a residency program, future employment, licensure, or credentialing.

ADMISSIONS
The Arizona College of Osteopathic Medicine 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.

Admission Requirements
Students seeking admission to AZCOM must submit the following documented evidence:

1. Completion of the admission course requirements.
   - Grades of C or better (grades of C- are not acceptable)
   - To be competitive, students should have minimum cumulative GPAs and science GPAs over 3.00 on a 4.00 scale
   - To receive a supplemental application, students must have minimum science and cumulative GPAs of 2.75 on a 4.00 scale
2. Completion of a bachelor’s degree at a regionally accredited college or university prior to matriculation.
3. Competitive scores on the Medical College Admissions Test (MCAT).
• Average MCAT score for students entering in 2013 was 28
• Only MCAT exam scores earned from tests taken no more than 3 years prior to the matriculation date of the planned enrollment year are acceptable
• Register for MCAT tests through the MCAT Program Office at 202/828-0690 or visit www.aamc.org/students/applying/mcat/reserving

4. Two letters of recommendation are required.
   • One letter from either a premedical advisory committee or science professor who has taught the applicant
   • Second letter from either a D.O. or an M.D. Letters from osteopathic physicians are strongly recommended, and letters written by immediate family members are not acceptable
   • Letters of recommendation must be submitted by the evaluators. Letters submitted by students are not accepted

Students seeking admission to AZCOM must:
1. Demonstrate understanding of and sincere interest in osteopathic medicine.
2. Demonstrate service orientation through community service or extracurricular activities.
3. Demonstrate motivation for and commitment to health care as demonstrated by previous work, volunteer work, or other life experiences.
4. Demonstrate oral and written communication skills necessary to interact with patients and colleagues.
5. Pass the Midwestern University criminal background check.
6. Commit to abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.
7. Meet the Technical Standards for the College.

Admission Course Requirements

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<tr>
<th>Course</th>
<th>Hours</th>
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<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>

Courses that may contribute to success in medical school include Anatomy, Physiology, and Biochemistry

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. AZCOM typically receives over 4000 applications for its 250 seats.

Rolling Admissions
AZCOM uses a rolling admissions process in which applications are reviewed and interview decisions are made at each interval during the admissions cycle. Interviews are conducted and selection decisions for the College are made until the classes are 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.

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Application Process and Deadlines
The official AACOMAS application deadline is January 1st; however, applicants are strongly encouraged to apply early in the cycle. Due to the large number of applications and the limited number of seats available, applications will be
seats are filled.

1. **AACOMAS Application - January 1st Deadline**
   To initiate the application process, all applicants must register and apply online via the centralized application service administered by AACOM at http://aacomas.aacom.org/. The AACOMAS application is typically available in early June. As part of this process, students must submit official MCAT scores for tests taken no more than 3 years prior to the matriculation date, and official transcripts directly to AACOMAS. The Office of Admissions will not accept MCAT scores or transcripts submitted directly to Midwestern University. The deadline for submission of the AACOMAS application is January 1st.

2. **AZCOM Supplemental Application - March 1st Deadline**
   Upon receipt of the AACOMAS application from the application service, the Midwestern University Office of Admissions will e-mail the supplemental application to all applicants who have earned minimum cumulative GPAs and science GPAs of 2.75. Applicants must complete and submit the supplemental application forms 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 1st.

3. **Letters of Recommendation - March 1st Deadline**
   Applicants must submit two letters of recommendation. One letter must be written by a prehealth advisory committee or science professor who has taught the applicant. The second letter must be written by 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 1st. Letters must adhere to the following guidelines:
   1. The applicant’s full legal name and AACOMAS ID number must be on the front page of the recommendation. The applicant must provide this information to evaluator.
   2. Letters must be sent directly to Admissions from the evaluator and must be printed on letterhead stationery, which includes the complete contact information for evaluator.
   3. The evaluator’s academic degrees must be listed (e.g., Ph.D., D.O., M.D.).
   4. Applicants who have previously applied to AZCOM must submit new letters of recommendation.
   5. Letters from immediate family members will NOT be accepted.

4. **Completed Applications - March 1st Deadline**
   All application materials, including the AACOMAS application, MCAT scores (as reported to AACOMAS), two required letters of recommendation, and all supplemental application materials with the application fee must be received in the Office of Admissions on or before March 1st. Only completed applications received by the Office of Admissions, on or before the deadline date, will be reviewed for potential fall enrollment.

5. **Application Reviews and Interview Decisions**
   AZCOM uses a rolling admissions process to review completed applications and make interview decisions. Applications will not be reviewed until all required application materials have been received by the Office of Admissions, including the AACOMAS application, official MCAT scores (as reported to AACOMAS), supplemental application materials, processing fee, and both required letters of recommendation. Students complete their files as soon as possible to remain competitive in this process and to ensure full consideration of their applications.

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

**Interview and Selection Process**
   Applicants must meet all of the admissions requirements listed previously to be considered for on-campus interviews. After the Office of Admissions receives all of the required application materials, applicant files are reviewed to determine whether applicants merit interview invitations based on established criteria of the Admissions Committee. Applicants who are invited to interview will be contacted by the Office of Admissions and receive instructions for scheduling their interviews via the University’s web-based scheduling system. Additional applicants may be placed on an interview “Wait List” pending possible interview openings toward the end of the interview cycle.

When applicants accept interview appointments, they join other interviewees to meet with members of a three-person interview panel - a panel selected from a volunteer group of basic scientists, current students, administrators, and clinicians. Team members question applicants about their academic and personal preparedness for for medical school, and their understanding of the osteopathic physician role in
the healthcare team. They rate applicants on a standardized evaluation form relative to each variable. At the conclusion of the interviews, the team members forward their applicant evaluations to the Admissions Committee. The Committee may recommend to accept, to deny, or to place the applicant on either the hold or alternate list. This recommendation is then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies accepted applicants within three to four weeks of their interview.

Technical Standards
The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the College. The following abilities and expectations must be met by all students admitted to the College with reasonable accommodation. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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. The candidate must agree to experience touching/palpat ing and being touched/palpat ed by individuals of either gender as defined in the College’s curricular requirements.

Candidates 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean, will identify and discuss what accommodations, if any, the College would need to make that would allow the candidate to complete the curriculum. The College is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.

2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.

3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.

4. Meet the Technical Standards for the college.

5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services.
Insurance must be maintained throughout the entire period of enrollment.

6. Submit additional documents as requested by the Office of Admissions or college.

7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.

8. Submit a signed Credit Policy Statement.

9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.

10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

Pre-matriculation Commitments

Students who have made commitments prior to their matriculation at AZCOM must be aware there may be curricular priorities that are not compatible with their tentative schedules. Students who wish to fulfill prior commitments must request time off from each course director and department chair during the first week of the academic year. Every effort will be made to accommodate those commitments, but MWU does not guarantee that time off for prior commitments will be approved.

Reapplication Process

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

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

Transfer Admission

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

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

1. All inquiries for transfer to AZCOM must be submitted to the Office of Admissions.

2. The Office of Admissions will confirm the availability of rotation sites through the Office of the Dean of AZCOM.

3. If the Dean designates available transfer positions, applications will be sent.

4. Students must return their completed applications to the Office of Admissions and must include a statement of reason of transfer as well as the following from the COM:
   - Transcripts
   - Class rank (must be in top 50%)
   - Dean’s letter verifying “Good Academic Standing”
   - Letter of reference from the Dean of Students

5. AZCOM Dean may require passage of COMLEX-USA Level 1 prior to transfer.

6. Completed applications are forwarded to the Dean of AZCOM.

7. A group appointed by the Dean conducts interviews with applicants.

8. Recommendations are forwarded to the Dean of AZCOM for final approval.

9. Applicants are notified by the Dean through the Office of Admissions of the final transfer decision.

GRADUATION REQUIREMENTS

The degree Doctor of Osteopathic Medicine (D.O.) is conferred upon candidates of good moral character who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements.

Students must pass all didactic course work and rotation courses with a grade of "C," or better, in order to graduate.

Students must pass COMLEX-USA Level 1 and both components of the COMLEX-USA Level 2 examinations of the National Board of Osteopathic Medical Examiners (NBOME). A minimum of 45 months must elapse between the date of matriculation and graduation.

LICENSURE REQUIREMENTS

Licensure for the practice of medicine is granted on a state-by-state basis. Graduates of Arizona College of Osteopathic Medicine (AZCOM) qualify for licensure in all 50 states.

Graduates are referred to the licensing board in each state in which they have interest in licensure, to obtain the specific requirements.

For further information concerning licensure, please contact the American Osteopathic Association (AOA) at (800)621-1773.
CURRICULUM
Instructional Program

As scientists and practitioners of the healing arts, osteopathic physicians subscribe to a philosophy that regards the body as an integrated whole with 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, AZCOM 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, AZCOM students spend their first two years completing a rigorous basic science curriculum and preparing for their clinical studies, including early clinical simulated experiences. During their third and fourth years, students rotate through a variety of clinical training sites accruing 84 weeks of direct patient care experience. By stimulating intellectual curiosity and teaching problem-solving skills, the AZCOM curriculum encourages students to regard learning as a lifelong process.

Total Curricular Hours

| First Year | 68.8 |
| Second Year | 66.5 |
| Elective Credits | 2.0 |
| Third Year | 71.5 |
| Fourth Year | 62.4 |
| Total | 271.2 |

Please Note: The Arizona College of Osteopathic Medicine reserves the right to alter its curriculum however and whenever it deems appropriate.

Total: 68.8

First Year

| ANAT 1511 | Gross Anatomy | 10 |
| BIOC 1511 | Biochemistry I | 7 |
| BIOC 1522 | Biochemistry II | 4 |
| CORE 1560 | Interdisciplinary Healthcare | 0.5 |
| CORE 1570 | Interdisciplinary Healthcare | 0.5 |
| CORE 1580 | Interdisciplinary Healthcare | 0.5 |
| FMED 1531 | Clinical Ethics/Medical Jurisprudence | 1.5 |
| HIST 1511 | Histology/Embryology | 6.5 |
| ICM 1511 | Introduction to Clinical Medicine I | 3 |
| ICM 1522 | Introduction to Clinical Medicine II | 2 |
| ICM 1533 | Introduction to Clinical Medicine III | 2.3 |
| MICR 1531 | Immunology | 3 |
| NEUR 1531 | Neuroscience | 6.5 |
| OMED 1511 | Osteopathic Medicine I | 2.5 |
| OMED 1522 | Osteopathic Medicine II | 2.5 |
| OMED 1533 | Osteopathic Medicine III | 2.5 |
| PHYS 1521 | Physiology I | 5.5 |
| PHYS 1532 | Physiology II | 5.5 |
| PSYC 1511 | Introduction to Human Behavior I | 1 |
| PSYC 1522 | Introduction to Human Behavior II | 1 |
| PSYC 1533 | Introduction to Human Behavior III | 1 |
| ELEC | Mandatory Elective(s) | |
| Total | 68.8 |

Total: 66.5

Second Year

<p>| CLMD 1631 | Introduction to Radiology | 1 |
| CLMD 1632 | Cumulative Review | 3 |
| CLMD 1700 | Introduction to Clerkship | 2 |
| CMED 1613 | Patient Care Experience I | 1 |
| CMED 1624 | Patient Care Experience II | 1 |
| ICM 1614 | Introduction to Clinical Medicine IV | 4.5 |
| ICM 1625 | Introduction to Clinical Medicine V | 4.5 |
| ICM 1630 | Introduction to Clinical Medicine VI | 3 |
| MICR 1611 | Microbiology | 10 |
| OMED 1614 | Osteopathic Medicine IV | 2.5 |
| OMED 1625 | Osteopathic Medicine V | 2.5 |
| OMED 1636 | Osteopathic Medicine VI | 2.5 |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PATH 1611</td>
<td>Pathology I</td>
<td>6</td>
</tr>
<tr>
<td>PATH 1622</td>
<td>Pathology II</td>
<td>6</td>
</tr>
<tr>
<td>PATH 1633</td>
<td>Pathology III</td>
<td>5</td>
</tr>
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<td>PHAR 1611</td>
<td>Pharmacology</td>
<td>11</td>
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<tr>
<td>PSYC 1634</td>
<td>Psychopathology</td>
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<tr>
<td>ELEC</td>
<td>Mandatory Elective(s)</td>
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<tr>
<td>Total</td>
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</table>

**Third Year**

*Total weeks includes orientation and a holiday break/vacation.

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CARD 1701</td>
<td>Core Cardiology Rotation</td>
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<tr>
<td>CLMD 1701</td>
<td>Osteopathic Clinical Medicine - Third Year Didactics</td>
<td>5.5</td>
</tr>
<tr>
<td>FMED 1701</td>
<td>Family Medicine Core Rotation I</td>
<td>6</td>
</tr>
<tr>
<td>FMED 1702</td>
<td>Family Medicine Core Rotation II</td>
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</tr>
<tr>
<td>FMED 1703</td>
<td>Primary Care Rotation</td>
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</tr>
<tr>
<td>IMED 1701</td>
<td>General Internal Medicine Core Rotation I</td>
<td>6</td>
</tr>
<tr>
<td>IMED 1702</td>
<td>General Internal Medicine Core Rotation II</td>
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<tr>
<td>OBGY 1701</td>
<td>Obstetrics/Gynecology Core Rotation</td>
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<td>PEDI 1701</td>
<td>Pediatric Core Rotation</td>
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</tr>
<tr>
<td>PSYC 1701</td>
<td>Psychiatry Core Rotation</td>
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</tr>
<tr>
<td>RURAL 1701</td>
<td>Rural/Underserved Medicine</td>
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<tr>
<td>SURG 1701</td>
<td>General Surgery Core Rotation</td>
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<td>Total</td>
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</tbody>
</table>

**Summer, Fall, Winter, and Spring Quarters (54 weeks)**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLMD 1801</td>
<td>Osteopathic Clinical Medicine - A</td>
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<tr>
<td>CLMD 1802</td>
<td>Osteopathic Clinical Medicine - B</td>
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<tr>
<td>EMED 1801</td>
<td>Elective Rotations</td>
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<td>IMED 1803</td>
<td>Subspecialty Internal Medicine Core Rotation</td>
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<tr>
<td>IMED 1804-A</td>
<td>Critical Care Core Rotation</td>
<td>6</td>
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<tr>
<td>IMED 1804-B</td>
<td>Surgical Intensive Care Unit Core Rotation (alt. choice to IMED 1804-A)</td>
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<tr>
<td>SURG 1802</td>
<td>Subspecialty Surgery Core Rotation</td>
<td>6</td>
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<tr>
<td>Total</td>
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<td>62.4</td>
</tr>
</tbody>
</table>

**Fourth Year**

*Four (4) weeks of (not for credit) elective time may be scheduled as a rotation, vacation, interview, study time, or be used as additional "for credit" elective rotations.

** Total fourth year credits take into account that students choose between IMED 1804-A or IMED 1804-B. Total credit for either course is 6.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| ELEC PRE-CLINICAL COURSES

Students are required to accumulate a total of 2 credit hours of approved elective courses by the end of second year. Students may begin as early as the spring quarter of their first year and must complete this requirement by the end of the second year. The most current offerings may be viewed on the MWU intranet, but varies from year to year. Courses may include:

- Addiction Medicine
- Advanced Gross Anatomy
- Aerospace Medicine
- Case Studies in Pediatrics: What is the Diagnosis?
- Clinical Case Simulation
- EKG Interpretation
- Leadership and Management
- Medical Hypnosis
- Obstetrics and Gynecology Clinical Skills Development
- Osteopathic Manipulative Medicine
- Reproductive Healthcare: Cultural Competency and Sensitivity Issues
- Research
- Table Trainers
- Teaching in the Anatomical Sciences
- Tropical and Geographic Medicine

Total: 62.4
CLINICAL ROTATIONS

Required Core Rotations
Core rotations are required rotations that include both a preceptor evaluation and a post rotation examination and, in some cases, small group participation. Core rotations include: family medicine, internal medicine, surgery, pediatrics, cardiology, psychiatry, obstetrics/gynecology, emergency medicine, and critical care at AZCOM in-system rotation facilities. There are also required rotations in subspecialty medicine, subspecialty surgery, rural/underserved medicine, and primary care medicine. Primary Care rotations may be done at either in-system or approved out-of-system sites. All other required rotations must be done in-system.

Required Elective Rotations
Students must successfully complete a minimum of 24 weeks of elective rotations during their fourth year in recognized disciplines of medicine. Students may also schedule a four week elective at an approved site in international medicine and/or research.

Fourth year students may complete a maximum of 16 weeks of elective rotations in any one discipline.

Elective clinical rotations may be done at osteopathic, allopathic, or military institutions. To be eligible for academic credit, elective rotation schedules must be planned with the assistance of, and approval by, the appropriate clinical department chair.

Breaks/Vacation
There is a one to two week holiday break at the end of the calendar year during the third and fourth years. In addition, there is a one week break for senior week/graduation preparation culminating in graduation for fourth year students.

Students may arrange academic breaks to attend out-of-area interviews, study for and/or take COMLEX-USA Level 2 CE, and/or Level 2PE.

DEPARTMENT DESCRIPTIONS

Department of Anatomy
Through a comprehensive course of study in gross anatomy, embryology, histology, and neuroscience, the anatomy section of the basic sciences provides thorough 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 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 surface projections, models, osteologic specimens, radiographs and transverse sections. The microscopic structure of cells and their organization into tissues and organs are presented in the Histology course. In Embryology, students study the normal pattern of human development with an emphasis on the development of specific organ systems. The Neuroscience course focuses on the sensory and motor systems and uses case studies to apply and reinforce new trends in the field of neuroscience.

Department of Biochemistry
Biochemistry is the science concerned with cellular constituents at the molecular level and all the reactions that take place within a living cell. A biochemical understanding of molecular and cellular components in health enables physicians to appreciate how the properties and function of these components are altered in disease. Biochemistry is fundamental to understanding all branches of the life sciences. The course is offered during the first two terms of medical school and is composed of both lectures and workshops. Workshops are conducted with small groups using case-based learning to illustrate the application of biochemical concepts in a clinical setting.

Department of Clinical Education
The Department of Clinical Education consists of the following clinical departments, each with a Department Chair and associated faculty:

- Surgery and Anesthesia
- Obstetrics and Gynecology
- Family Medicine
- Internal Medicine
- Pediatrics
- Integrated Medicine
- Osteopathic Manipulative Medicine

The Department of Clinical Education contributes to all four years of the osteopathic medical student’s pre-doctoral training providing academic knowledge, clinical simulation, assessment and active clinical exposure and training.

During the first two years of medical school, the student receives training in basic science courses and skills labs, as well as hands on experiences with standardized patients during Objective Structured Clinical Examinations (OSCEs) and with Osteopathic Manipulative Medicine (OMM). In addition, there are regularly scheduled small groups and lectures to facilitate the clinical application of didactic learning and hands on experiences. Through these courses, medical students gain foundational medical knowledge, demonstrate application of clinical skills and develop professional skills needed for clinical experiences during rotations.

During the third and fourth years, students build on their academic knowledge through clinical rotation exposure in physician’s offices, clinics and hospitals, with direct patient care as well as post rotation examinations (NBME and
The Department of Clinical Education supports all third and fourth year medical students during required core as well as elective rotations. Each third and fourth year student is assigned to an Education Coordinator who assists the student with third and fourth year rotation scheduling, documentation compliance, and guidance for applications to residencies. All faculty within the Clinical Education Department maintain an open-door policy and are integrally involved in coaching and mentoring students regarding career choices and the residency match process. Through the clinical rotation and faculty guidance, medical students gain competency in the integration of medical knowledge, development of differential diagnosis, the reporting of patient care and advancement of professional skills needed to advance to post graduate training in residency.

The Department of Family Medicine
The Department of Family Medicine is integrally involved in medical student training throughout the four years of medical school, beginning in the first year with teaching the comprehensive history and physical examination in Introduction to Clinical Medicine I (ICM). Instruction continues over the following year through five additional ICM courses as well as the Clinical Ethics and Medical Jurisprudence course. Through these courses, students develop skills in differential diagnosis, SOAP note and prescription writing, evidence-based medicine and biostatistics, and gain exposure to the business of medicine. In accordance with the comprehensive nature of family medicine, all systems of the body are discussed using a case-based format across the age span, carefully integrating the art of medicine and osteopathic principles with the concepts of medical diagnosis and treatment of common disease entities. In the second year, members of the family medicine faculty are involved as facilitators in the clinical exam and differential diagnosis workshops. They regularly observe, debrief and grade student performances in Observed Structured Clinical Exam (OSCE) experiences. Prior to rotations, all students participate in an introduction to clerkship workshop led by the department. During third year clinical rotations, the Integrated Medicine Department manages the core clinical clerkship in psychiatry and faculty provide periodic small group lectures. Students are also provided an opportunity to experience emergency medicine in their third-year rural rotation. The department is responsible to oversee the fourth year core rotation in Emergency Medicine.

The Department of Family Medicine participates in the student’s didactic undergraduate medical education throughout their four years at the college. The first year involves instruction in patient care experiences, including instruction in history and physical examinations. Clinical cases are also introduced by the IM department faculty in collaboration with the physiology department during the first year to facilitate integration of clinical relevance to basic science concepts. Second-year students are given presentations in Cardiology, Pulmonology, Neurology, Rheumatology, and Gastroenterology facilitated through the Introduction to Clinical Medicine (ICM) course. The department faculty members collaborate with the Microbiology Department in using clinical case correlates to demonstrate key principles as they relate to clinical care. Department members participate in the Patient Care Experiences course with direct video monitoring of students, debriefing of their patient encounters, and SOAP note grading. Faculty also provide problem-oriented presentations prior to student participation in disease specific Observed Structured Clinical Exam (OSCE) experiences. The Department of Internal Medicine is responsible for the required core clinical clerkship rotations in internal medicine during the third year in both ward and preceptor based General Internal Medicine, Cardiology, and during the fourth year; Critical Care, and one rotation within a medical subspecialty. The Internal Medicine department is also responsible for fourth year clinical elective rotations in Cardiology, Pulmonology, Gastroenterology, Oncology/Hematology, Rheumatology, Neurology,
Allergy/Immunology, Infectious Disease, Nephrology, Endocrinology, and Geriatrics.

**Department of Microbiology and Immunology**

Through a comprehensive presentation of medical microbiology and immunology, the student is introduced to the fundamental characteristics of pathogenic microorganisms and immune mechanisms. Using an organ-system approach, students receive the information necessary for an understanding of the factors that make microbes pathogenic. Pertinent information for various diseases includes the etiology, epidemiology, clinical manifestations, diagnostic procedures, and necessary methods for prevention and control. A separate course in immunology explores the immune system. The roles of cells and molecules in the protection of the human host as well as their roles in immunologically mediated disorders are explored. Insight into the mechanisms that provide effective defense from infection and malignancy is emphasized.

**Department of Obstetrics and Gynecology**

The Department of Obstetrics and Gynecology participates in the student's undergraduate medical education during their four years at the college through didactic lectures as well as hands-on skills workshops. In the first year, the OB/GYN faculty assist the Anatomy Department in pelvic anatomy and anatomy presentations and lectures. In the second year, the department faculty participate, lecture and assist the ICM courses on multiple aspects of women’s health care. The department also offers an elective course for second-year students who want to learn more about obstetrics and gynecology. The OB/GYN Department is responsible for the required core clinical rotation in Obstetrics and Gynecology in the third year. A required pre-rotation component features an intensive small-group workshop where students have hands-on, skill-based workshop involving case presentation and simulation. The skills development workshop consists of a simulation delivery with Noelle (an interactive birthing simulator that mimics a true labor and delivery experience), followed by hands-on vaginal delivery with a birthing model, and concluding with a review of suture skills.

**Department of Osteopathic Manipulative Medicine**

The OMM curriculum is divided into the development of psychomotor skills and the didactic study of osteopathic principles and theory. Sessions are weekly in the first and second years of medical education. During their third and fourth years of clinical rotations, AZCOM students continue their osteopathic education through MWU Osteopathic Postdoctoral Training Institute (OPTI) lectures at OPTI partner sites, didactic lectures delivered at key hospitals in the rotation regions and on campus by AZCOM OMM Faculty Members. The Department of OMM has offered the OMM Student Scholarship Program since 1997. The OMM Scholarship program is an opportunity for students to enhance their knowledge of OMM and become an integral part of teaching role in the department. The two years of clinical medical education at AZCOM expand to three calendar years to provide the opportunity for advanced students to further their studies in Osteopathic Medicine. The Osteopathic Manipulative Medicine Scholar holds specific responsibilities within the AZCOM OMM Department in addition to his or her regular academic requirements. During the scholarship period, the OMM Scholar becomes a vital part of the department. Included are unique opportunities in Advanced Osteopathic Education, Osteopathic Teaching, Leadership Development, Research, and Community Service. In 2012, the department expanded its role in medical education with the addition of a Neuromusculoskeletal Medicine Resident program through the MWU OPTI.

**Department of Pathology**

Pathology focuses on the organism as a whole system. It shows the interrelationship between basic scientific principles and the practice of clinical medicine. The Pathology course is offered during the second year of medical school.

**Department of Pediatrics**

The Pediatric Department at Midwestern University/AZCOM participates in didactic teaching throughout the four medical school years by teaching, lecturing, and participating in workshops for Introduction to Clinical Medicine, as well as participating in Patient Care Experiences that utilizes standardized patients and simulated cases. During the second year, a Pediatric elective course is offered called Case Studies in Pediatrics: What’s Your Diagnosis? This elective provides interested students didactic experience to apply clinical reasoning within a pediatrics focus prior to the third year core rotation. The department manages third and fourth year clinical rotations in the pediatric disciplines. The third year rotations in pediatrics consist of office-based pediatric, pediatric hospitalist-based and ward-based rotation opportunities. There are also rural pediatric offices rotations within and outside of the state of Arizona for interested students. The fourth year provides opportunities for electives in pediatric subspecialties, such as pediatric gastroenterology, pediatric cardiology, and neonatal intensive care unit.

**Department of Pharmacology**

The science of pharmacology deals with properties and effects of drugs and, in a more general sense, with the interactions between chemical compounds and living systems. Medical pharmacology focuses on the mechanisms of action, toxicities, and therapeutic uses of biologically active substances in humans. Pharmacologic knowledge per se is valueless unless health care professionals can apply the information in their daily practice of medicine. Physicians must be able to utilize pharmacology not only to treat but also to prevent disease. At AZCOM, medical students are shown the correlation between pharmacology and related medical sciences, taught how to interpret the actions and uses of major classes of
drugs, and instructed in the applications of pharmacodynamics to therapeutics.

Department of Physiology
The Physiology Department offers courses that provide a comprehensive understanding of the functions of human organs and organ systems, as well as a sound basis for comprehending the adaptations and functional transitions that occur in disease. Mastery of physiologic concepts and problem-based learning are emphasized to provide a foundation that is conducive to the development of diagnostic skills. In addition to conventional didactic instruction, small group clinical case discussion sessions and workshops are used to promote critical thinking, problem solving, and application of physiologic concepts and principles to clinically relevant problems.

Department of Postdoctoral Education
The Department of Postdoctoral Education works to further the continuum of osteopathic medical education between the predoctoral and postdoctoral years by working with the Midwestern University Osteopathic Postdoctoral Institute (MWU/OPTI). Activities include curriculum development, research activities and OMM integration. Didactic lectures, simulation, faculty development and research mentorship are provided to residents and students at MWU/OPTI postdoctoral education sites by AZCOM faculty working with MWU/OPTI on-site faculty.

Curriculum focusing on research training, OMM/OPP and Clinical Allergy and Immunology have been developed and presented at residency sites, in-person and through videoconferencing by AZCOM and MWU/OPTI faculty. Basic Science and clinical specialty lectures in topics such as psychiatry and rheumatology are presented at our residency sites.

Department of Surgery and Anesthesia
The Department of Surgery and Anesthesia at Midwestern University/AZCOM participates in didactic teaching throughout the four medical school years by teaching, lecturing, and participating in workshops. In the second year, the Surgery and Anesthesia department offers a skills-based surgery elective. Several small group Open Forums are offered to interested second year students to provide information on how best to proceed in choosing rotations that will optimally prepare them for their pursuit of a residency in surgery or anesthesiology. The department is responsible for the required core clinical rotation during the third year in General Surgery. Using both preceptor-based and ward-based clinical settings, this rotation helps the student transition from the classroom to the clinical environment by exposing the student to various aspects of patient care in a general surgery practice.

Prior to the core general surgery rotation, each student participates in a required skills-based workshop that maximize the student’s learning potential and successful completion of the core surgery rotation. The hands-on skills lab consists of five separate stations including airway management; scrubbing, gowning, gloving and operating room etiquette; surgical documentation and chart review for patient management; wound closure principles and techniques; and an OMM station covering the diagnosis and treatment for common postoperative surgical problems. During the rotation, students are required to meet with department faculty, in a small-group setting, to formally present an interesting case they have participated in from the rotation. During the fourth year, the department oversees elective surgical rotations including, Anesthesia, Burns, Colorectal, Neurological Surgery, Ophthalmology, Orthopedic Surgery, Otolaryngology, Plastic and Reconstructive Surgery, Thoracic/Cardiovascular Surgery, Transplant Surgery, Trauma Surgery, Urology and Vascular Surgery. Together with the Department of Internal Medicine, the department also coordinates a Surgical Intensive Care Unit (SICU) Core clinical rotation.

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

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

ANAT 1511 Gross Anatomy
In this course, students approach the study of the human body in a regional manner with sequential study of the back and body cavity, including the thorax and abdomino-pelvic regions, and associated body wall structures. This is followed by an examination of the upper and lower extremities, and finally the head and neck. Included in the dissection of each region are the musculoskeletal, vascular, nervous and lymphatic components, relevant surface anatomy, and imaging of the region. The lectures and laboratories are coordinated with the Histology/Embryology course to provide an overall anatomic view of each region. This course involves lecture and dissection in the laboratory. Student progress is evaluated through written and practical examinations. Offered in Pre-Clinical Block I, fall and winter quarter.
10 credits

BIOC 1511 Biochemistry I
Course modules in Biochemistry I feature protein structure and enzymes emphasizing structure-function relationships; cell biology emphasizing how cells move, grow, and divide; molecular biology emphasizing the role of nucleic acids in storage and expression of genetic information; and intermediary metabolism emphasizing degradation and synthesis of carbohydrates, lipids, and amino acids; and tissues and organs emphasizing the customization and adaptation of biochemical pathways in specialized cells.
Clinical aspects as well as regulation and coordination of biologic processes during the fed and fasted states are emphasized. Workshops introduce the biochemical basis of common clinical laboratory tests and/or illustrate clinical applications of biochemical concepts. Offered in Pre-Clinical Block I, fall quarter.

7 credits

BIOC 1522 Biochemistry II
Biochemistry II has modules on human nutrition emphasizing the importance of nutrition in health and preventive medicine; human genetics emphasizing the inheritance of selected genetic disorders; and cell cycle regulation and molecular basis of cancer; and various types of anemia focusing on the biochemical and molecular basis; and hemostasis and its related topics. The workshops introduce the biochemical basis of common clinical laboratory tests and/or they illustrate clinical applications of biochemical concepts. Selected workshops feature a modified problem-based learning environment. Offered in Pre-Clinical Block I, winter quarter.

4 credits

CARD 1701 Core Cardiology Rotation
This third year, 4-week rotation is designed to provide the student with a fundamental knowledge of cardiology and to introduce students to basic procedures relevant to the practice of cardiology. Both ambulatory and inpatient settings are utilized to expose the student to various aspects of the management of patients in a cardiology practice. Rotation experiences include reading, lectures, seminars, small group sessions, and patient care management.

6 credits

CLMD 1631 Introduction to Radiology
Presented in the spring quarter of the second year, this course provides clinical lectures to prepare students to recognize and understand the utilization of common imaging procedures. Offered in Pre-Clinical Block II, spring quarter.

1 credit

CLMD 1632 Cumulative Review
This course will provide the student a solid preparation for the Level 1 medical licensing board examination. The student will learn how to plan out a reasonable study schedule, know the recommended review texts, and learn the level of medical knowledge needed to excel on the licensing exam. The curricular content will blend both basic science and clinical medicine to allow for integration and critical thinking. Ultimately, the goal is for students to surpass the national average score on the examination, which will assist them in attaining residency placement and further the quality of future physicians. The final examination for this course must be passed prior to students being permitted to take COMLEX-USA Level 1. Offered in Pre-Clinical Block II, spring quarter.

3 credits

CLMD 1701 Osteopathic Clinical Medicine - Third Year Didactics
Osteopathic Clinical Medicine is a year-long course during the OMS III year composed of the following components: 1. Certification in Basic Life Support and Advanced Cardiac Life Support. 2). Objective structured clinical examinations (OSCEs) which are conducted throughout the year to evaluate the student’s history and physical examination skills and SOAP note writing skills. 3). Large group lecture on administrative and clinical academic topics relevant to OMS III year rotations. 4). Departments of Family Medicine, Internal Medicine, Obstetrics and Gynecology, Pediatrics, and Surgery/Anesthesia lectures, group discussions, skills laboratories and/or workshops. 5). At the end of the third year, students participate in a series of OSCEs as part of a summative evaluation. Students are graded across three domains: history and physical skills, interpersonal and communication skills and written documentation skills (SOAP notes). The OSCEs are structured to mirror the COMLEX-USA Level 2-PE that each student must take and pass as a graduation requirement. They must pass the end of year final OSCEs to be allowed to progress into the OMS IV year. 6). At the end of the third year, students are required to take and pass a final examination. Students must pass the final examination prior to progressing into the OMS IV year.

5.5 credits

CLMD 1801 Osteopathic Clinical Medicine - Fourth Year Didactics - A
Osteopathic Clinical Medicine, Didactics, Winter Quarter is composed of lectures, workshops, and hands-on osteopathic manipulative medical techniques as well as osteopathic practices and principles that support the fourth-year curriculum. The course is presented over two quarters, currently Winter and Spring. The course is offered live on campus or viewed asynchronously so that students at remote locations may participate. Student learning is assessed through quizzes after each session on Blackboard and via hands-on practical examinations.

1.2 credits

CLMD 1802 Osteopathic Clinical Medicine - Fourth Year Didactics - B
Osteopathic Clinical Medicine, Didactics, Spring Quarter, is composed of lectures and workshops that support the fourth year curriculum. Course is presented over two quarters, currently winter and spring.

1.2 credits
CMED 1613 Patient Care Experience I
This course is designed to help students make the transition from a screening history and physical examination of patients without a chief complaint to a problem-focused history and physical examination for the patient with a chief complaint. Emphasis will be on: 1) generating differential diagnoses; 2) obtaining a problem-focused history; 3) performing a problem-focused physical examination; 4) oral presentation skills; 5) obtaining a medical history from various patients; 6) documentation. Students will gain experience in formulating diagnostic and treatment plans through their participation in interactive group individual Objective Structured Clinical Examinations (OSCEs), and standardized patients. The individual OSCE experiences will be designed to give students the opportunity to conduct history and physical examinations on patients of various ages with different presenting complaints. Offered in Pre-Clinical Block II, fall quarter.
1 credit

CMED 1624 Patient Care Experience II
This course is a continuation of the CMED 1613 course and is designed with two major teaching goals: 1) Provide experiences in how to perform the female breast/pelvic examination and the male genitourinary/prostate examination. 2) Continue assisting students in developing their skills in performing a problem-focused history and physical examination in an Objective Structured Clinical Examination (OSCE) on standardized patients with a chief complaint. Emphasis will be on: generating differential diagnoses, obtaining a problem-focused history, performing a problem-focused physical exam, performing a problem-focused history and physical examination professionally and with the proper interpersonal skills, developing an appropriate SOAP note. Offered in Pre-Clinical Block II, winter quarter.
1 credit

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

ELEC 1801 Elective Rotations
Students have 24 weeks of electives during the fourth year but may designate four of those weeks as additional rotation, study, interview, or vacation time. Elective rotations must be done in four week blocks, although students can petition the respective clinical department chair to be allowed to split an elective into two 2-week blocks. Students may request to do electives in basic science or clinical research. Additionally, one 4-week elective can be used for an international rotation. All electives must be approved by the appropriate Chair in the Department of Clinical Education. Additional policies regarding electives are provided in the Clinical Education Policies Manual.
36 credits

EMED 1801 Emergency Medicine Core Rotation
This fourth-year rotation consists of four weeks of emergency department experiences, and exposes the student to various aspects of managing patients in an emergency department setting. This rotation emphasizes diagnostic skills, ability to prioritize patient care and different views of problems that are usually seen only in the hospital emergency department setting.
6 credits

FMED 1531 Clinical Ethics/Medical Jurisprudence
This course covers complimentary topics and aspects of care that will be necessary to formulate a solid foundation for clinical medicine as it relates to clinical ethics, medical jurisprudence, end of life care, and public health. Ethical issues regarding life and death, medical malpractice, professionalism, and laws regarding documentation and patient privacy are discussed. Instruction is provided by attorneys, a member of the state medical board, and other qualified physicians. Offered in Pre-Clinical Block I, spring quarter.
1.5 credits

FMED 1701 Family Medicine Core Rotation I
The Family Medicine I core rotation consists of a four week experience in third year, which is primarily preceptor-based, but may include both ambulatory and inpatient settings. This service should expose the student to various aspects of the diagnosis and management of patients in a family medicine practice, including the incorporation of osteopathic principles and OMM. This experience is supplemented by small group tutorials, online cases and reading objectives.
6 credits

FMED 1702 Family Medicine Core Rotation II
The Family Medicine II core rotation consists of a four week experience in third year, primarily preceptor-based, but may include both ambulatory and inpatient settings. This service should expose the student to various aspects of the diagnosis and management of patients in a family medicine practice, including the incorporation of osteopathic principles and OMM. This experience is supplemented by small group tutorials, online cases and reading objectives.
6 credits
EMED 1703 Primary Care Rotation
Students may arrange for a Primary Care rotation either in Arizona, or at an out-of-state site. Any out-of-state site must be approved by the Department Chair who oversees that particular discipline. In addition, out-of-state rotations require an affiliation agreement or letter of understanding prior to the start of the rotation and are subject to the current Clinical Education manual. This will be initiated by the Department of Clinical Education once the Chair’s approval for the rotation has been obtained. Rotations may be done in family medicine, general internal medicine, general surgery, osteopathic manipulative medicine, pediatrics, med-peds, preventive medicine, occupational medicine, Hospice, palliative medicine, geriatrics, obstetrics-gynecology, and urgent care. No rotations with family members are permitted.  
6 credits

HIST 1511 Histology/Embryology
In this course, students study the structure of the cell and the distinguishing morphologic characteristics of the four types of tissues: epithelium, connective tissue, muscle tissue, and nervous tissue. Students learn how these four basic tissues are combined to form organs. The course then focuses on the normal microscopic features of the integument, circulatory, respiratory, gastrointestinal, and urogenital systems, as well as the musculoskeletal and endocrine systems, and structures associated with the oral cavity, pharynx, and larynx. In the embryology component of the course, students learn the general pattern and principles of normal development and the basic aspects of development of the trunk, and the nervous, circulatory, gastrointestinal, and urogenital systems, as well as the development of the face, and structures derived from the pharyngeal arches. The lectures are coordinated with the Gross Anatomy course to provide an overall anatomic view of each region. This course uses a lecture-based format. Student progress is evaluated through written and image-based practical examinations. Offered in Pre-Clinical Block I, fall and winter quarter.  
6.5 credits

ICMD 1511 Introduction to Clinical Medicine I
Introduction to Clinical Medicine I presents basic history and physical exam skills and provides workshop experiences. Normal and abnormal findings are illustrated through clinical cases. The development of clinical reasoning skills is emphasized. Training is enhanced by guest lecturers, and history and physical experiences. Offered in Pre-Clinical Block I, fall quarter.  
3 credits

ICMD 1522 Introduction to Clinical Medicine II
Introduction to Clinical Medicine II presents basic history and physical exam skills and provides workshop experiences. Normal and abnormal findings are illustrated through clinical cases. The development of clinical reasoning skills is emphasized. Training is enhanced by guest lecturers, blood draw and injection labs, and history and physical experiences. Offered in Pre-Clinical Block I, winter quarter.  
2 credits

ICMD 1533 Introduction to Clinical Medicine III
Introduction to Clinical Medicine III presents basic history and physical exam skills and provides laboratory experiences. Normal and abnormal findings are illustrated through clinical cases. The development of clinical reasoning skills is emphasized. Training is enhanced by standardized patients, guest lecturers, and history and physical experiences. Offered in Pre-Clinical Block I, spring quarter.  
2.3 credits

ICMD 1614 Introduction to Clinical Medicine IV
Introduction to Clinical Medicine IV is a case-based curriculum that integrates the topics being taught in other second year courses into clinical application. Each week, a new case is presented, and students must obtain a history and physical examination on the patient. Students work in groups to determine problem lists, differential diagnoses, and initial treatment plans. Students write SOAP notes and prescriptions based on their clinical case. An in-depth discussion of the case topics, including differential diagnosis, history and physical, lab and x-ray findings, and disease management is provided by the faculty the following week. The afternoon sessions of this course provide further clinical correlations to the topics taught in basic science, with a strong focus on the pulmonary and cardiovascular systems, including EKG reading and interpretation of heart and lung audio clips. Evidence-based medicine, study design, and biostatistics are introduced in this course, and the curriculum is delivered by faculty from various specialties. Offered in Pre-Clinical Block II, fall quarter.  
4.5 credits

ICMD 1625 Introduction to Clinical Medicine V
Introduction to Clinical Medicine V is a case-based curriculum that integrates the topics being taught in other second year courses into clinical application. Each week, a new case is presented, and students must obtain a history and physical examination on the patient. Students work in groups to determine problem lists, differential diagnoses, and initial treatment plans. Students write SOAP notes, prescriptions, admission notes, and admission orders based on their clinical case. Use of an electronic medical record is introduced and encouraged. An in-depth discussion of the case topics, including differential diagnosis, history and physical, lab and x-ray findings, and disease management is provided by the faculty the following week. The afternoon sessions of this course provide further clinical correlations to the topics taught in basic science, with a strong focus on the gastrointestinal, renal, and genitourinary systems. More topics in evidence-based medicine and biostatistics are covered using online modules, practice problem sets, and
IMED 1630 Introduction to Clinical Medicine VI
Introduction to Clinical Medicine VI continues to link the preclinical and clinical years of the medical school curriculum. Clinical lectures concentrate on topics to ready the student for rotations. The case-based curriculum integrates the topics being taught in other second year courses into clinical application. Each week, a new case is presented, and students must obtain a history and physical examination on the patient. Students work in groups to determine problem lists, differential diagnoses, and initial treatment plans. Students write SOAP notes, prescriptions, admission notes, and admission orders based on their clinical case. Use of an electronic medical record is encouraged. An in-depth discussion of the case topics, including differential diagnosis, history and physical, lab and x-ray findings, and disease management is provided by the faculty the following week. Additional sessions of this course provide further clinical correlations to the topics taught in basic science, with a strong focus on the endocrine and dermatologic systems, as well as obstetrics and gynecology. More topics in evidence-based medicine and biostatistics are covered using online modules, practice problem sets and quizzes. Faculty from various specialties deliver the curriculum. Offered in Pre-Clinical Block II, spring quarter.  
3 credits

IMED 1701 General Internal Medicine Core Rotation I
During the third year, each student will participate in two 4-week rotations in internal medicine. This rotation includes internal medicine learned in hospital ward-based training or department-based training. Reading assignments, learning objectives, small group sessions, and lectures will supplement the clinical experience.  
6 credits

IMED 1702 General Internal Medicine Core Rotation II
During the third year, each student will participate in two 4-week rotations in internal medicine. This rotation includes internal medicine learned in hospital department-based training or ambulatory internal medicine. Reading assignments, learning objectives, small group sessions, and lectures will supplement the clinical experience.  
6 credits

IMED 1803 Subspecialty Internal Medicine Core Rotation
During the fourth year, each student will participate in at least one 4-week medical sub-specialty rotation in a discipline of their choice. Appropriate subspecialties include, but are not limited to cardiology, gastroenterology, hematology, oncology, rheumatology, pulmonology, neurology, infectious disease, nephrology, immunology, and endocrinology. Rotation specific reading objectives supplement the clinical experience for each specialty.  
6 credits

IMED 1804-A Critical Care Core Rotation
Each fourth year student will participate in a 4-week Critical Care rotation. The objectives for this rotation include examining, studying and participating in the management of patients in the hospital critical care setting. The student will become familiar with many common and some uncommon presentations encountered by the critical care physician and observe and/or perform procedures indicated for each patient.  
6 credits

IMED 1804-B Surgical Intensive Care Unit Core Rotation (alt. choice to IMED 1804-A)
During the fourth year, students may request to participate in a 4-week Surgical Intensive Care Unit Core Rotation (IMED 1804-B) as an alternative to a medical Critical Care Core Rotation (IMED 1804-A). Students must be selected and assigned by the Department of Surgery and Anesthesia before scheduling this rotation. The objectives for this rotation include examining, studying, and participating in the management of surgical patients in the hospital SICU setting. The student will become familiar with many common and some uncommon presentations encountered by surgeons and critical care physicians, and observe and/or perform procedures indicated for each surgical patient. Students will be responsible for all the required IMED 1804-A Critical Care Core Rotation material as well as additional SICU material. Student must pass the 1804-A Critical Care Core Rotation 50 question exam as well as 15 additional SICU exam questions.  
6 credits

MICR 1531 Immunology
This course uses a didactic approach for a comprehensive coverage of immunology. Students are presented with information pertinent to fundamental principles of immunology, the cells and cell products involved in host defense mechanisms, their origin, function, and their roles in health, infectious processes, and in immunologic disorders and deficiencies. Offered in Pre-Clinical Block I, spring quarter.  
3 credits

MICR 1611 Microbiology
This course covers basic morphologic, cultural, physiologic, and antigenic characteristics of microorganisms with special emphasis on factors pertinent to clinical medicine. Topics include the principles of microbial genetics and chemotherapy; an organ system approach to viral, bacterial, fungal, and parasitic agents of disease, and their biologic characteristics, natural history, public health importance, course of infection, and host interaction. Laboratory exercises and demonstrations help students develop the microbiologic
skills applicable for clinical practice, acquaint students with available diagnostic laboratory tests and their interpretation. Offered in Pre-Clinical Block II, fall and winter quarter. 10 credits

**NEUR 1531 Neuroscience**
In this course, students study the anatomy of the nervous system and clinical correlations related to the various pathways. Systems are studied in the following order: somatosensory, motor, visual, vestibular, auditory, limbic, hypothalamus, and autonomic nervous system. The course concludes with higher order functions related to the cerebral cortex. Throughout the course, the basic anatomy is presented in the context of neurological disorders that involve the system or pathway being studied. This course uses a lecture-based format. Student progress is evaluated through written and image-based practical examinations. Offered in Pre-Clinical Block I, spring quarter.

6.5 credits

**OBGY 1701 Obstetrics/Gynecology Core Rotation**
This third year, 4-week rotation is designed to provide the student with the fundamental knowledge base in obstetrics and gynecology. The student will be introduced to basic procedures relevant to the practice of OB/GYN, to facilitate an understanding of the approach to clinical problem solving in OB/GYN, and promote acquisition of skills in the diagnosis, management, and prevention of common obstetrical and gynecological conditions. Practice settings include both hospital ward-based and ambulatory center based sites.

6 credits

**OMED 1511 Osteopathic Medicine I**
This course consists of weekly one-hour lectures followed by three-hour laboratory sessions. Instruction begins with an orientation to the osteopathic profession including the distinctive contribution of the osteopathic profession to the delivery of health care. The laboratory sessions reinforce lecture content and identify and develop the practical skills needed to diagnose and treat patients. Early laboratory periods emphasize palpation, identification of anatomic landmarks, evaluation of motion, and evaluation of soft tissues. Diagnostic and manipulative treatment procedures are also taught. Normal anatomy and physiology are emphasized. Students are evaluated by midterm and final written examinations and a practical examination. Offered in Pre-Clinical Block I, fall quarter.

2.5 credits

**OMED 1522 Osteopathic Medicine II**
This course consists of weekly one-hour lectures followed by three-hour laboratory sessions. Laboratory session reinforce material presented in lectures and identify and develop the practical skills needed to diagnose and treat patients. Additional diagnostic procedures and manipulative treatment procedures will be taught in the laboratory. The course progresses into the pathophysiology of the musculoskeletal system and the structural-functional disturbances that can occur. Multiple classifications of technique are taught for clinical practice and to prepare for the national board examination. Students are evaluated by midterm and final written examinations and a practical examination. Offered in Pre-Clinical Block I, winter quarter.

2.5 credits

**OMED 1533 Osteopathic Medicine III**
Osteopathic Medicine instruction consists of a weekly one-hour lecture followed by a three-hour laboratory session. Laboratory sessions are designed to reinforce material presented in lectures and to identify and develop the practical skills needed to diagnose and treat patients. Musculoskeletal findings and the somatic components of disease covering all organ systems are presented throughout the year. Students are evaluated by midterm and final written examinations and a practical examination. At the conclusion of the first year, the medical student is expected to demonstrate proficiency in diagnostic palpation and simple, basic manipulative procedures. Offered in Pre-Clinical Block I, spring quarter.

2.5 credits

**OMED 1614 Osteopathic Medicine IV**
This course consists of weekly one-hour lectures followed by three-hour laboratory sessions. Laboratory sessions reinforce material presented in lectures. It also identifies and develops the practical skills needed to diagnose and treat patients. Additional diagnostic procedures and manipulative treatment procedures will be taught in the laboratory. The second year is an expansion and continuation of the previous year’s work and the material is presented in the context of clinical problem solving. The sequence of material is coordinated with material presented in other second year courses. Students are evaluated by midterm and final written examinations and a practical examination. Offered in Pre-Clinical Block II, fall quarter.

2.5 credits

**OMED 1625 Osteopathic Medicine V**
This course consists of weekly one-hour lectures followed by three-hour laboratory sessions. Laboratory sessions reinforce material presented in lectures and identifies and develops the practical skills needed to diagnose and treat patients. Additional diagnostic procedures and manipulative treatment procedures will be taught in the laboratory. The second year is an expansion and continuation of the previous year’s work and the material is presented in the context of clinical problem solving. The sequence of material is coordinated with material presented in other second year courses. Students are evaluated by midterm and final written examinations and a practical examination. Offered in Pre-Clinical Block II, winter quarter.

2.5 credits
OMED 1636 Osteopathic Medicine VI
This course consists of weekly one-hour lectures followed by three-hour laboratory sessions. Laboratory sessions reinforce material presented in lectures, identify, and develop the practical skills needed to diagnose and treat patients. Additional diagnostic procedures and manipulative treatment procedures will be taught in the laboratory. The second year is an expansion and continuation of the previous year’s work and the material is presented in the context of clinical problem solving. The sequence of material is coordinated with material presented in other second year courses. Students are evaluated by midterm and final written examinations and a practical examination. At the culmination of the six quarters of instruction, there is a “Find It/Fix It” practical examination that tests the student’s ability to diagnose and simulate treatment of an actual patient. Offered in Pre-Clinical Block II, spring quarter.
2.5 credits

PATH 1611 Pathology I
This course introduces students to the basic concepts of pathology. It stresses altered cellular, genetic, and molecular mechanisms, and attempts to convey the dynamic nature of the processes involved. By focusing on the organism as a whole system, the discipline of pathology can provide a bridge for transition by showing the interrelationship between basic scientific principles and the practice of clinical medicine. This approach provides a complete, medical overview of the disease process in relation to its histological, functional, and structural changes. Students have an opportunity to develop the skills necessary to interpret and use laboratory data in describing and recognizing various types of injury to cells, tissues, and organs. Offered in Pre-Clinical Block II, fall quarter.
6 credits

PATH 1622 Pathology II
A continuation of basic pathology, this course identifies the causes and mechanisms of disease as they relate to specific organ systems as well as stressing the need for the medical student to understand the pathophysiology of disease and its implications to both the patient and the physician. Emphasis is also placed on the dynamic process of the pathologic progression of changes, adaptive responses, and therapeutic modifications as well as discovering how all these changes produce the ultimate clinical manifestations of disease processes. Offered in Pre-Clinical Block II, winter quarter.
6 credits

PATH 1633 Pathology III
A continuation of basic pathology, this course identifies the causes and mechanisms of disease as they relate to specific organ systems as well as stressing the need for the medical student to understand the pathophysiology of disease and its implications to both the patient and the physician. Emphasis is also placed on the dynamic process of the pathologic progression of changes, adaptive responses, and therapeutic modifications as well as discovering how all these changes produce the ultimate clinical manifestations of disease processes. Offered in Pre-Clinical Block II, spring quarter.
11 credits

PEDI 1701 Pediatric Core Rotation
This third year, 4-week rotation is designed to introduce students to the management of common pediatric conditions. Emphasis is placed on obtaining a pediatric history, performing the physical examination, communicating with adult care givers, formulating differential diagnoses, and selecting appropriate diagnostic studies where appropriate. Students should be able to differentiate between normal and abnormal findings, provide patient and family education, provide well child examinations and anticipatory guidance, and begin to develop a cost effective management plan that incorporates referrals when necessary.
5 credits

PHAR 1611 Pharmacology
This is a 3-quarter course that deals with all aspects of pharmacology. In the first quarter, the general principles of pharmacology, all aspects of absorption, distribution, metabolism, and elimination of drugs, mechanisms of drug actions, drug testing in humans, and prescription writing. In addition, this course describes in great detail the pharmacologic actions and clinical uses of autonomic and cardiovascular drugs, and the principles of toxicology. (4 hours per week) The course continues in winter. Topics covered include the drugs for the central nervous system, hormones and hormone antagonists, gastric drugs, i.e. antacids, digestants, laxatives, and antihistamines. In addition, the course includes several lectures in clinical pharmacology. Workshops are conducted to demonstrate the application of pharmacologic principles in simulated human cases. In these presentations, emphasis is placed on problem solving, formulating hypotheses, making therapeutic decisions, and evaluating the patient’s response to pharmacotherapy. (4 hours per week) The course continues in spring. Topics include the chemotherapy of microbial viral and parasitic diseases, chemotherapy of neoplastic diseases, drugs acting on the immune system and drugs causing birth defects. Course also includes a series of reviews of the most important topics of the previous subjects. In addition, it includes several lectures in clinical pharmacology. Workshops are conducted to demonstrate the application of pharmacologic principles in simulated human cases. In these presentations, emphasis is placed on problem solving, formulating hypotheses, making therapeutic decisions, and evaluating the patient’s response to pharmacotherapy. (3 hours per week) Offered in Pre-Clinical Block II, fall, winter and spring quarter.
11 credits
**PHYS 1521 Physiology I**
This course presents the biophysics, functional properties, and regulation of membrane transport, excitable cells, skeletal muscle, cardiovascular and gastrointestinal systems. A discussion of circulatory fluid dynamics, peripheral vascular tone, blood pressure, and electrical and mechanical activity of the heart is included in the cardiovascular section of the course. Small group case discussions and workshops facilitate development of critical thinking and problem-solving skills as students use basic physiologic concepts to understand the pathogenesis of signs and symptoms in specific case studies. Offered in Pre-Clinical Block I, winter quarter. 5.5 credits

**PHYS 1532 Physiology II**
This course is a sequel to PHYS 1521 and builds on physiologic foundations developed during the preceding semester. This course covers the function, mechanism of action, regulation, and integration of the renal and respiratory systems that maintain body homeostasis through fluid, electrolyte and gas balance. The endocrine section of the course presents the function, mechanism of action, and regulation of specific hormones and several special topics will be explored. Small group discussions will refine critical thinking and problem-solving skills as students identify physiologic and pathophysiologic mechanisms underlying the signs and symptoms described in pertinent clinical case studies. Offered in Pre-Clinical Block I, fall quarter. 5.5 credits

**PSYC 1511 Introduction to Human Behavior I**
This module begins with a course introduction, which includes philosophy, course goals and Audience Response System (ARS) instruction. Students will be introduced to the three major medical models of practice followed by a discussion on professionalism in medical practice. The human life cycle is then covered beginning with childhood and progressing through death and dying. Special topics covered during this term include human sexuality, genetics and the biology of brain function and sleep disorders. Offered in Pre-Clinical Block I, fall quarter. 1 credit

**PSYC 1522 Introduction to Human Behavior II**
The second module begins with a discussion and illustration of how to perform a psychiatric evaluation and mental status examination. The major psychiatric disorders covered include: disorders of childhood and adolescence, attention deficit disorder, cognitive disorders, psychotic disorders, personality disorders, anxiety disorders, and concludes with a discussion on suicide. Offered in Pre-Clinical Block I, winter quarter. 1 credit

**PSYC 1533 Introduction to Human Behavior III**
This module will complete the review of the major psychiatric disorders including: somatoform disorders, eating disorders, dissociative disorders, sleep disorders, substance abuse, psychiatric emergencies, violence and comorbidity, physician/patient boundaries in medical practice. Offered in Pre-Clinical Block I, spring quarter. 1 credit

**PSYC 1634 Psychopathology**
This course will focus on the treatment of the psychiatric disorders discussed in PSYC 1533. The diagnostic criteria presented in earlier classes will be briefly reviewed. The primary goal of this course will be to develop a biopsychosocial treatment plan for the various psychiatric disorders. This will incorporate psychopharmacology, therapeutic modalities and coordination of care. The course will continue to utilize the Audience Response System (ARS) system to encourage group participation and enhance critical thinking. Case and video presentation will be used to demonstrate the psychopathology. Offered in Pre-Clinical Block II, spring quarter. 1 credit

**PSYC 1701 Psychiatry Core Rotation**
This 4-week rotation is designed to provide the student with a fundamental knowledge of psychiatry. It will help facilitate an understanding of the approach to clinical problem solving in psychiatry, and promote the acquisition of skills for the diagnosis, management, and prevention of acute and chronic psychiatric conditions. Ambulatory, crisis and inpatient settings are utilized. Offered in Pre-Clinical Block I, spring quarter. 6 credits

**RURL 1701 Rural/Underserved Medicine**
This third year required rotation focuses on the unique challenges faced when caring for patients in a rural or underserved area. Students complete a 4-week rotation in an area and specialty approved by the respective Department Chair. Offered in Pre-Clinical Block I, spring quarter. 6 credits

**SURG 1701 General Surgery Core Rotation**
This third year, 4-week rotation is designed to provide the student with a fundamental knowledge of surgery. It will help facilitate an understanding of the approach to clinical problem solving in surgery, and introduce the student to basic procedures relevant to the practice of general surgery. Ward based, department based, and preceptor based settings are offered. Determination of which type of rotation a student receives is based upon student preference, rotation availability and rotation site criteria. Final assignment is the sole discretion of the Department of Surgery and Anesthesia. Students are expected to learn how to diagnosis basic surgical diseases while acquiring the basic technical skills that they will need to be able to function efficiently and confidently in the operative theaters, thus maximizing their learning experience. Students
are required to attend the Pre-Rotation Surgical Preparation skills lab prior to beginning this rotation. During the rotation, students will prepare and submit a case presentation to the Department for review. Students are required to complete the reading assignments listed in the Department of Surgery and Anesthesia Learning Objectives and utilize computerized examination test review questions in preparation for the Surgery Shelf Exam at the completion of the rotation. Final grade is composed of PRSP participation and quiz score, Small Group Case Presentation, Rotation Evaluation by preceptor and Shelf Exam score.

6 credits

SURG 1802 Subspecialty Surgery Core Rotation
Students in the fourth year of training will complete a 4-week subspecialty surgery rotation. Building on the skills learned in the third year general surgery rotation, students may choose from a variety of surgical subspecialties such as anesthesia, cardiovascular surgery, ENT, orthopedics, plastic surgery, surgical oncology, trauma, urology, or vascular surgery. There is no post-rotation exam for this course.

6 credits

MWU/OPTI: MIDWESTERN UNIVERSITY OSTEOPATHIC POSTDOCTORAL TRAINING INSTITUTION

Historical match rates to graduate medical education programs accredited by the American Osteopathic Association, Accreditation Council for Graduate Medical Education or the military can be found on the AZCOM Fast Facts webpage at www.midwestern.edu/programs-and-admission/az-osteopathic-medicine.html

Through membership in the MWU/OPTI, AZCOM offers a continuity of osteopathic medical education from the first year of medical school to the final year of postgraduate training. Internship, residency and fellowship programs cover a wide spectrum of medical specialties. Encompassing one of the nation’s largest sets of postdoctoral programs dedicated to the osteopathic philosophy of medicine, the AZCOM and MWU/OPTI medical education continuum is broad reaching in scope, resulting in a multifaceted approach to graduate medical education that focuses on primary care. With unique predoctoral and postdoctoral teaching and training opportunities at some of the finest health care facilities in the Midwest and Southwest as well as the country, AZCOM and MWU/OPTI affiliated hospitals consistently lead the nation in terms of cutting-edge technology, treatment and care.

MWU/OPTI postdoctoral programs include residencies in all primary disciplines, and fellowship programs in many subspecialties, and traditional internships. Programs follow the guidelines of, and receive accreditation from, the Bureau of Osteopathic Education of the American Osteopathic Association.

Residency or fellowship training is offered through MWU/OPTI in the following disciplines:

- Cardiology
- Critical Care
- Dermatology
- Emergency Medicine
- Family Medicine and Osteopathic Manipulative Medicine
- Gastroenterology
- General Surgery
- Hematology/Oncology
- Internal Medicine
- Interventional Cardiology
- Neuromuscular Medicine Plus One
- Neurosurgery
- Obstetrics/Gynecology
- Orthopedic Surgery
- Pulmonary Critical Care
- Radiology
- Rheumatology
- Urologic Surgery

STUDENT ACADEMIC POLICIES

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.

Academic Review & Progression

Two faculty committees of the medical school review the academic performance of students: the Pre-Clinical Promotions Committee for the pre-clinical years and the Clinical Promotions Committee for the clinical years.

Pre-Clinical Promotions Committee

This committee is charged with maintaining standards of excellence in the academic preclinical courses. At a minimum, it meets after the conclusion of each academic quarter to assess the academic status of students with an academic failure, incomplete, or an in progress grade. The committee assesses the progress of each student at the end of the academic year. 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 Pre-Clinical Promotions
Committee. Notification of the date, time, and place of the committee meeting is sent to the student by priority email to their official MWU e-mail account, or by telephone, at least 48 hours in advance. Decisions of the committee are emailed to the student’s official MWU email account. The right to appeal a decision for dismissal or deceleration exists and is described elsewhere in this catalog. Appeals must be filed in writing with the Dean within three working days following official notification of the committee decision.

**Pre-Clinical Promotions Committee Guidelines***

<table>
<thead>
<tr>
<th>Course</th>
<th>Usual Action*</th>
<th>Academic Status</th>
<th>Repeat Course Timing**</th>
<th>Action Following Retake*</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>Academic Warning</td>
<td>Summer or Next Academic Year</td>
<td>Fail-ESP Pass-Promote</td>
</tr>
<tr>
<td>2 Failures</td>
<td>Retake Courses</td>
<td>Academic Warning/or Probation</td>
<td>Next Academic Year</td>
<td>Fail-ESP Pass-Promote</td>
</tr>
<tr>
<td>2 Failures (different quarters)</td>
<td>ESP or Involuntary Academic Leave of Absence</td>
<td>Academic Probation</td>
<td>Next Academic Year</td>
<td>Fail-ESP Dismiss Pass-Promote</td>
</tr>
<tr>
<td>3 Failures (over more than one academic year)</td>
<td>ESP or Involuntary Academic Leave of Absence</td>
<td>Academic Probation</td>
<td>Next Academic Year</td>
<td>Fail-Dismiss Pass-Promote</td>
</tr>
<tr>
<td>3 Failures (one academic year)</td>
<td>Dismissal</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4 Cumulative Failures</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*Action may be modified by the Pre-Clinical Promotions Committee.

**Course repeat schedule is at the discretion of the Pre-Clinical Promotions Committee.

Failures in elective courses carry the same weight as failures in core curriculum courses. Withdrawal/Failing may be considered a course failure by the Pre-Clinical Promotions Committee.

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**Pre-Clinical Promotions Committee Guidelines for Student on Extended Study Program ONLY***

<table>
<thead>
<tr>
<th>Course</th>
<th>Usual Action*</th>
<th>Academic Status</th>
<th>Repeat Course Timing**</th>
<th>Action Following Retake*</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>Academic Warning</td>
<td>Next Academic Year</td>
<td>Fail-Dismiss Pass-Promote</td>
</tr>
<tr>
<td>2 or more Failures</td>
<td>Recommend Dismissal</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

*Action may be modified by the Pre-Clinical Promotions Committee.

**Course repeat schedule is at the discretion of the Pre-Clinical Promotions Committee.

Failures in elective courses carry the same weight as failures in core curriculum courses. Withdrawal/Failing may be considered a course failure by the Pre-Clinical Promotions Committee.
**Clerkship Attendance Policy**

Third and fourth year students must attend all clerkship rotations. The Department of Clinical Education establishes its own attendance requirements stated in the Rotation Manual. Attendance and on-call requirements for clinical rotations take precedence over non-rotation events. Students must be sure that the requirements of each clinical rotation are understood and will be met prior to scheduling non-rotation events.

**Clinical Promotions Committee**

This 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, as well as those who have not met the professional standards set forth in the Osteopathic Oath, are required to meet with the committee. Notification of the date, time, and place of the committee meeting is sent to the student at least 48 hours in advance by priority email to their official MWU email account, or telephone. Decisions of the committee are emailed to the student using their official MWU email account. The right of appeal exists and is described elsewhere in this catalog. Appeals must be filed in writing with the Dean within three working days following official notification of the committee decision.

The Clinical Promotions Committee also recommends to the Faculty Senate for graduation those students who have successfully completed all curriculum requirements, who have passed COMLEX-USA Level I and Level II CE and PE 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></td>
<td></td>
</tr>
<tr>
<td>1 rotation or course failure*</td>
<td>Repeat Rotation or Course</td>
<td>Academic Warning**, or Probation</td>
<td>Fail - Probation, Repeat of Academic Year or Dismissal Pass-Promote or Graduate***</td>
</tr>
<tr>
<td>2 rotations or course failures</td>
<td>Repeat Rotation/Course</td>
<td>Academic Probation</td>
<td>Fail - Repeat Academic Year or Dismissal Pass-Promote or Graduate***</td>
</tr>
<tr>
<td>3 rotations or course failures*</td>
<td>Repeat Academic Year or Dismissal</td>
<td>Academic Probation</td>
<td>Fail - Dismissal Pass - Promote or Graduate***</td>
</tr>
</tbody>
</table>

These guidelines may be modified by the Clinical Promotions Committee for reasons of additional consideration.

* All failures, beginning with Year 1, are considered by the Clinical Promotions Committee

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

*** Graduation additionally requires passage of COMLEX-USA Level 1, Level 2 CE, and Level 2 PE.
Academic Warning & Probation

Good academic standing is achieved by maintaining >70% cumulative average in all courses at all times. A student on academic warning or academic probation is not considered to be in good academic standing. To return to good academic standing, a student must pass the failed courses and incur no further failures.

Academic warning is issued by the Associate Dean for Academic Affairs of AZCOM when a student has <C/failed a course, or at any time during the academic year when a student has <70% in a course. Academic warning represents notice that continued substandard academic performance may compromise the student’s ability to pass one or more courses. Academic warning is not noted on the transcript. A student who has a <70% cumulative average in a course is required to meet with the course director or course faculty to formulate a plan of action. A student who has a cumulative average <70% in more than one course is required to meet with the Associate Dean for Academic Affairs to formulate a plan to achieve academic success. The student will seek assistance from Student Services for tutoring. Students on academic warning are discouraged from holding organizational offices.

Academic probation is defined as failure of >2 courses. Academic probation is issued by the Dean when a student meets this criterion which represents notice that continued substandard academic performance may result in dismissal. When a student is placed on academic probation, it is noted in the student’s permanent academic file. When a student passes the failed courses and returns to good academic standing, this is also noted in the student’s file. Academic probation is not noted on the transcript. The student will seek assistance from Student Services for tutoring. Students on academic probation are ineligible to hold student organizational offices, or to participate in international rotations.

Appeal Process

Following notification of a decision by the Pre-Clinical Promotions Committee or Clinical Promotions Committee, a student may appeal the decision in writing within three working days to the Dean. The Dean may grant an appeal only if a student can demonstrate one of the following:

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

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

Attending Off-Campus Meetings, Conferences, Events

Students interested in attending osteopathic conferences, lobby days, specialty-focused meetings, or any medically or educationally related presentation offered while classes are in session must submit a written request for an excused absence at least 30 days prior to the event date. In the case of students on clinical rotations, the request must be made at least 30 days prior to the start of the rotation during which the event will occur. The student must be in good academic standing and receive written approval from either the Associate Dean for Academic Affairs or the Associate Dean for Clinical Education to attend the event. Students are advised to receive this approval prior to making travel arrangements. Any costs incurred due to a student being denied approval to attend an off-campus event are the sole responsibility of the student.

COMLEX-USA Exam Policy

Students must pass COMLEX-USA Level 1, Level 2 CE and Level 2 PE examinations to be eligible to graduate.

Historical first-time pass rates by AZCOM students and graduates for COMLEX-USA Levels 1, 2 CE, 2 PE, and 3 can be found on the AZCOM Fast Facts webpage at www.midwestern.edu/programs-and-admission/az-osteopathic-medicine.html

COMLEX-USA Eligibility

Students must successfully complete all OMS II course requirements, and meet requirements as established by the Dean’s Office, prior to taking COMLEX-USA Level 1. For those students authorized to take Level 1, the initial attempt to pass the examination must occur within 30 days after the completion of OMS II course requirements. Students begin clinical rotations while awaiting results of their first examination attempt.

Students must pass the COMLEX-USA Level 1 examination, successfully complete all OMS III course requirements, and meet requirements as established by the Dean’s Office prior to taking COMLEX-USA Level 2 CE or Level 2 PE. For both the COMLEX-USA Level 2 CE and Level 2 PE, the initial attempt at each examination must be completed by the date approved by the Dean’s Office.

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

COMLEX-USA Level 1 Failure

Any student who fails the COMLEX-USA Level 1 examination will be allowed to complete the clinical rotation in which he/she is participating at the time of failure notice. The student will be assigned to a minimum one-month involuntary academic leave of absence to study for the next attempt. The student will return to a clinical rotation once he/she has taken the examination for the second time and is awaiting the results of the second examination attempt.

Any student who fails the Level 1 examination a second time will be allowed to complete the clinical rotation in which he/she is participating at the time of failure notice. The student must meet with the Pre-Clinical Promotions
Committee as soon as possible to determine the most appropriate course of action for the third attempt. The student will be placed on involuntary academic leave of absence until a passing grade is received.

A student who fails the COMLEX-USA Level 1 examination a third time will be dismissed.

**COMLEX-USA Level 2 CE or PE Failure**
Any student who fails the COMLEX-USA Level 2 CE or Level 2 PE examination must meet with the Dean, or the Dean’s designee, as soon as possible to determine the most appropriate course of action, up to and including a mandatory academic leave of absence or dismissal. Any student who fails either examination a second time, must appear before the Clinical Promotions Committee to determine the course of action, up to and including a mandatory leave of absence or dismissal.

Any student who fails the COMLEX-USA Level 2 CE examination three times, regardless of his/her performance on the COMLEX-USA Level 2 PE examination, will be dismissed. Any student who fails the COMLEX-USA Level 2 PE examination three times, regardless of his/her performance on the COMLEX-USA Level 2 CE examination, will be dismissed.

**Course Credit**
Course credits are generally determined according to the following formulation: one credit is assigned to a course for three laboratory contact hours per week; two contact hours per week involving interactive group problem-solving or workshop discussion sessions; or one contact hour of formal lecture per week. One and one-half credits are 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.

**Disciplinary Warning/Probation**
Disciplinary warning or probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 in the Student Handbook. Disciplinary warning or probation is not noted on 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 and are documented in the Medical Student Performance Evaluation (MSPE).

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

1. Failure to exhibit the personal qualifications prerequisite to the practice of medicine.
2. Violation of AZCOM policies that are grounds for dismissal.
3. Failure to achieve minimum academic standards.
4. Falsification of admission records.
5. Failure to meet and maintain technical standards.

Students who fail three or more courses in a single academic year, and Extended Study Program (ESP) students who accumulate two failures, usually receive a recommendation for dismissal. Students who receive four cumulative course failures during their enrollment at AZCOM 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 Pre-Clinical Promotions Committee or Clinical Promotions Committee can be appealed to the Dean in accordance with policies found in this catalog.

**Extended Study Program (ESP)**

**Voluntary**
Students have the option to request to voluntarily enter the Extended Study Program (ESP) program. Its purpose is to provide additional time to address personal and academic 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 no later than the completion of 50% of a quarter. Requests received after the fifth week are reviewed by the Dean and granted only for reasons of substantiated hardship or medical emergencies. Students who voluntarily enter ESP may be permitted to retake courses over the summer, at AZCOM or another approved institution, at the discretion of the Pre-Clinical Promotions Committee.

Students will be assessed tuition for any additional years of instruction.

**Academic**
A student will be placed in the Extended Study Program (ESP) for academic reasons at the discretion of the Promotions Committee having jurisdiction over the student’s academic progress. A student placed in ESP for academic reasons is automatically placed on academic probation and may not be returned to good academic standing until all failures are retaken and passed. If a student is placed on ESP, such action does not modify or limit the Preclinical Promotion Committee’s options for recommendation for dismissal. Thus, the student may be dismissed for academic reasons while in ESP.

Students who accumulate three failures in any single academic year, or two failures in a single quarter are placed immediately in the Extended Studies Program, or on academic leave of absence. The student is also placed on academic probation.
He/She is required to retake failed courses during the regular academic year and are not eligible for summer retake courses at AZCOM, or any other medical school.

Students will be assessed tuition for any additional years of instruction.

**Course Withdrawal**
A student may withdraw from a course at any time. Withdrawals are not calculated into the GPA. If a student withdraws with a failing average, then a "WF" or "F" is assigned as a grade. A "WF" or "F" may be considered as a failure by the Promotions Committee.

**Grade Point Average**
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 Pass (P), Withdrawal (W), or Withdrawal Failing (WF) are recorded on the student’s permanent record but are not used in the calculation of the student’s grade point average.

The student’s cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated at the end of the academic year, and does not include any grades or credits for courses audited or accepted for transfer, or courses with a grade of Withdrawal (W), Withdrawal Failing (WF), or Failed (F) that were later repeated.

If a student receives a failing grade, that grade is recorded on the transcript as a letter grade or "F" entry. Upon repetition of a failed course, the original grade of "F" remains on the transcript and the repeated course and grade are entered on the transcript. The grade for an OMS I or OMS II year course repeated at an outside institution, or at MWU and passed is recorded on the transcript as a grade of "C." For all repeated clinical rotations at MWU during the OMS III and OMS IV years that are passed, a grade of "C" will be recorded on the transcript. For both pre-clinical coursework and clinical rotations, the original failing grade will remain on the transcript but will not be included in the GPA calculations. If a repeated pre-clinical course or clinical rotation is failed, a grade of "F" is recorded on the transcript.

**Grade for Retaken Course**
The grade for a failed course repeated at an outside institution, or at MWU, and passed, is recorded as a grade of "C." The name of the institution from which the course was retaken will be listed on the transcript.
Grading System
Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent (%)</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>4.000</td>
<td>--</td>
</tr>
<tr>
<td>A-</td>
<td>90-92</td>
<td>3.670</td>
<td>--</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
<td>3.330</td>
<td>--</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
<td>3.000</td>
<td>--</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
<td>2.670</td>
<td>--</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
<td>2.330</td>
<td>--</td>
</tr>
<tr>
<td>C</td>
<td>70-76</td>
<td>2.000</td>
<td>--</td>
</tr>
<tr>
<td>F</td>
<td>&lt;70</td>
<td>0.000</td>
<td>--</td>
</tr>
<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 &quot;I&quot; grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 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 10 days, it may be converted to a grade of &quot;F,&quot; which signifies failure of the course.</td>
</tr>
<tr>
<td>IP</td>
<td>--</td>
<td></td>
<td>An In Progress grade may be assigned by a course director under certain circumstances (illness, family death, etc.) when incomplete work cannot be resolved within a 10-day period. Outstanding grade should not extend for more than one quarter with notification of the Registrar.</td>
</tr>
<tr>
<td>P</td>
<td>--</td>
<td>0.000</td>
<td>A 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/Passing is given if the grade achieved up to the time of the withdrawal is &gt;70% or &gt;C. Withdrawal/Passing is not counted in the GPA calculation, and is not counted in credit hour accrual for graduation.</td>
</tr>
<tr>
<td>W/F</td>
<td>--</td>
<td>0.000</td>
<td>A Withdrawal/Failing is given after 50% of a course is completed and the grade achieved up to the time of withdrawal is &lt;70% or &lt;C. Withdrawal/Failing is not counted in the GPA calculation, and is not counted in credit hour accrual for graduation. Withdrawal/Failing may be considered as a failure by the Pre-Clinical or Clinical Promotions Committees.</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>
<tr>
<td>PG</td>
<td>--</td>
<td>0.000</td>
<td>The designation of PG indicates a pending grade.</td>
</tr>
</tbody>
</table>

These grading scales apply to all courses unless otherwise noted in the course syllabus.
Immunization Policy
Full-time students enrolled in a program with a clinical component are required to follow the immunization policy as outlined in the general policy section of the Student Handbook. Immunization requirements for AZCOM students are subject to current CDC/applicable state health department protocol and/or affiliated hospital rotation requirements. Failure to complete these requirements may jeopardize continued enrollment in the College.

Liaison Structure

Student/Faculty Liaison Committee, First and Second Years
These two committees consist of a faculty liaison who is involved in the first or second year curriculum and two students elected by the first and second year classes. The faculty liaison is appointed by the Dean of AZCOM, and each class elects student liaisons according to the guidelines stated in the current Student Handbook. The student liaisons and the faculty liaisons generally meet once a quarter to discuss questions the class may have regarding University policy, academic and nonacademic issues that relate to the teaching environment in the first and second years. The faculty liaison reports on meetings that have taken place at the Dean’s Council meetings.

Student/Faculty Liaison Committee, Third and Fourth Years
This committee consists of the AZCOM Associate Dean for Clinical Education and other faculty members of the Clinical Education Department. The president of the third and fourth year classes are the student representatives. The committee generally meet once a quarter to discuss questions the class may have regarding University policy, academic and nonacademic issues that relate to the teaching environment in the third and fourth years. One of the faculty liaisons reports on meetings that have taken place at the Dean’s Council meetings.

Dean’s Council
The Dean’s Council serves as a forum for communication between faculty, staff and student leaders. The faculty liaisons from the Student/Faculty Liaison Committees are members of Dean’s Council. Meetings are scheduled at the discretion of the Dean of AZCOM.

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

Supervision of Medical Students by Physicians Only
While on clinical rotations, medical students must have direct, on-premises supervision by a physician (M.D. or D.O.) who is licensed to practice medicine in the state in which care is being provided. Students may not be supervised by other healthcare providers.

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

FACULTY

AOA Code of Ethics
AZCOM faculty has adopted the Code of Ethics established by the American Osteopathic Association:

The American Osteopathic Association has formulated this Code to guide its member physicians in their professional lives. The standards presented are designed to address the osteopathic physician’s ethical and professional responsibilities to patients, to society, to the AOA, to others involved in health care and to self.

Further, the American Osteopathic Association has adopted the position that physicians should play a major role in the development and instruction of medical ethics.

Section 1. The physician shall keep in confidence whatever she/he may learn about a patient in the discharge of professional duties. The physician shall divulge information only when required by law or when authorized by the patient.

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

Section 3. A physician-patient relationship must be founded on mutual trust, cooperation and respect. The patient, therefore must have complete freedom to choose her/his physician. The physician must have complete freedom to choose patients who she/he will serve. However, the physician should not refuse to accept patients for reasons of discrimination, including, but not limited to, the patient’s race, creed, color, sex, national origin, sexual orientation, gender identity or handicap. In emergencies, a physician should make her/his services available.

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

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

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

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

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

Section 9. A physician should not hesitate to seek consultation whenever she/he believes it advisable for the care of the patient.

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

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

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

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

Section 14. In addition to adhering to the foregoing ethical standards, a physician shall recognize a responsibility to participate in community activities and services. Section 15. It is considered sexual misconduct for a physician to have sexual contact with any current patient whom the physician has interviewed and/or upon whom a medical or surgical procedure has been performed.

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

Section 17. From time to time, industry may provide some AOA members with gifts as an inducement to use their products or services. Members who use these products and services as a result of these gifts, rather than simply for the betterment of their patients and the improvement of the care rendered in their practices, shall be considered to have acted in an unethical manner. (Approved July 2003)

Section 18. A physician shall not intentionally misrepresent himself/herself or his/her research work in any way.

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

Administrative Faculty

John R. Burdick, Ph.D.
Iowa State University
Dean of Basic Sciences
Vice President for Clinic Operations
Professor

Grace L. Cisek, Ed.D., M.S.Ed.
Widener University
Director of Assessment
Assistant Professor

Lori A. Kemper, D.O., M.S.
AT Still University, Kirksville College of Osteopathic Medicine
Dean, Arizona College of Osteopathic Medicine
Associate Professor

Dennis J. Paulson, Ph.D.
Texas Tech University
Vice President, Chief Academic Officer for Dental, Medical and Veterinary Education
Professor

Howard M. Shulman, D.O.
Kansas City University of Medicine and Biosciences
Associate Dean, Department of Postdoctoral Education
Chair, Midwestern University OPPT Glendale Region, Osteopathic Graduate Medical Education Committee
Associate Professor

Mark R. Speicher, Ph.D.
Arizona State University
Associate Dean, Academic Affairs
Assistant Professor

Evelyn Schwalenberg, D.O., M.S.
University of New England, College of Osteopathic Medicine
Associate Dean, Department of Clinical Education
DEPARTMENT OF ANATOMY
Wade Grow, Ph.D., Chair
University of Idaho
Professor

Kathleen Baab, Ph.D.
City University of New York
Assistant Professor

Mark N. Coleman, Ph.D.
Stony Brook University
Associate Professor

Justin Georgi, Ph.D.
Stony Brook University
Associate Professor

Aryeh Grossman, Ph.D.
Stony Brook University
Associate Professor

Margaret I. Hall, Ph.D.
Stony Brook University
Associate Professor

Christopher Heesy, Ph.D.
Stony Brook University
Associate Professor

T. Bucky Jones, Ph.D.
Ohio State University
Associate Professor

Jason Kaufman, Ph.D.
Washington University, St. Louis
Associate Professor

Andrew Lee, Ph.D.
University of California/Berkley
Assistant Professor

Kathleen M. Muldoon, Ph.D.
Washington University, St. Louis
Assistant Professor

Randall L. Nydam, Ph.D.
University of Oklahoma
Professor

Jeffrey Plochocki, Ph.D.
University of Missouri, Columbia
Associate Professor

Erin Simons, Ph.D.
Ohio University
Assistant Professor

Heather Smith, Ph.D.
Arizona State University
Associate Professor

Jose Rodriguez Sosa, Ph.D.
University of Guelph, Canada
Assistant Professor

K. E. Beth Townsend, Ph.D.
Washington University, St. Louis
Associate Professor

Linda M. Walters, Ph.D.
Loyola University, Stritch School of Medicine
Professor

DEPARTMENT OF BIOCHEMISTRY
Y. Gloria Yueh, Ph.D., Chair
University of Connecticut
Professor

Nancy S. Bae, Ph.D.
University of Maryland at College Park/NIH
Assistant Professor

Jose Hernandez, Ph.D.
University of Zaragoza
Associate Professor

Garilyn Jentarra, Ph.D.
Arizona State University
Assistant Professor

Kathryn Lawson, Ph.D.
University of Arizona
Assistant Professor

David F. Mann, Ph.D.
Michigan State University
Professor

Jonathan Valla, Ph.D.
University of Texas at Austin
Assistant Professor

Nagaraj Vinay, Ph.D.
University of Basel
Assistant Professor

DEPARTMENT OF FAMILY MEDICINE
Tracy O. Middleton, D.O., Chair
Oklahoma State University, College of Osteopathic Medicine and Surgery
Associate Professor

Reina M. Gamez, M.M.S., PA-C
Methodist College
Instructor

Anette Gawelko, D.O.
Michigan State University-College of Osteopathic Medicine
Assistant Professor
David Hume, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Lawrence Sands, D.O., M.P.H.
Midwestern University, Chicago College of Osteopathic Medicine
Assistant Professor

Shannon Scott, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Associate Professor

DEPARTMENT OF INTEGRATED MEDICINE
Charles A. Finch, D.O., Chair
Des Moines University, College of Osteopathic Medicine
Professor

Katherine Mitzel, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Sristi Nath, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Associate Professor

DEPARTMENT OF MEDICINE
William Peppo, D.O., Chair
Midwestern University, Chicago College of Osteopathic Medicine
Professor

Ken Myers, M.D., Co-Chair
University of Utah, School of Medicine
Professor

DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY
Lauritz A. Jensen, DA, Chair
University of Northern Colorado
Professor

Fernando Gonzales, Ph.D.
University of Texas Southwestern - Medical Center of Dallas
Assistant Professor

John A. Hnida, Ph.D.
University of New Mexico
Assistant Professor

SAM Katzif, Ph.D.
Georgia State University
Associate Professor

Tyler A. Kokjohn, Ph.D.
Loyola University
Professor

Kathryn J. Leyva, Ph.D.
Northern Arizona University
Professor

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
Farshad Agahi, M.D., Chair
University of Gondi-Shapoor School of Medicine
Associate Professor

Corinne Jedynak-Bell, D.O.
Michigan State University, College of Osteopathic Medicine
Assistant Professor

Peter Wong, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Thomas O'Hare, D.O.
Midwestern University, Chicago College of Osteopathic Medicine
Professor

Martin Reiss, D.O.
Philadelphia College of Osteopathic Medicine
Assistant Professor

Randall K. Ricardi, D.O.
Midwestern University, Chicago College of Osteopathic Medicine
Assistant Professor

Tyler A. Kokjohn, Ph.D.
Loyola University
Professor

Kathryn J. Leyva, Ph.D.
Northern Arizona University
Professor

Amanda D. Loftis, Ph.D., D.V.M.
Utrecht University (Netherlands)
Assistant Professor

Robin R. Parmley, Ph.D.
Rush University
Assistant Professor

D. Ellen K. Tarr, Ph.D.
The Johns Hopkins University
Bloomberg School of Public Health
Associate Professor

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY
Farshad Agahi, M.D., Chair
University of Gondi-Shapoor School of Medicine
Associate Professor

Corinne Jedynak-Bell, D.O.
Michigan State University, College of Osteopathic Medicine
Assistant Professor

Peter Wong, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor
DEPARTMENT OF OSTEOPATHIC MANIPULATIVE MEDICINE
Anthony M. Will, D.O., Chair
Midwestern University, Chicago College of Osteopathic Medicine
Associate Professor

William H. Devine, D.O.
NMM Plus One Residency Program Director, DME
Director, Postdoctoral OMM, Midwestern University/OPTI
Kansas City University of Medicine and Biosciences, College of Osteopathic Medicine
Professor

Gary Gailius, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Richard Geshel, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Greg Heller, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

David Hume, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

Sean Reeder, D.O.
Kansas City University of Medicine and Biosciences, College of Medicine
Assistant Professor

Carlton Richie, D.O.
Midwestern University, Chicago College of Osteopathic Medicine
Associate Professor

Shannon Scott, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

David Shoup, D.O.
Western University, College of Osteopathic Medicine of the Pacific
Associate Professor

Katherine Worden, D.O.
Postdoctoral OPP/OMM Education and Research Faculty Liaison OMM Scholarship Program
Michigan State University, College of Osteopathic Medicine
Associate Professor

DEPARTMENT OF PATHOLOGY
Dana S. Devine, D.O., Chair
Kansas City University of Medicine and Biosciences, College of Osteopathic Medicine
Associate Professor

Lauren McCarver, M.D.
University of Arizona, College of Medicine
Assistant Professor

Tony Tullot, M.D.
Medical College of Georgia
Assistant Professor

DEPARTMENT OF PEDIATRICS
Gregg Zankman, D.O., Chair
Des Moines University, College of Osteopathic Medicine
Assistant Professor

Dan Thuy Dao, D.O.
Midwestern University, Arizona College of Osteopathic Medicine
Assistant Professor

DEPARTMENT OF PHARMACOLOGY
Pamela E. Potter, Ph.D., Chair
Dalhousie University
Professor

Gerald Call, Ph.D.
University of Kansas Medical Center
Associate Professor

Douglas Jones, Ph.D.
University of Texas
Assistant Professor

Laszlo Kerecsen, M.D.
Medical School of Debrecen
Professor

Shaleen Korch, Ph.D.
University of North Dakota
Assistant Professor

DEPARTMENT OF PHYSIOLOGY
George Carlson, Ph.D., Chair
SUNY Upstate Medical Center, Syracuse, New York
Professor

Larry D. Alexander, Ph.D.
Meharry Medical College
Assistant Professor

Layla Al-Nakkash, Ph.D.
University of Newcastle-Upon-Tyne
Professor
Thomas L. Broderick, Ph.D.
University of Alberta
Professor

Chad C. Carroll, Ph.D.
University of Arkansas for Medical Sciences
Associate Professor

Michael C. Quinlan, Ph.D.
Arizona State University
Associate Professor

Johana Vallejo-Elias, Ph.D.
University of Missouri
Associate Professor

DEPARTMENT OF SURGERY AND ANESTHESIA
David M. Parrack, D.O., Chair
Kansas City University of Medicine and Biosciences, College of Osteopathic Medicine
Assistant Professor

Alan Newhoff, M.D.
University of Pennsylvania, School of Medicine
Assistant Professor

Mary Wojnakowski, CRNA, Ph.D.
University of Pittsburgh
Associate Professor
MISSION
The mission of Midwestern University College of Pharmacy-Glendale is to prepare pharmacists who will provide exceptional patient care, participate in critical inquiry and scientific research, and advance public health and wellness.

VISION
To excel in pharmacy education.

CORE VALUES
Excellence
We work to achieve and maintain the highest standards in all our endeavors.
Integrity
We value honesty, ethical decision-making, and caring.
Professionalism
We encourage respect for others, accountability to our stakeholders, and responsibility for one’s actions.
Service & Collaboration
We are committed to working with other academic, community, patient and professional organizations to foster collaboration for the improvement of the public health and society.

ACCREDITATION
Midwestern University College of Pharmacy-Glendale Doctor of Pharmacy degree program is accredited by the Accreditation Council for Pharmacy Education (ACPE): 135 S. LaSalle Street, Suite 4100, Chicago, IL 60603-4810; 312/664-3575; fax 312/664-4652; or www.acpe-accredit.org.

DEGREE DESCRIPTION
At the College, students pursue the Doctor of Pharmacy (Pharm.D.) degree. The Pharm.D. Program prepares the student for entry into the profession of pharmacy. The entire program requires a total of five years of coursework, the first two years at another college and the final three calendar years at the College of Pharmacy-Glendale (CPG). On a year-round basis students complete required courses emphasizing the basic and pharmaceutical sciences, social and administrative sciences, pharmacy practice, elective professional courses, and clinical/experiential education.

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

• Demonstrate a scientific foundation as related to the pharmacy profession
• Integrate systems management concepts into the pharmacy profession
• Identify and practice evidence-based decision making
• Evaluate a patient case
• Implement a pharmaceutical care plan
• Implement public health, wellness, and disease prevention concepts
• Demonstrate oral and written communication skills
• Demonstrate continuous professional development

ADMISSIONS
CPG considers for admission those applicants who possess the academic and professional promise necessary for development as outstanding members of the pharmacy profession. The admissions process is highly selective so applicants are strongly encouraged to apply early in the process as the majority of the class is expected to be filled by early January.

Evaluation of completed applications will begin in July and continue until all seats in the class are filled. This initial evaluation will determine which applicants are eligible for on-campus interviews, and a final evaluation will determine which applicants are eligible for acceptance. Multiple criteria are used to select the most qualified candidates in a competitive admissions environment in which the applicant pool exceeds the number of seats available. Grade point averages (GPAs), Pharmacy College Admission Test (PCAT) scores, letters of recommendation, professional preparedness and motivation, personal qualities, communication skills, teamwork skills, and decision-making skills will all be considered when applicant files are reviewed.

Admissions Requirements
Students seeking admission to CPG must submit the following documented evidence:

1. Completion of 62 semester hours or 90 quarter hours of nonremedial, prerequisite coursework from regionally accredited U.S. colleges or universities, or
recognized postsecondary Canadian institutions that use English as its primary language of instruction and documentation.

- Grades of C or better for prerequisite courses (not C-)
- Minimum cumulative GPA and science GPAs of 2.50 on a 4.00 scale. The Pharmacy College Application Service (PharmCAS) calculates the cumulative and science GPA. Grades from all nonremedial courses completed post-high school are used to calculate the GPAs.

2. Completion of prepharmacy coursework requirements by the end of spring semester or spring quarter prior to matriculation to CPG.

3. Direct submission of PCAT scores to PharmCAS (see Application Process and Deadlines).
   - Competitive test scores no more than 5 years prior to the planned enrollment year.

4. Demonstration of a people or service orientation through community service or extracurricular activities.

5. Motivation for and commitment to the pharmacy profession as demonstrated by previous work, volunteer work, or other life experiences.

6. Oral and written communication skills necessary to interact with patients and colleagues.

7. Completion of the CPG on-campus interview process (by invitation only).

8. Passing the Midwestern University criminal background check.

9. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

### Prerequisite Courses

<table>
<thead>
<tr>
<th>Course(s)</th>
<th>Semester Hrs</th>
<th>Quarter Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Biology with laboratory (for science majors)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Anatomy (human or vertebrate)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>General Chemistry with laboratory (for science majors)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Organic Chemistry with laboratory (for science majors)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Physics (for science majors - mechanics, heat, force, and motion must be included in the course)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Calculus</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Speech (public speaking)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Economics (micro, macro, or general)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Social Sciences (divided among psychology, sociology, anthropology, or political sciences)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>General Education(courses should be divided among humanities, fine arts, foreign language, business, or computer sciences. Science, math, physical education and healthcare courses are NOT acceptable)</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Credit Hours

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Application Process and Deadlines
Applicants must submit a completed PharmCAS application by the stated PharmCAS deadline:

1. PharmCAS Application
   Applicants must apply via the online PharmCAS application (www.pharmcas.org) which is available usually in June of the academic year preceding the year in which applicants plan to matriculate. Please refer to the PharmCAS application instructions for specific details about completing PharmCAS applications, required documents, and processing time. Applicants who have taken coursework or earned degrees from foreign institutions must also submit to PharmCAS an evaluation of their transcripts from an approved foreign transcript evaluation service (see International Applicants).

   The deadline for submitting the PharmCAS application is January 6th. In addition to the online application and application fee, applicants are strongly encouraged to forward official transcripts from all colleges and universities attended to PharmCAS by the January 6th date. PharmCAS will not consider applications complete and will not begin the verification process until all official transcripts have been received. Due to the large number of applications and the limited number of seats available, students are encouraged to complete their PharmCAS applications early in the cycle. CPG will consider completed applications on a first-come, first-served basis until all seats are filled.

2. Pharmacy College Admissions Test (PCAT)
   Applicants must arrange for sending scores directly from the PCAT to PharmCAS using PCAT code 104. CPG will only accept test scores received directly from PharmCAS (see Admission Requirements for more details). PCAT scores sent directly to the Office of Admissions will not be accepted. This exam is offered by Pearson Assessment, 800/622-3231 or www.pcatweb.info. The exam is typically offered four times per year. Only test scores earned no more than 5 years prior to the planned enrollment year are accepted. Please Note: It is highly recommended that applicants take the June, August, or October PCAT exam in the year prior to their planned matriculation. Please check with Pearson Assessment for more details regarding the exam dates.

3. Letters of Recommendation
   Applicants must submit two letters of recommendation from two professionals directly to PharmCAS. CPG will only accept letters received directly from PharmCAS. It is preferred that one letter be written by a college professor who has actually taught the applicant or a prehealth advisory committee, science professor, or health professional who knows the applicant well. Please refer to the PharmCAS application instructions for specific guidelines and requirements for submitting letters of recommendation. The deadline for submission of the letters of recommendation is February 15th.

4. Completed Applications
   All application materials, including the PharmCAS application, verification of transcripts by PharmCAS, PCAT scores (as reported to PharmCAS), and two letters of recommendation (submitted to PharmCAS), must be received by the Office of Admissions on or before the deadline date of February 15th to be reviewed for potential entrance into the College.
Interview and Selection Process
The Director of Admissions and the Admissions Committee review applicant files when complete and use GPA and PCAT scores to determine applicant eligibility for interviews. Invitations are sent to eligible applicants for on-campus interviews, which are scheduled on a first-call, first-scheduled basis. No interviews will be granted until the application process is complete. Interview invitations typically extend from September through February. During the interview process, applicants will meet with an interview panel that may consist of pharmacy faculty members, pharmacists, and pharmacy students. Panel members will evaluate professional motivation and preparedness, personal qualities, communication skills, and decision-making ability by rating applicants on a standardized evaluation scale. After reviewing the applicant’s completed application and interview evaluation, the Admissions Committee recommends accepting, denying, or placing applicants on an alternate list. Recommendations are then forwarded to the Dean for final approval.

Applications to CPG are processed and reviewed during regular intervals in the admissions cycle until the class is filled. The Pharm.D. Program at CPG is rigorous and challenging. The Admissions Committee will therefore assess the quality and rigor of the prepharmacy academic records presented by applicants. When assessing the prepharmacy academic records, the Admissions Committee will:

1. View applicants with cumulative and science grade point averages below 2.75 on a 4.00 scale with particular concern. Although 2.50 on a 4.00 scale is the minimum cumulative and science GPA for admission consideration, higher cumulative GPAs are more competitive and recommended. Those with a cumulative or science GPA below 2.50 on a 4.00 scale will not be granted an interview.

2. Applicants with a PCAT composite below the 50th percentile or any one category below the 30th percentile are strongly advised to retake the exam. It is unlikely that applicants with a composite below the 50th percentile will be granted an interview.

3. View with concern applicants whose prepharmacy math and science coursework was completed longer than 10 years ago. More recent (within five years) prepharmacy math and science coursework is preferred.

4. Consider the reputations for quality and rigor of the institutions where applicants have taken coursework, the extent of completion of science prerequisites, the usual credit load carried per term, the difficulty level of previous coursework, and trends in the applicant’s grades.

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

The following abilities and expectations must be met by all students admitted to the College with reasonable accommodation. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full
utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean, will identify and discuss what accommodations, if any, the College would need to make that would allow the candidate to complete the curriculum. The College is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

Reapplication Process
After receiving either denial or end-of-cycle letters, applicants may reapply to CPG for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of an admissions counselor. To initiate the reapplication process, applicants must submit new applications to PharmCAS. Applications are then processed by the standard application procedures.

Transfer Admission From Another Pharmacy School
CPG may accept transfer students from other ACPE-accredited pharmacy schools or colleges who are currently enrolled, are in good academic standing, and provide legitimate reasons for seeking transfer.

All requests for transfer information should be referred to the Office of the Dean where potential transfer applicants can receive counseling prior to receiving and submitting their applications.

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

1. A letter to the Director of Admissions indicating their reasons for requesting transfer and explaining any difficulties encountered at their current institutions;
2. A completed CPG transfer application;
No guarantee of admission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Readmission will be granted only once.

**GRADUATION REQUIREMENTS**

The degree Doctor of Pharmacy 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 also required to attend the ceremony at which the degree is conferred, unless excused by the Dean.

Candidates for graduation must be of good moral character consistent with the requirements of the pharmacy profession and CPG 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 any degree from CPG.

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

1. Successfully completed a minimum 90 quarter credit hours or 62 semester credit hours 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 CPG faculty and Dean;
3. Attained a cumulative grade point average of 2.00 (C) for all requisite professional and experiential coursework at CPG;
4. Achieved a cumulative rotation grade point average for rotations of 2.00 or greater;
5. Repeated, upon approval, and earned a passing grade for any required courses in the professional program for which a grade of "F" has been issued;
6. Successfully completed, at a minimum, the last 4 didactic quarters and all experiential rotations at CPG;
7. Been recommended for the degree by a majority vote of the CPG Student Promotion and Graduation Committee;
8. Settled all financial accounts with the University;
9. Complete all graduation clearance requirements as instructed by the Office of the Registrar;

Grades must be received and recorded in the permanent record before graduation. Students who do not satisfy the requirements for graduation will be notified by the Office of the Dean. Graduates are encouraged to attend the commencement ceremony and must notify the Dean in advance if they will be absent. Graduates are responsible for providing a permanent address to the Registrar so that official documents can be forwarded.
**Licensure Requirements**

Laws in all states, including the District of Columbia and Puerto Rico, require applicants for licensure to: 1) be of good moral character; 2) be 21 years of age (Arizona is an exception); 3) have graduated from a Doctor of Pharmacy degree program of an ACPE-accredited college or school of pharmacy; and 4) have passed two examinations given by the board of pharmacy. All states, the District of Columbia, Puerto Rico, and the Virgin Islands use the North American Pharmacy Licensure Examination (NAPLEX).

All jurisdictions require candidates for licensure to have a record of practical experience or internship training acquired under the supervision and instruction of a licensed practitioner. Some states, including Arizona accept the training completed during a formal academic program, e.g., CPG’s Pharm.D. Program.

Publications concerning the NAPLEX licensure examination and internship experience are available from the National Association of Boards of Pharmacy, 1600 Feehanville Drive, Mount Prospect, IL 60056; 847/391-4406, www.nabp.net

For further information regarding licensure, please contact the Office of the Dean.

**Curriculum**

CPG reserves the right to alter its curriculum however and whenever it deems appropriate.

**First Professional Year:**

Total Quarter Credit Hours Required: 68.5

### Summer Quarter

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<td>PHYS</td>
<td>Human Physiology 1</td>
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<td>PPRA</td>
<td>Professional Skills Development 1</td>
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<td>MICR</td>
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### Spring Quarter

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<tr>
<td><strong>Clinical Block Advanced Pharmacy Practice Experience Rotations:</strong></td>
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<td>Advanced Community Pharmacy Practice Experience</td>
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<td>PPRA 1792</td>
<td>Advanced Acute Care Pharmacy Practice Experience</td>
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<td>PPRA 1793</td>
<td>Advanced Ambulatory Care Pharmacy Practice Experience</td>
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<td>PPRA 1794</td>
<td>Advanced Health System Pharmacy Practice Experience</td>
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<td>PPRA 1795</td>
<td>Patient Care Elective Advanced Pharmacy Practice Experience</td>
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<td>PPRA 1796</td>
<td>Elective Advanced Pharmacy Practice Experience</td>
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</table>

Students must complete a **minimum** of 12 hours of elective credit in the program at CPG. Elective course offerings **may** include the following:

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<td>PPRA 1350</td>
<td>Journal Club</td>
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<tr>
<td>PPRA 1411</td>
<td>Pharmacological Management of Chronic Pain</td>
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<tr>
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<tr>
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<td>Rare and Interesting Diseases</td>
<td>1.5</td>
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<tr>
<td>PPRA 1416</td>
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<td>Practice-Research Electives</td>
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<td>PPRA 1477</td>
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<td>PPRA 1416</td>
<td>Patient Safety and Quality Assurance</td>
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</table>
Experiential Rotations
Students are required to complete one introductory community experience, one introductory institutional experience, and six advanced pharmacy practice experiences. One advanced pharmacy practice experience may be a non-patient care elective experience.

During their introductory experiences, students spend time in a community pharmacy setting developing the skills necessary to dispense prescriptions, provide patient information, acquire and store drugs, and keep accurate records. In the institutional setting, students will develop the skills necessary to distribute medications, prepare parenteral products, process drug information requests, and perform quality assurance audits. During their advanced patient care experiences (APPEs), students work closely with clinical faculty to develop competencies in the areas of medication therapy management, pharmacotherapy, drug information and patient education. Students can also select an elective rotation that may or may not involve direct patient contact. All rotations place an emphasis on the development of problem solving, critical thinking, and communications skills in the delivery of patient-centered care.

DEPARTMENTS
Department of Pharmaceutical Sciences
The Department of Pharmaceutical Sciences (PSCI) includes several specialty areas that provide the student with a foundation of knowledge upon which the therapeutics of pharmacy practice will be understood. The specialty areas are taught throughout the curriculum in unique classes as well as in the integrated sequence courses that are threaded through the didactic portion of the curriculum. The specialty areas taught by the PSCI faculty include physiology, pathophysiology, pharmaceutics/pharmacokinetics, medicinal chemistry, and pharmacology/toxicology. “The mission of the Department of Pharmaceutical Sciences is to empower students with the scientific foundation essential to the professional pharmacy curriculum. The department endeavors to contribute significantly to Midwestern University by excelling in scientific research and service both within and outside of the College.”

Department of Pharmacy Practice
The Department of Pharmacy Practice is comprised of faculty who provide education in the social, administrative and clinical aspects of pharmacy practice, including patient care experiences. Required courses in the social and administrative science area include an introduction to career development and current pharmacy topics, a survey of the healthcare system, professional practice management, and pharmacy law and ethics. Required courses in the clinical science area include drug literature evaluation and the
pharmacotherapeutics of prescription and non-prescription medications. A professional skills development sequence integrates the knowledge and skills from other courses including communications, 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**

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 1551 Biochemistry**
This course instills basic principles in biochemistry with particular emphasis on pharmaceutical applications. Lectures address acid/base chemistry, structure and function relationships of proteins, enzymes in biochemistry, and major pathways for protein, carbohydrate, and lipid metabolism, and pertinent nutritional topics.
3 credits

**BIOC 1552 Molecular Biology and Human Genetics**
This course instills basic principles in molecular biology and human genetics. Lectures address nucleic acid structure, the flow of information from DNA to protein, current techniques in DNA technology including gene therapy and pharmacogenetics, the molecular basis of cancer and several topics in clinical genetics. Emphasis is placed on the pharmaceutical applications of all topics addressed.
2 credits
Prerequisites: BIOC 1551 Biochemistry

**CORE 1560, 1570, 1580 Interdisciplinary Healthcare**
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated.
Each course 0.5 credits

**MICR 1513 Microbiology**
This survey course in basic and medical microbiology focuses on the more common pathogenic microorganisms that cause morbidity and mortality in humans. The pattern of discussion is uniform: etiology, epidemiology, pathogenesis and pathology, clinical manifestations, diagnosis and prevention.
3 credits

**MICR 1553 Immunology**
This course presents basic aspects of the body’s defense system. Initial lectures address cells and organs of the immune system, complement activation, antigen processing and presentation, and cytokines. Introductory lectures are tied together later in the course with discussions of inflammation and the body’s response to infectious disease. The role of the immune system in the rejection of organ transplants, autoimmunity, hypersensitivity, cancer, and AIDS are also discussed in detail. Current advances in immunotherapy and immunoprophylaxis are emphasized.
3 credits

**PHID 1501-1503, 1604-1609 Integrated Sequence 1-9**
The integrated sequence is a series of nine sequential modules of varying lengths. Each module incorporates the principles of pathophysiology, medicinal chemistry, pharmacology, and pharmacotherapeutics utilizing an organ systems approach.
Prerequisites:
- Prerequisites for PHID 1501 Integrated Sequence 1, 4 credits: PHYS 1501 Human Physiology 1; PHYS 1502 Human Physiology 2; BIOC 1551 Biochemistry; completion of or concurrent enrollment in PPRA 1503 Professional Skills Development 3
- Prerequisites for PHID 1502 Integrated Sequence 2, 4 credits: PHID 1501 Integrated Sequence 1; completion of or concurrent enrollment in PPRA 1503 Professional Skills Development 3
- Prerequisites for PHID 1503 Integrated Sequence 3, 4 credits: PHID 1502 Integrated Sequence 2; completion of or concurrent enrollment in PPRA 1504 Professional Skills Development 4
- Prerequisites for PHID 1604 Integrated Sequence 4, 4 credits: PHID 1503 Integrated Sequence 3; completion of or concurrent enrollment in PPRA 1605 Professional Skills Development 5
- Prerequisites for PHID 1605 Integrated Sequence 5, 4.5 credits: PHID 1604 Integrated Sequence 4; completion of or concurrent enrollment in PPRA 1605 Professional Skills Development 5
- Prerequisites for PHID 1606 Integrated Sequence 6, 4.5 credits: PHID 1605 Integrated Sequence 5; completion of or concurrent enrollment in PPRA 1606 Professional Skills Development 6
- Prerequisites for PHID 1607 Integrated Sequence 7, 4.5 credits: PHID 1606 Integrated Sequence 6; completion of or concurrent enrollment in PPRA 1606 Professional Skills Development 6
- Prerequisites for PHID 1608 Integrated Sequence 8, 4.5 credits: PHID 1607 Integrated Sequence 7; completion of or concurrent enrollment in PPRA 1607 Professional Skills Development 7
skills considered. will be utilized to provide the contextual framework for the Principles taught in this course and the co-requisite courses relate to patient-centered care and the patient care process.

These courses integrate the skills needed to fulfill the professional responsibilities of pharmacy practice as they require by students to understand normal body function and the ability to analyze and interpret the immediate and long-term compensatory responses to common disease states of excitable cells (muscle and nervous tissue), the sensory system, and the endocrine and reproductive systems. Basic and applied terms are defined. Essential relationships between structure and function are defined and discussed.

3 credits

PHYS 1502 Human Physiology 2
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, cardiovascular, respiratory, and gastrointestinal systems. Basic and applied terms are defined. Essential relationships between structure and function are defined and discussed.

3 credits

PPRA 1501-1504, 1605-1607, 1708 Professional Skills Development 1-8
These courses integrate the skills needed to fulfill the professional responsibilities of pharmacy practice as they relate to patient-centered care and the patient care process. Principles taught in this course and the co-requisite courses will be utilized to provide the contextual framework for the skills considered.

Prerequisites:

- Prerequisites for PPRA 1501 Professional Skills Development 1, 3.5 credits: None
- Prerequisites for PPRA 1502 Professional Skills Development 2, 3 credits: PPRA 1501 Professional Skills Development 1
- Prerequisites for PPRA 1503 Professional Skills Development 3, 2 credits: PPRA 1502 Professional Skills Development 2; completion of or concurrent enrollment in PHID 1501 Integrated Sequence 1, PHID 1502 Integrated Sequence 2
- Prerequisites for PPRA 1504 Professional Skills Development 4, 2.5 credits: PPRA 1503 Professional Skills Development 3; completion of or concurrent enrollment in PHID 1503 Integrated Sequence 3
- Prerequisites for PPRA 1605 Professional Skills Development 5, 1.5 credits: PPRA 1504 Professional Skills Development 4; completion of or concurrent enrollment in PHID 1604 Integrated Sequence 4, PHID 1605 Integrated Sequence 5
- Prerequisites for PPRA 1606 Professional Skills Development 6, 1.5 credits: PPRA 1605 Professional Skills Development 5; completion of or concurrent enrollment in PHID 1606 Integrated Sequence 6, PHID 1607 Integrated Sequence 7
- Prerequisites for PPRA 1607 Professional Skills Development 7, 1.5 credits: PPRA 1606 Professional Skills Development 6; completion of or concurrent enrollment in PHID 1608 Integrated Sequence 8, PHID 1609 Integrated Sequence 9
- Prerequisites for PPRA 1708 Professional Skills Development 8, 1.5 credits: PPRA 1607 Professional Skills Development 7; completion of or concurrent enrollment in PPRA 1701 Acute Care Management, PPRA 1737 Disease State Management

PPRA 1524 Pharmacy Law and Public Policy
This course presents principles of law and public policy as they relate to pharmacy practice under federal, state and local regulations. Topics include general rules and regulations governing pharmacy practice, controlled substances, Health Insurance Portability and Accountability Act (HIPAA), and public policy.

2.5 credits

PPRA 1533 Patient Decision Making
This course introduces health belief models and theories, including the patient’s perspective of health, illness, and patient-provider interactions, educational assessment, and consultation related to medication use. The main goal of this course is to help students understand and empathize with patients. The course emphasizes the patient instead of focusing upon the disease. Sociological and psychological implications of living with disease are discussed. Students learn to consider how the patient feels and how they can impact patient outcomes as healthcare professionals.

3 credits

PPRA 1534 Public Health and Disease Prevention
This course focuses on key concepts pertaining to the health of populations, with an emphasis on roles that pharmacists play in disease prevention and health promotion. Particular attention is placed on practical interventions performed by pharmacists, including patient education and awareness activities, health screenings, medication safety practices, and disease prevention programs. Through this course students will also gain an understanding of the work of several social and public health agencies at the local and state levels.

2 credits

PPRA 1535 Community Partnership in Public Health (1/2 of the class)
This course is a service-learning and population-based experience in which students participate in activities that connect individual and community needs by interacting with different community leaders, identifying individual/community needs and resources. This course places students in contact with social and public health agencies working within the community in order to address the needs of the population. This course consists of weekly community activities and several campus-based activities during the quarter.

1.5 credits
Prerequisites: PPRA 1534 Public Health and Disease Prevention

**PPRA 1571 Healthcare Systems**
An overview of the organization, delivery and financing of medical and pharmaceutical care in the U.S. Particular emphasis is placed on the interdependent roles of pharmacists with other healthcare providers, and the key organizations and institutions that are involved in delivering pharmaceutical care to patients. Historical perspective is provided where it contributes to an understanding of contemporary practice.

3 credits

**PPRA 1591 Introduction to Pharmacy Practice**
This course provides the student with a brief history and evolution of the profession of pharmacy, with a focus on career opportunities for the present and future as the role of the pharmacist continues to change in the 21st century. Students complete a self-evaluation to help determine their primary interests in practice and interact with a number of practitioners from varied practice settings.

1 credit

**PPRA 1665 Ethical Decision Making**
This course provides students with a guide to a lifelong pursuit of ethics in the practice of pharmacy. The course begins with a historical discussion of ethical concepts from Aristotle through modern writers and thinkers on the subject. Students are introduced to the process of ethical decision making through the use of tools, algorithms and decision trees. Students discuss questions confronting pharmacists and other healthcare professionals in today’s environment.

2 credits

**PPRA 1667 Complementary and Alternative Medicine**
This course is designed as a survey of complementary and alternative medicine. Students will be introduced to the theory and practice of some of the more popular complementary/alternative therapies (such as dietary supplements, acupuncture, traditional Chinese medicine, homeopathy, herbal medicine, etc). The course will include the use of complementary/alternative medicine associated with common disease states. Students will have the opportunity to research and present a complementary/alternative treatment to the class.

2 credits

Prerequisites: PPRA 1504 Professional Skills Development 4; PPRA 1676 Evidence-Based Healthcare

**PPRA 1672 Research Methods & Epidemiology for Healthcare Professionals**
This course introduces students to statistics and research design. The course covers basic statistical concepts, techniques, notations and computations including descriptive and inferential statistics with an emphasis on statistical methods, computerized data analysis and data assessments most commonly associated with pharmaceutical and medical research. Basic descriptive and inferential statistical processes and procedures are presented as well as topics on the development of research protocols, survey research, and clinical drug investigations.

3 credits

**PPRA 1675 Management I**
An introduction to management concepts, principles and techniques that are applied in contemporary pharmacy practice and healthcare administration. The course is organized into four broad areas of managerial activity and responsibility: financial management, marketing management, operations management with an emphasis on medication safety, and an introduction to pharmacoeconomics.

2.5 credits

**PPRA 1676 Evidence-Based Healthcare**
In this course, students will learn and apply skills that will improve their ability to practice evidence-based healthcare (EBHC). Students were introduced to the steps of practicing EBHC and learned about Step 1 (identify a clinical question) and Step 2 (find relevant literature) of practicing EBHC in previous courses. The course focuses on Step 3 (critically evaluate literature) and Step 4 (apply information to patients).

3 credits

Prerequisites: PPRA 1672 Research Methods & Epidemiology for Healthcare Professionals

**PPRA 1694 Introductory Community Experience**
This experience provides an opportunity for students to participate in basic patient care and distribution services in a community or ambulatory care pharmacy practice setting. Pharmacy students, under the supervision of adjunct clinical faculty, gain experience in community pharmacy practice including the areas of professional communications, drug information retrieval, patient counseling on prescription, and OTC medications, medication distribution, extemporaneous products, and application of federal and state pharmacy laws.

6 credits

Prerequisites: Passing grades in all PS-1 year didactic courses and an annual grade point average of 2.00 or above

**PPRA 1695 Introductory Institutional Experience**
This experience provides an opportunity for students to participate in basic patient care and distribution services in an institutional pharmacy practice setting. Pharmacy students, under the supervision of adjunct clinical faculty, gain experience in institutional pharmacy practice including the areas of professional and patient communications, drug information retrieval, medication distribution systems, sterile product preparation, interprofessional activities, and application of federal and state pharmacy laws.

6 credits
Prerequisites: Passing grades in all PS-1 year didactic courses and an annual grade point average of 2.00 or above

**PPRA 1701 Acute Care Management**
This course will integrate both the practice and patient care management of patients in the acute care (hospital and health-system) setting. Students will enhance their acute care knowledge through case-based lecture and clinical application in the corresponding Professional Skills Development course.
4.5 credits
Prerequisites: PHID 1609 Integrated Sequence 9; PPRA 1607 Professional Skills Development 7; completion of or concurrent enrollment in PPRA 1708 Professional Skills Development 8; PPRA 1737 Disease State Management

**PPRA 1737 Disease State Management**
This course focuses on the skills necessary for pharmacist-directed management of common ambulatory medical conditions involving the cardiac, pulmonary, and endocrine systems. The course builds upon the fundamental information provided in the Integrated Sequence through the incorporation of disease prevention strategies and medication therapy management principles into complex patient casework.
4.5 credits
Prerequisites: PHID 1609 Integrated Sequence 9; PPRA 1607 Professional Skills Development 7; completion of or concurrent enrollment in PPRA 1701 Acute Care Management; PPRA 1708 Professional Skills Development 8

**PPRA 1776 Management 2**
This course prepares students to engage in the classic functions of a human resource manager in the pharmacy practice setting including planning, organizing, decision making, staffing, leading or directing, communicating, motivating and evaluating.
2 credits

**PPRA 1791 Advanced Community Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in the required APPE community course.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PPRA 1792 Advanced Acute Care Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in the required APPE acute care course.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PPRA 1793 Advanced Ambulatory Care Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in the required APPE ambulatory care course.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PPRA 1794 Advanced Health System Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in the required APPE health system course.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PPRA 1795 Patient Care Elective Advanced Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in four required APPE patient care courses and two additional APPE experiences. Only one experience may be a non-patient care experience.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PPRA 1796 Elective Advanced Pharmacy Practice Experience**
This course will build upon the foundation of the introductory pharmacy practice experiences provided in the PS-2 year and the didactic curriculum. Under preceptor supervision, the student participates in the four required APPE courses and two additional APPE experiences. Only one experience may be a non-patient care experience.
9 credits
Prerequisites: Passing grades in all PS-3 summer quarter didactic courses and an annual grade point average of 2.00 or above

**PSCI 1540 Pharmaceutical Calculations**
This course introduces the student to the mathematical skills needed for drug product dispensing and compounding of dosage forms essential to the practice of pharmacy. Topics covered include systems of measurement, units of strength, density, dosage calculations, aliquoting, isotonicity, milliequivalents, and osmolarity. Calculations for the preparation of specific dosage forms such as capsules,
suppositories, and parenterals will also be covered.

2 credits

PSCI 1541 Pharmaceutics 1
Pharmaceutics 1 & 2 are an integration of physical pharmacy, dosage forms, pharmacy calculations, and pharmaceutical compounding presented by dosage form classification. The course presents the principles important for the administration, preparation, stability, and performance of drug products. Pharmaceutics 1 is the first of two required courses in pharmaceutics for pharmacy students; specific dosage forms covered in this course include powders, capsules, tablets, suppositories, ointments, and transdermal patches.

4 credits
Prerequisites: PSCI 1540 Pharmaceutical Calculations

PSCI 1542 Pharmaceutics 2
Pharmaceutics 1 & 2 are an integration of physical pharmacy, dosage forms, pharmacy calculations, and pharmaceutical compounding presented by dosage form classification. The course presents the principles important for the administration, preparation, stability, and performance of drug products. Pharmaceutics 2 is the second of two required courses in pharmaceutics for pharmacy students; specific dosage forms covered in this course include solutions, suspensions, emulsions, aerosols, ophthalmics, and parenterals.

4 credits
Prerequisites: PSCI 1541 Pharmaceutics 1

PSCI 1564 Pharmacokinetics and Biopharmaceutics
This course introduces pharmacy students to the principles of biopharmaceutics and pharmacokinetics by exploring the relationships between physiology, mathematics, and pharmacokinetic theory and their clinical application. Students will learn how to calculate and interpret pharmacokinetic parameters, discuss and explain pharmacokinetic principles, assess factors that affect drug disposition, design and adjust drug dosage regimens, and predict and explain mechanisms involved in drug interactions.

4 credits
Prerequisites: PSCI 1542 Pharmaceutics 2

ELECTIVE COURSE DESCRIPTIONS

PPRA 1301/1302 Special Project/Research
These courses provide an opportunity for students to work with individual faculty mentors on projects of variable scope. Activities may include clinical, library, laboratory, and/or survey-type research; assistance with syllabus development for future elective courses; or other activities agreed on between the student and the mentor. All special projects/research require the approval of the appropriate department chair and Dean.

PPRA 1301: 1.5 credits
PPRA 1302: 3 credits

PPRA 1313 Managing Prescription Benefits
This course discusses major factors having direct and indirect influence on pharmaceutical benefits in the U.S. External forces (social, political, and economic) affecting medication use and the policy issues surrounding those forces are explored. Specifically, prescription benefits, reimbursement strategies, methods to manage medication use, the role of prescription benefit management organizations, and technology are examined. Where appropriate, guest lecturers address specific topics.

1.5 credits

PPRA 1329 Clinical Applications of PDAs in Healthcare
This course introduces the pharmacy student to Microsoft Pocket PC database applications and mobile computing that relate to the practice of pharmacy. The course also allows students to learn concepts and techniques for the systematic creation, storage, reproduction, distribution, and retention of patient records using the latest technologies in handheld computing.

1.5 credits

PPRA 1338 Pharmacy-Based Health Screenings
Through active participation in lecture discussions and workshops, the student will be prepared to implement health screening programs in pharmacy practice settings. The course focuses on risk factor assessment and hands-on experience with screening devices for cancer, cardiovascular disease, diabetes, and osteoporosis. The course also addresses regulatory requirements such as OSHA and CLIA and development of policies and procedures for screening programs.

1.5 credits

PPRA 1339 History of Pharmacy in the United States
This course is designed to introduce the pharmacy student to the history of pharmacy. This will be accomplished by focusing upon the historical development of pharmacy in the United States by examining the growth and professionalization of the field, its statutory regulation and its product development. Students will be able to apply the lessons of history to current and future practice philosophies.

1.5 credits

PPRA 1346 Diabetes: A Patient’s Perspective
This elective emphasizes the knowledge and skills required for the delivery of diabetes education by focusing on the patient’s perspective in the management of the disease. The course builds on the material presented in required courses in the curriculum by examining the barriers faced by patients during self-management and potential solutions for addressing them.

1.5 credits
Prerequisites: PHID 1503 Integrated Sequence 3
PPRA 1348 Personal Finance for the Healthcare Professional
The objective of this course is to introduce the tools needed to financially succeed after graduation. The class will focus on introduction to the areas of taxes, planning for retirement, investing, debt consolidation, home ownership, money management, and insurance. Students will complete two assignments and have an in-class final exam. 1.5 credits

PPRA 1349 Medication Management in Hospice Patients
This course is designed to provide an overview of common diseases and symptoms encountered in terminal patients. Emphasis will be placed on the appropriate selection of medications to palliate symptoms such as pain, dyspnea, excess secretions, constipation, diarrhea, hiccups, pruritus, etc. Common diseases include but are not limited to, breast, brain, lung, colon and renal cancers; COPD; dementia; and CHF. Patient cases will be used during each session to illustrate symptom management issues. 1.5 credits
Prerequisites: PHID 1607 Integrated Sequence 7

PPRA 1350 Journal Club
The goal of this course is for students to improve their ability to find and evaluate recently published information on medications. Each student will give two presentations: one of a newly approved medication and one of a recently published study. Grades will be based on presentations and participation. Enrollment will be limited to 10 to 15 students so the course can be offered as a weekly small group discussion. 1.5 credits
Prerequisites: PPRA 1676 Evidence-Based Healthcare

PPRA 1411 Pharmacological Management of Chronic Pain
Upon completion of this course students will understand how to assess pain; understand the differences between addiction, dependence and tolerance; be able to recommend appropriate medication therapies for nociceptive and neuropathic pain; understand the reasons for the multitude of available analgesic choices; understand the role of complementary and alternative medicine; and be conversant with the legal and ethical issues of pain management. 1.5 credits
Prerequisites: PHID 1607 Integrated Sequence 7

PPRA 1413 Introduction to Geriatrics
This elective course is designed to enhance students' knowledge and skills in senior care pharmacy. The course will provide an introduction to general principles of aging and an overview of geriatric syndromes. Topics include pharmacokinetic and pharmacodynamic changes, inappropriate medications and Beers Criteria, falls, weight disorders, and syncope. Students are evaluated on weekly drug regimen review assignments along with a senior interview activity and comprehensive final exam. 1.5 credits
Prerequisites: PHID 1503 Integrated Sequence 3

PPRA 1414 Political Advocacy and Leadership
Political advocacy and leadership are highly valued in the profession of pharmacy. This elective course provides the requisite knowledge, develops skills, and models behaviors so students can become political advocates and leaders in the profession. The course has three core areas of interest: the legislative process, the advocacy process, and leadership skills. To meet the learning objectives, students will complete written and verbal activities to assess knowledge, skills, and abilities. 1.5 credits
Prerequisites: PPRA 1591 Introduction to Pharmacy Practice

PPRA 1415 Rare and Interesting Diseases
This course provides a forum for students to learn how to manage patients with rare and interesting disease states. The pathophysiology, epidemiology, clinical manifestations, diagnostic tests or procedures, treatment and the pharmacist’s role in the management for each disease state/genetic abnormality/adverse drug event will be reviewed. The course simulates clinical practice; professional/respectful/civil behavior is expected of all students and professional dress is encouraged. Activities will simulate patient work up and written/oral presentations in clinical practice. 1.5 credits
Prerequisites: Completion of or concurrent enrollment in PHID 1609 Integrated Sequence 9

PPRA 1416 Patient Safety and Quality Assurance
Examination of medication errors, including the causes and a system of continuous quality improvement. In addition the course examines financial risks, including insurance as a tool for risk shifting. The students are taught how to identify risks of a medication error and how to design and implement a continuous quality improvement program. 1.5 credits
Prerequisites: PPRA 1694 Introductory Community Experience; PPRA 1695 Introductory Institutional Experience; or some pharmacy practice experience (community, hospital or long term care) and permission of the coordinator.

PPRA 1417 Anticoagulation in Clinical Practice
This elective course provides students with an overview of the major topics in anticoagulation management encountered in clinical practice. Topics may include prophylaxis and treatment of venous thromboembolism (VTE), anticoagulation in various disease states, anticoagulation in special patient populations, and treatment plans requiring modification of anticoagulation. Students will develop a working knowledge and skill set helpful in providing pharmacy-managed anticoagulation services in both the
PPRA 1418 Nuclear Pharmacy
This course provides the student an overview of the various aspects of nuclear pharmacy. This includes basic nuclear physics, radiation measurement and safety, regulatory considerations, radiopharmaceutical preparation, products, quality control, and imaging modalities.
1.5 credits
Prerequisites: PSCI 1564 Pharmacokinetics and Biopharmaceutics

PPRA 1419 Topics in Women’s Health
The purpose of this course is to provide an overview of advanced topics in women’s health particularly related to reproductive health. Expanded information in topics such as contraception, infertility, drug use in pregnancy, and mood disorders related to pregnancy are provided. The course utilizes various teaching methods including lectures, case studies, readings, assignments, and discussions. Students will develop a working knowledge to aid them in caring for women with gender related disease states.
1.5 credits
Prerequisites: PHID 1503 Integrated Sequence 3

PPRA 1420 Pharmacy Based Immunization Delivery
This course teaches the skills necessary to become a primary source for vaccine information and administration. It teaches the basics of immunology and focuses on practice implementation and legal/regulatory issues. Students are responsible for the required fee (currently $90). Students must complete 12 hours of self-study prior to the class and must submit the completed material upon arrival to class. If s/he has not completed the study materials, the student will not be allowed to attend the workshop and will not be given a refund.
1.5 credits
Prerequisites: MICR 1553 Immunology; and blood borne pathogen training.

PPRA 1421 Dental Health and the Pharmacist
This course provides an overview of dentistry and its relation to healthcare. Discussion includes questions that pharmacists often are asked regarding oral lesions, injuries to the oral cavity, and efficacy of OTC remedies. Information about various dental specialties will help the pharmacist refer their patients to the appropriate specialist. Misuse and abuse of dental drugs and medications and investigation and enforcement of dental regulations concerning drug abuse will be discussed.
1.5 credits

PPRA 1422 Principles of Pharmacoeconomics for Pharmacists
Pharmacoeconomics is the study of the costs and contributions of drug therapy to healthcare systems and society. The purpose of this course is 1) to introduce pharmacoeconomics to pharmacy students and 2) to present a theoretical perspective on the role of pharmaceuticals in healthcare as well as various techniques, tools, and strategies to evaluate the economic contributions of specific drug therapies at a policy level and for individual patient needs. The course will rely heavily on review and critical analysis of existing pharmacoeconomics studies.
1.5 credits
Prerequisites: PSCI 1542 Pharmaceutics 2

PPRA 1423 Advanced Infectious Diseases
This course is an expansion of the key issues found in the practice of infectious diseases pharmacotherapy. Topics may include, but are not limited to pneumonias, fungal infections, skin and soft tissue infections, MRSA, Clostridium difficile, the clinical microbiology laboratory, and home infusion services. The course will incorporate self-directed learning, lecture, and group case discussion.
1.5 credits
Prerequisites: PHID 1608 Integrated Sequence 8

PPRA 1424 Trials and Tribulations
This course involves evaluating recently published literature and applying that information to patient cases. It is taught in the “team-based learning” format, which involves an individual quiz, followed by a group quiz, followed by a group application activity (typically, development of a SOAP note). A different disease state will be the focus each week. Grades will be determined based on in-class activities and no exams will be given.
1.5 credits

PPRA 1425 Nutrition and Lifestyle Modification in Pharmacy
This elective course provides students with an overview of the major nutritional problems in the United States with emphasis on lifestyle modification and counseling that can be done for each disease state or topic. Topics include obesity, diabetes, cardiovascular disease, cancer, and sport enhancement. This course utilizes a team based learning method with assessment being based on team and individual quiz and exam scores. This is a student-centered learning course designed to begin the process of lifelong learning for students as healthcare professionals.
1.5 credits

PPRA 1426 Putting Your Best Residency Foot Forward
Post-graduate pharmacy residency programs are highly valuable and are becoming increasingly competitive. This elective course provides guidance on the residency selection decision process, curriculum vita (CV) development, creation of a strong letter of intent and interviewing skills. To meet the learning objectives, students will complete interactive written and verbal activities to demonstrate knowledge, skills, and abilities. Achievement of learning objectives will be
evaluated by assessment rubrics tailored to each activity.
1.5 credits

**PPRA 1427 Postmenopausal Women’s Health**
This course provides an in-depth review of postmenopausal women’s health issues. Through active participation in patient case studies and class discussion, students will learn to design pharmacotherapeutic plans to address symptoms of menopause during the menopause transition and to reduce risk factors for chronic medical conditions common during this life stage.
1.5 credits
Prerequisites: PHID 1503 Integrated Sequence 3

**PPRA 1428 Acute Care Cardiology**
This elective course provides students with an in-depth review and expansion of knowledge regarding the management of medical pharmacotherapy in patients with acute cardiovascular issues, building upon concepts that were introduced in Integrated Sequence 4 and 5. The class is focused on application of knowledge to improve patient care. Learning techniques that will be utilized include lecture, discussion, formulation of a comprehensive medication management plan for patient cases, evaluation of primary literature, and student debates.
3 credits
Prerequisites: PHID 1604 & 1605 Integrated Sequence 4 & 5

**PPRA 1429 Pharmacometrics**
This course builds upon student’s expertise in pharmacoeconomics, pharmacoepidemiology, biostatistics, and financial management in order to evaluate from an evidence-based perspective both pharmacotherapy and pharmaceutical services. Students will obtain requisite expertise in applied econometrics, financial algebra, and policy analysis.
1.5 credits

**PPRA 1430 Parenteral & Enteral Nutrition**
This course focuses on the clinical aspects of nutrition support therapy for patients who cannot maintain adequate nutrition by the oral route. Clinical topics include indications, patient assessment, ordering, administering, monitoring, and adverse effects of both parenteral and enteral nutrition (PEN) support. Patient safety in hospital and home PEN, drug shortages, and recent advances and research in PEN will be discussed.
1.5 credits

**PPRA 1431 Book Club**
This professional elective course is designed to use a book club/current topics format to provide the pharmacy student with an introduction to the art of patient care and the issues healthcare providers face regarding their own biases and stereotypes. The purpose of this course is to thoughtfully tackle some of the assumptions we make as health care providers and explore ways to be more thoughtful in our decisions and care of our patients.
1.5 credits

**PPRA 1432 Advanced Communication with The Spanish Speaking Patient**
This elective will develop the basic verbal and written skills required to effectively communicate with the Spanish speaking patient in the pharmacy setting. There will be a strong focus on patient interview skills and counseling on the most common topics seen in the community setting. This course assumes the student is already familiar with basic Spanish and therefore introductory level Spanish
1.5 credits
Prerequisites: PPRA 1501-1504 Professional Skills Development 1-4; one year of college level Spanish or equivalent, or permission from instructor

**PSCI 1301/1302 Special Project/Research**
These courses provide an opportunity for students to work with individual faculty mentors on projects of variable scope. Activities may include clinical, library, laboratory, and/or survey-type research; assistance with syllabus development for future elective courses; or other activities agreed on between the student and the mentor. All special projects/research require the approval of the appropriate department chair and Dean.
Prerequisites: PSCI 1301: 1.5 credits; PSCI 1302: 3 credits

**PSCI 1306 Dangerous Plants and Animals**
This course focuses on the recognition and identification of dangerous plants and animals found primarily, but not exclusively, in Arizona. Students learn to assess poisoning situations and recommend management scenarios. Lectures and workshops involving case studies and field trips are utilized.
1.5 credits

**PSCI 1319 Medical Spanish**
This course provides students with the communication skills necessary to provide care to the Spanish-speaking patient. Upon completion, students will have an expanded general Spanish vocabulary (selected nouns, verbs, adjectives, phrases, etc.) plus one related specifically to the practice of pharmacy (i.e., parts of the body, drug formulations, selected disease conditions, etc.). Group interaction and role-playing are utilized. The course is directed at students not fluent in Spanish.
1.5 credits

**PSCI 1323 Use and Abuse of Drugs**
This elective course provides an in-depth review of neuropharmacology of substances of abuse including stimulants, depressants and inhalants, ethanol, opioids, hallucinogens, marijuana, anabolic steroids and other performance enhancing drugs. In addition, an overview of
drug use, drug use as a social problem, drug products and their regulations, the nervous system, the mechanism of action of drugs, preventing substance abuse and substance abuse and dependence will also be covered.

1.5 credits
Prerequisites: PHID 1503 Integrated Sequence 3

PSCI 1342 Introduction to Classical Homeopathy
The use of complementary and alternative medicine (CAM) is rapidly growing in the U.S. This elective provides an overview of the CAM, homeopathy. Topics include history, philosophy, research, pharmacy, and acute case taking. Students will learn OTC usages for common remedies. Student participation and class discussion are strongly emphasized.

1.5 credits

PSCI 1347 Pharmaceutical Formulation and Analysis
Pharmaceutical Formulation and Analysis is a supplement to Pharmaceutics 1 & 2. This elective course is hands-on, lab-based course that integrates the fundamental pharmaceutics concepts underlying drug product formulation and analysis with the practice of pharmacy compounding. This integration is critical in helping pharmacy compounders understand the importance of product quality and how multiple variables may affect the quality of their products.

1.5 credits
Prerequisites: PSCI 1542 Pharmaceutics 2

PSCI 1354 Sterile Products
This course covers the fundamental concepts related to the formulation, manufacture, quality assurance, and clinical preparation and administration of sterile products. Topics will include formulation and compatibility considerations, sterility assurance and aseptic technique including a review of USP Chapter <797>, packaging, compounding methods and calculations, therapeutic issues, and advances in parenteral technologies. Laboratory sessions will focus on aseptic technique and familiarization with equipment used to prepare and administer parenteral medications.

1.5 credits
Prerequisites: PSCI 1542 Pharmaceutics 2

PSCI 1356 Nanopharmaceuticals
Nanotechnology will revolutionize society in the twenty-first century. The medical application of nanotechnology to all aspects of prevention, diagnosis and therapy of human disease has given rise to nanomedicine. This course will focus on nanoscale drug formulations currently under development. Participants will become familiar with the state-of-the-art of pharmaceutical nanotechnology and acquire a foundation that will enable them to understand upcoming changes that nanoscience will bring to their future profession.

1.5 credits
Prerequisites: PSCI 1542 Pharmaceutics 2

PSCI 1357 Introduction to Forensic Science for Healthcare Professionals
The use of forensic toxicology in the battle against the increased abuse of licit and illicit drugs is an important field of study. This course will introduce the main areas of forensic sciences and especially the involvement of physicians, pharmacists, and nurses in discovering and preventing the abuse of drugs.

1.5 credits
Prerequisites: PPRA 1524 Pharmacy Law and Public Policy

PSCI 1358 Pharmacogenomics
Pharmacogenomics has the potential to revolutionize medicine in the twenty-first century. The medical application of human genetics to pharmacotherapy has given rise to the new field of pharmacogenomics. This course will introduce the foundations of pharmacogenomics, discuss the origin of genetic variation on drug action, uptake and metabolism, and specific applications to patient care. Participants of this course will become familiar with the state-of-the-art of pharmacogenomics.

1.5 credits

PSCI 1359 Principles of Pharmacy Research Design and Problem Solving
This is an introductory course in research methods and proposal writing. The course is designed to give students experience in hypothesis and specific aims development and an overview of the use of the scientific study design for solving health/drug-related problems, as well as research methodology and research proposal development. The overall format of the course integrates the didactic lecture material, and research project assignments to provide students with an interactive “how to” learning experience during which they receive feedback on their work.

1.5 credits

PSCI 1360 Introduction to Drug, Biologics and Medical Device Regulation
The course will provide an overview to the FDA regulatory processes regarding the evaluation and development of drug, biologics, and device products. Through interactive lecture format, course work and discussions, participants of this course will gain the basic understanding, and will become familiar with the current principles of regulatory affairs. Topics include the historical development of U.S. drug laws, overview of drug, biologics, and device development process and the FDA, pharmaceutical industry-FDA functions and interactions through approval and monitoring processes, policy-guided science, and some examples of the development of U.S. drug/device laws, shaping history, leading into the present state of regulation.

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.

Student Promotion and Graduation Committee
The Student Promotion and Graduation Committee (SPGC) is composed of members of the College faculty and a representative from the Office of the Dean. This Committee is responsible for enforcing the published academic and professional standards established by the faculty and for assuring that they are met by all students. As such, this Committee establishes the criteria, policies, and procedures for student advancement, deceleration, academic probation, dismissal, and graduation. This Committee meets at a minimum at the end of each academic quarter to review the academic progress and performance of students enrolled in the program in relation to institutional academic policies. At the end of the academic year, the Committee assesses the academic and professional progress and performance of each student. Additionally, the Committee will recommend revisions of academic and professional standards, and criteria for student advancement, deceleration, academic probation, dismissal, and graduation to the faculty for adoption. Finally, the Committee also identifies and recommends candidates for graduation to the MWU Senate.

If the student’s progress is satisfactory, the student is promoted to the next academic year, provided all tuition and fees have been paid. If a student fails to make satisfactory progress in completing the prescribed course of study, the Committee shall recommend to the Dean or his designee appropriate action to correct the deficiency(ies). In instances involving more than one failure of a student to maintain satisfactory academic/professional progress, the Committee may recommend dismissal.

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

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

When a student fails to make satisfactory progress in completing the prescribed course of study, the Office of the Dean will notify the student, in writing (i.e., e-mail), at least two working days in advance of the Committee meeting. The student will be offered an opportunity to appear before the Committee (in person or via telephone) in order to present his/her case. In such instances, the student shall inform the Office of the Dean, 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 the involved student only and not to any other individuals. The SPGC will make a recommendation on a course of action to the Dean or his designee. Within two working days following the Committee meeting, the Office of the Dean is responsible for providing notification in writing (i.e., e-mail) to the involved student, informing him/her of the recommendation of the Committee and the Dean’s or his designee’s decision.

Academic Standards for the Pharm.D. Program
An annual didactic grade point average will be used as the primary measure of academic performance. It is calculated from all didactic courses for a particular professional year. Grades earned for courses prior to matriculation in the professional program and grades earned for courses taken at another institution while enrolled in the professional program are not included in the calculation of this annual grade point average.

Academic Policies for Students Who Matriculated in Summer 2012 or Thereafter
Students must maintain an annual grade point average of 2.00 in their professional program to remain in good academic standing. If a student earns a grade of “F” in one course or pharmacy practice experience, the student is notified, in writing, that he/she is being placed on academic probation for the remainder of the academic year. Academic probation represents notice that continued inadequate academic performance may result in dismissal from the College. Additionally, he/she will be remanded to the SPGC. The SPGC will make a recommendation on a course of action. The recommendation may include, but not be limited to, an extended program of study or dismissal.

If the student enters an extended program of study, he/she must repeat all courses or pharmacy practice experiences in that year in which a grade of “F” was received. A student is allowed to go through an extended program only once. The pharmacy practice experiences are subject to availability of sites as determined by the Office of Experiential Education. Placement of a student on the extended program
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. If the student does not meet the criteria for successful academic performance at the end of the extended program, the student may be dismissed.

To be returned to good academic standing after completion of an extended track year, a student must have successfully repeated all courses or pharmacy practice experiences in which a grade of “F” was received.

A student who completes the extended program is defined as a reentering student as the student reenters the next professional year curriculum and resumes a normal course load. A reentering student who earns a grade of “F” in one course or pharmacy practice experience may be dismissed from the College. The following policies also guide decisions made by the committee:

1. Students must successfully resolve all “I” (incomplete) grades before beginning pharmacy practice experiences.
2. To proceed to pharmacy practice experiences, a student must have earned a passing grade in all didactic courses with an annual grade point average of 2.00 or above. Eligibility for introductory pharmacy practice experiences is determined by the annual grade point average calculated from all courses in the PS-1 year. Eligibility for advanced pharmacy practice experiences is determined by the annual grade point average calculated from all courses in the PS-3 summer quarter.

Extended Program for Students Who Matriculated in Summer 2012 or Thereafter

Problems may arise that may necessitate a restructuring of a student’s academic course load. Accordingly, an individual’s academic course load may be reduced so that the student enters what is termed an extended track repeat year program. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by one additional year. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met:

1. Personal hardship. If a student is experiencing unusual stresses in life and a decreased academic load could alleviate added stress, the student may petition the SPGC 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 recommending a student’s request for an extended program to the Dean. The Dean is responsible for reviewing and assessing the committee’s recommendation, and then notifying the student of a decision.

2. Academic. As described above, a student that earns a grade of “F” in one course or pharmacy practice experience will be required to repeat the course or pharmacy practice experience from that year in which “F” grades were received. A student may be placed on an extended program for academic reasons at the discretion of the SPGC. 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.

Academic Policies for Students Who Matriculated Prior to Summer 2012

A student must maintain an annual grade point average of 2.00 in their professional program to remain in good academic standing. A student is placed on academic probation for any of the following reasons:

1. A student’s annual grade point average is below 2.00;
2. A student earns a grade of F in one or more courses;
3. A student earns a grade of D in two or more courses in an academic year;
4. A student fails to earn a grade of C or better on a pharmacy practice experience.

A student is notified, in writing, that he/she is being placed on academic probation for the remainder of the academic year. Academic probation represents notice that continued inadequate academic performance may result in dismissal from the College. Additionally, he/she will be remanded to the SPGC. The SPGC will make a recommendation on a course of action. The recommendation may include, but not be limited to remediation, an extended program of study or dismissal.

If the student enters an extended program of study, he/she must repeat all courses or pharmacy practice experiences in that year in which grades of D or F are received. A student is allowed to go through an extended program only once. The pharmacy practice experiences are subject to availability of sites as determined by the Office of Experiential Education. Placement of a student on the extended program 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. If the student does not meet the criteria
or both of the following conditions must be met:

A student who completes the extended program is defined as a reentering student as the student reenters the next professional year curriculum and resumes a normal course load. A reentering student who earns an annual grade point average below 2.00, a grade of F in one or more courses, a grade of D in two or more courses in an academic year or fails to earn a grade of C or better on a pharmacy practice experience may be dismissed from the College. The following policies also guide decisions made by the committee:

1. Students must successfully resolve all I (incomplete) grades before beginning pharmacy practice experiences.
2. To proceed to pharmacy practice experiences, a student must have earned a passing grade in all didactic courses with an annual grade point average of 2.00 or above. Eligibility for introductory pharmacy practice experiences is determined by the annual grade point average calculated from all courses in the PS-1 year. Eligibility for advanced pharmacy practice experiences is determined by the annual grade point average calculated from all courses in the PS-3 summer quarter.

Extended Program for Students Who Matriculated Prior to Summer 2012
Problems may arise that necessitate a restructuring of a student’s academic course load. Accordingly, an individual’s academic course load may be reduced so that the student enters what is termed an extended track repeat year program. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by one additional year. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met:

1. Personal hardship. If a student is experiencing unusual stresses in life and a decreased academic load could alleviate added stress, the student may petition the SPGC for an extended program. This petition is not automatically granted and is approved only in exceptional circumstances. The committee is responsible for evaluating the petition and submitting a recommendation concerning a student’s request for an extended program to the Dean. The 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 will be required to repeat courses or pharmacy practice experiences 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 SPGC. 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.

Class Standing
To achieve the status of a second year student in the professional program (PS-2), students must have successfully completed all requisite PS-1 courses and earned an annual didactic GPA of 2.00. To achieve the status of a third-year student in the professional program (PS-3), students must have successfully completed all requisite PS-2 courses, the two introductory rotations, and earned an annual didactic GPA of 2.00.

Dean’s List
Following each quarter, the College of Pharmacy-Glendale recognizes students for the Dean’s List who have distinguished themselves by achieving a GPA of 3.50 or better for the quarter. This applies for full-time didactic coursework only.

Dismissal
A student may be dismissed from the College for academic reasons upon the recommendation of the SPGC. 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.

Appeal Process (for dismissals or extended program actions)
Following notification of a decision for dismissal or extended program, a student may appeal, in writing, the decision to the Dean. Such appeals must be received by the Dean within 3 working days after the student is officially notified of the dismissal or extended program decision. A narrative explaining the basis for the appeal should accompany the
An appeal must be based on one of the following premises:

1. Bias of one or more members of the Student Promotion and Graduation Committee.
2. Material, documentable information not available to the Committee at the time of its initial decision.
3. Procedural error.

The Dean will review the appeal request and decide if there is sufficient information to convene a meeting of the Student Promotion and Graduation Committee, which would be asked to provide a recommendation to the Dean on the appeal request. Once a decision is made to convene a Committee meeting, the student requesting an appeal shall be notified in writing (i.e., e-mail), by the Office of the Dean at least two working days in advance of the scheduled Committee meeting in which the student’s appeal will be heard. The student will be offered an opportunity to appear before the Committee (in person or via telephone) in order to present his/her case. In such instances, the student shall inform the Office of the Dean, 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 the involved student only and not to any other individuals. The Committee submits its recommendation to the Dean. Upon receipt of the Committee’s recommendation, the Dean makes the final decision on all appeals.

The student must attend all didactic classes in which they are registered until the appeal process is complete. Students registered in a rotation course may be placed on a mandatory leave of absence until the appeal process is finalized.
Grades
The following includes all grading options and corresponding definitions that may be issued within CPG. The letter grades and quality points per credit are as follows for students that matriculated in summer 2012 or thereafter.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.000</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>3.670</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.330</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.000</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>2.670</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.330</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.000</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>0.000</td>
<td>An Incomplete (I) grade may be assigned by an instructor when a student’s work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an &quot;I&quot; grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 calendar days starting from the last day of final examinations for the quarter.</td>
</tr>
<tr>
<td>IP</td>
<td>0.000</td>
<td>An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.</td>
</tr>
<tr>
<td>P</td>
<td>0.000</td>
<td>Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of &quot;P&quot; is counted toward credit hour accruals for graduation but does not affect GPA calculations.</td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td>Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of &quot;F&quot; is counted toward credit hour accruals as attempted but not completed. Grade of &quot;F&quot; is calculated into the GPA (quality points are lowered due to unsuccessful course completion).</td>
</tr>
<tr>
<td>W</td>
<td>0.000</td>
<td>Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.</td>
</tr>
<tr>
<td>W/F</td>
<td>0.000</td>
<td>Withdrawal/Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the Program/School. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. W/F may be considered as a failure by a Student Academic Review Committee. Multiple F’s and W/F’s can be grounds for dismissal.</td>
</tr>
<tr>
<td>AU</td>
<td>0.000</td>
<td>This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.</td>
</tr>
<tr>
<td>AP</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>
<td></td>
</tr>
</tbody>
</table>
The letter grades and quality points per credit are as follows for students admitted prior to summer 2012.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal with no penalty and no credit</td>
</tr>
<tr>
<td>W/F</td>
<td>Withdrawal/Failing</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete course work</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
</tr>
<tr>
<td>AP</td>
<td>Advanced Placement</td>
</tr>
</tbody>
</table>

**Graduation Honors**
Graduation honors are awarded to candidates for the Doctor of Pharmacy degree who have distinguished themselves by virtue of high academic achievement while enrolled in a professional program of the College. Only grades from didactic courses taken at the College will be included in determining graduation honors. Degrees with honor are awarded based on the level of academic achievement as follows:

- **Summa cum laude** for a grade point average greater than 3.90
- **Magna cum laude** for a grade point average between 3.75 and 3.89
- **Cum laude** for a grade point average between 3.50 and 3.74

**Grades & Grade Point Average for Students Who Matriculated Prior to Summer 2012**
Courses are recorded in terms of quarter hour(s) of credit. Multiplication of the credits for a course by the numeric value for the grade awarded gives the number of quality points earned for a course. Dividing the total number of quality points earned in courses by the total number of credits in those courses gives the grade point average.

Grades reported as “W”, “WF”, and “P” are recorded on a student’s permanent record but are not used in the calculation of a student’s grade point average. Similarly, a grade of “I” or “IP” may be assigned and is used only when special/extenuating circumstances exist (i.e., prolonged illness, family crisis, etc.), which prevent a student from completing the necessary course requirements on time, in order to receive a grade.

Any request for an extension to complete required course or pharmacy practice experience requirements must be approved first by the course coordinator responsible for the course or pharmacy practice experience. Unless otherwise specified, a grade of “I” must be resolved within 10 days from the end of the quarter or pharmacy practice experience or the incomplete grade is automatically converted into a grade of “F”, which signifies failure of the course or pharmacy practice experience. It is the responsibility of the student when receiving an incomplete grade to complete all of the course requirements within this time, unless otherwise specified.

If a student receives a failing grade (“F”) in a course or pharmacy practice experience, that grade will be recorded on his/her transcript. This deficiency may be corrected as recommended by the Student Promotion and Graduation Committee. The permanent record of the student will be updated to indicate that the failing grade has been successfully corrected following either successful re-examination or repetition of the course or pharmacy practice experience.

If course re-examination was completed, a minimally passing grade is registered in place of the “F”, and the student’s cumulative grade point average will reflect the change. If a student is unsuccessful at re-examination, the grade of “F” will remain. If a student repeats a course, the course is entered twice in the permanent record of the student. The grade earned each time in the course is recorded, but only the most recent grade is used in the computation of the student’s cumulative grade point average. When a course is repeated, the student may earn any grade that is within the grading scale for the course.

A student’s academic standing is determined on the basis of his/her grade point average. Inclusion on the Dean’s List, honors at graduation, placement on probation, and dismissal depend directly on the grade point average.

**Grades & Grade Point Average for Students Who Matriculated Prior to Summer 2012**
Courses are recorded in terms of quarter hour(s) of credit. Multiplication of the credits for a course by the numeric value for the grade awarded gives the number of quality points earned for a course. Dividing the total number of quality points earned in courses by the total number of credits in those courses gives the grade point average.
Grades reported as W and WF are recorded on a student’s permanent record but are not used in the calculation of a student’s grade point average. Similarly, a grade of I or IP may be assigned and is used only when special/extenuating circumstances exist (i.e., prolonged illness, family crisis, etc.), which prevent a student from completing the necessary course requirements on time, in order to receive a grade.

Any request for an extension to complete required course or rotation requirements must be approved first by the course coordinator responsible for the course or rotation. Unless otherwise specified, a grade of I must be resolved within 10 days from the end of the quarter or rotation or the incomplete grade is automatically converted into a grade of F, which signifies failure of the course. It is the responsibility of the student when receiving an incomplete grade to complete all of the course requirements within this time, unless otherwise specified.

If a student receives a failing grade (F) 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 1 of 2 ways: repetition or remediation of the course. The decision to permit a student to repeat or remediate 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 completed, a grade of D is registered in place of the F, and the student’s cumulative grade point average will reflect the change. If a student is unsuccessful at remediation, the grade of F will remain. If a student repeats a course, the course is entered twice in the permanent record of the student. The grade earned each time in the course is recorded, but only the most recent grade is used in the computation of the student’s cumulative grade point average. When a course is repeated, the student may earn any grade that is within the grading scale for the course.

A student’s academic standing is determined on the basis of his/her grade point average. Inclusion on the Dean’s List, honors at graduation, placement on probation, and dismissal depend directly on the grade point average.

**STUDENT ADMINISTRATIVE POLICIES**

**Absence Reporting Procedure**

In the event of serious 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 or class, a student must notify one of the following: CPG’s Office of the Dean, CPG department head, or course coordinator. To be excused from a rotation, the student must notify his/her preceptor and the Office of Experiential Education. Failure to notify the Office of Experiential Education will result in an unexcused absence and policies detailed in the Experiential Education Manual will apply. Assuming that there is a legitimate reason for a student’s absence, the CPG’s Office of the Dean will contact by e-mail or telephone the coordinators of courses in which the student will miss an examination, quiz, or graded assignment, or will send a letter to all appropriate course coordinators 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. It is the student’s responsibility to contact the course coordinator immediately upon his/her return for instructions regarding how the missed session can be made up. If a student fails to follow this procedure, the student is held responsible for the policies stated in course syllabi regarding unexcused absences. Unexcused absences may result in course failure.

**Requesting an Excused Absence for Personal/Professional Reasons**

The College recognizes that a student may need to be excused from class or rotations for non-illness, non-emergency-related reasons. An Absence Request Form must be completed at least 2 weeks prior to the day the student wishes to be excused. Forms are available in the Office of the Dean. Completion of the form by the student does not imply the student is excused from classes until the course directors of the affected courses approve the request.

**Advanced Standing**

All requests for advanced standing by newly admitted, transfer, or enrolled students are processed on a course-by-course basis by the Office of the Dean. To request such consideration, a student must submit a letter of request and the request form to the Office of the Dean in which the student lists a course(s) previously taken at an accredited college or university, which might be similar in content to a professional course(s) that he/she is scheduled to take. The student must also provide an official course description(s) and a syllabus (syllabi) of the course(s) previously taken. All requests must be submitted at least 3 weeks prior to the start of the course being considered. For APPEs, all requests must be submitted at least 6 months prior to the first day of the specific APPE that the student is seeking to be excused from. 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.

**Course Prerequisites**

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

**Dress Code for Pharmacy Practice Experiences**

Dress requirements for experiential rotations are delineated in the experiential program manual. Students are advised that professional attire is required. Students will be notified if professional attire is required for college functions and/or courses. Course syllabi will state if professional attire or a dress code is in effect for the course.

**Faculty Advisor Program**

CPG assigns a faculty advisor to students in each entering class. In addition to these faculty advisors, the CPG Dean, Assistant/Associate Dean and the Dean of Students, as well as other faculty members and professional staff, are also available to assist students with academic advising, counseling, and enrichment. Students are assigned a faculty advisor selected from the faculty of CPG.

Students are placed into groups upon entry into the College. Each group of students is assigned a faculty advisor who will mentor them throughout the program. Faculty advisors act as liaisons between the faculty and students. Their responsibilities include:

1. Serve as the student’s advisor and academic/professional counselor;
2. Oversee and monitor the academic progress and professional growth of the student;
3. Assist the student in seeking academic and personal counseling services provided by the institution;
4. Serve as an advocate for the student; and
5. Counsel the student during his/her selection of a career within the pharmacy profession.

**AWARDS**

Availability of awards is subject to continued support by the sponsoring organization.

**APhA Academy of Students of Pharmacy Mortar and 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 their academic pharmacy career. The winner is eligible to compete in an essay competition to receive a monetary award to be used for professional development activities.

**APhA-ASP Senior Recognition Certificate**

The Academy of Students of Pharmacy Chapter presents this certificate each year to a senior who has made outstanding contributions to the chapter.

**ASHP Student Leadership Award**

Each year the American Society of Health-Systems Pharmacists provides a leadership award to a student who has demonstrated qualities of leadership through involvement with ASHP activities. The student receives a monetary award and a copy of the ASHP Drug Information reference.

**College Awards for Excellence**

Each year plaques are presented to outstanding students in the areas of medicinal chemistry, pharmaceutics, pharmacology, therapeutics, and pharmacy administration.

**Facts and Comparisons Award of Excellence in Clinical Communication**

A set of reference texts are presented to the graduating student who has demonstrated superior verbal and written clinical communication skills.

**Midwestern University College of Pharmacy-Glendale Excellence in Professional Skills Development Award**

A certificate is presented to the graduating student exhibiting excellent patient care skills.

**Henry J. Goeckel Kappa Psi - Grand Council Scholarship Key and Certificate**

Kappa Psi Pharmaceutical Fraternity provides a Grand Council Scholarship Key and Certificate to a graduating Kappa Psi brother that graduates with first honors. The student receives a 14K-gold scholarship key and certificate from the Kappa Psi Council in recognition of his/her academic achievement.

**Midwestern University College of Pharmacy-Glendale Excellence in Service Award**

The 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.

**Midwestern University College of Pharmacy-Glendale Excellence in Pharmacy Award**

A certificate is presented to the graduating student who has demonstrated outstanding achievement in the provision of drug information services.

**National Community Pharmacist Association (NCPA) Outstanding Student Member Award**

A plaque is presented each year by the NCPA in recognition of a student’s entrepreneurial spirit and commitment to advancing independent community pharmacy practice.

**Natural Medicines Comprehensive Database Award**

A plaque and reference text are presented to a graduating student who has demonstrated an interest in the area of natural medicines.

**Natural Standard Research Collaboration Award**

A certificate and reference text are presented to a graduating student who perpetuates multidisciplinary, evidence-based research practices, healthcare communications, or information.
**Midwestern University College of Pharmacy-Glendale Communications Award**
A certificate is presented to the graduating student who has demonstrated effective communication skills during his/her experiential rotations.

**The Robert C. Johnson Leadership Award**
This named award recognizes a graduating student who has been active in a leadership role and maintains an acceptable scholastic level. The student shall have actively participated in one or more student professional associations or demonstrated leadership in other capacities. The student is expected to undertake a project that contributes to patient care and/or for the advancement of the profession.

**SCHOLARSHIPS**
Availability of scholarships is subject to continued support by the sponsoring organization.

**CVS Charitable Trust, Inc. Scholarship**
The CVS Charitable Trust, Inc. provides scholarships to students interested in entering community pharmacy practice.

**The Midwestern University College of Pharmacy-Glendale Heritage of Pharmacy Scholarships**
One scholarship is presented each year to a student who has demonstrated academic achievement and professionalism.

**National Association of Chain Drug Stores Foundation Scholarship**
Monetary awards are presented to students who are interested in pursuing a career in community pharmacy.

**Pharmacists Mutual Companies Scholarship**
A scholarship is provided to a student who has demonstrated academic achievement.

**Safeway, Inc. Scholarship**
Safeway, Inc. provides scholarships to educationally disadvantaged students in their 2nd and 3rd year of professional study.

**Shopko Scholarship**
Shopko provides scholarships to students who have excelled in the pharmacy program.

**Target Scholarship**
Target provides scholarships to students that achieve academically, demonstrate financial need, and promote teamwork.

**Walgreen Pharmacy Scholarship**
The Walgreen Company provides scholarships to students who have demonstrated strong leadership and communication skills. These students must also have an interest in community pharmacy practice.

**Wal-Mart Pharmacy Scholarship**
Wal-Mart provides scholarships to students with strong leadership qualities and a desire to enter community pharmacy practice.

**FACULTY LIST FOR PHARMACY PRACTICE**

**Jeffrey F. Barletta, Pharm.D., FCCM**
Temple University
School of Pharmacy
Associate Professor

**Kelsey Buckley, Pharm.D., BCACP**
University of Iowa
School of Pharmacy
Assistant Professor

**Melinda J. Burnworth, Pharm.D., BCPS**
University of Missouri-Kansas City
School of Pharmacy
Associate Professor

**Stephanie J. Counts, Pharm.D.**
University of Arizona
College of Pharmacy
Associate Professor

**Lindsay E. Davis, Pharm.D., BCPS**
University of Arizona
College of Pharmacy
Assistant Professor

**Mary Gurney, Ph.D.**
University of Wisconsin-Madison
School of Pharmacy
Assistant Professor

**Stacy L. Haber, Pharm.D.**
South Carolina College of Pharmacy
Associate Professor

**Rebekah Jackowski, Pharm.D.**
University of Michigan
College of Pharmacy
Assistant Professor
Samantha Karr, Pharm.D., BCPS, BCACP
University of Florida
College of Pharmacy
Associate Professor

Nicole K. Kitts, Pharm.D., BCPS, CGP
University of Florida
College of Pharmacy
Assistant Professor

Sam Mahrous, Ph.D.
Northeast Louisiana University
Associate Professor

Nicole Murdock, Pharm.D., BCPS
Idaho State University
College of Pharmacy
Associate Professor

Lynn R. Patton, M.S., BCNSP
St. John’s University
College of Pharmacy and Allied Health Professions
Professor

Elizabeth Pogge, Pharm.D., BCPS, FASCP
University of Nebraska Medical Center
College of Pharmacy
Associate Professor

Erin C. Raney, Pharm.D., BCPS, BC-ADM
University of Arizona
College of Pharmacy
Associate Professor

Michael T. Rupp, Ph.D.
Ohio State University
College of Pharmacy
Professor

David A. Sclar, B. Pharm., Ph.D.
University of South Carolina
College of Business and College of Pharmacy
Chair and Professor

Laura Tsu, Pharm.D., BCPS
University of California-San Diego
Skaggs School of Pharmacy
Assistant Professor

Mitchell R. Emerson, Ph.D.
University of Kansas Medical Center
School of Medicine
Interim Dean and Associate Professor

Melanie A. Jordan, Ph.D.
Virginia Commonwealth University
Medical College of Virginia
Assistant Professor

Mark Olsen, Ph.D.
University of Texas
Associate Professor

Joie C. Rowles, Ph.D.
University of Texas Southwestern Medical School
Graduate School of Biomedical Sciences
Assistant Professor

Charles A. Veltri, Ph.D.
University of Utah
College of Pharmacy
Assistant Professor

Volkmar Weissig, Ph.D., Sc.D.
Martin Luther University -Halle
College of Advanced Technology
Chair and Professor

Mingyi Yao, M.S., Ph.D.
Creighton University
School of Medicine
Assistant Professor

FACULTY LIST FOR PHARMACEUTICAL SCIENCES

Bill J. Bowman, Ph.D.
University of the Sciences of Philadelphia
Philadelphia College of Pharmacy
Associate Professor

Tamer Elbayoumi, M.S., Ph.D.
Northeastern University
Bouve’ College of Allied Health Sciences
Assistant Professor
MISSION
The College of Health Sciences is dedicated to excellence in the education of professionals who will meet the healthcare and service needs of the community. This mission is expressed in the education, scholarship, and service objectives of the programs of the College of Health Sciences.

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.

Academic Monitoring
All students enrolled in the College of Health Sciences (CHS) are expected to:

1. Maintain satisfactory academic progress in their course of study;
2. Understand and meet all established program/school/College academic and professional requirements and standards as described in the course syllabi, program-related handbooks and manuals, University Catalog, and Student Handbook;
3. Self-monitor their academic performance in all required courses;
4. Complete all course-related requirements in a timely and satisfactory manner;
5. Seek assistance if encountering academic difficulty;
6. Contact the appropriate Program/School Director and/or course coordinator when performance has been unsatisfactory; and
7. Regularly check home or campus mailbox at least twice a week and university e-mail account daily for information concerning educational programs. This is particularly important at the end of the quarter and during quarter breaks when information concerning academic performance may be distributed.

Academic Review and Progression
The academic progress of 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/school/College. The academic review process occurs at three levels: the program/school-based Student Academic Review Committee, the College-based Student Promotion and Graduation Committee, and the CHS Dean.

Student Academic Review Committees
The Student Academic Review Committee of each program/school is appointed annually by the University Faculty Senate with the recommendation of the Program/School Director. Membership consists of three or more program/school faculty members and the Program/School Director (or his/her designee) who is the chair of this committee. The Dean of Students and the CHS Dean or his/her designee 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 progression of the student to the next quarter. If unsatisfactory, the committee recommends whether a student is placed on academic warning, academic probation, administrative probation, academic leave of absence, or is dismissed. These recommendations are forwarded to the student, the chair of the CHS Student Promotion and Graduation Committee, and the CHS Dean.

Following notification, a student may appeal the recommendation to the CHS Student Promotion and Graduation Committee. The CHS Student Promotion and Graduation Committee will review the student’s appeal and make a recommendation to the CHS Dean. The CHS Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices. The Dean makes the final decision on the action to be taken.
The Student Academic Review Committee also recommends for graduation students who have satisfactorily completed all degree requirements specified by their respective program/school. 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/School 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/School Directors, two faculty members from each program/school within CHS and four faculty members from the basic science departments (2 representatives from each campus). The Dean of Students and the CHS Dean or his/her designee are ex-officio members without vote. The CHS Dean appoints the co-chairs, one from each campus, of this committee. Each campus has a subcommittee of at least three members of the CHS Student Promotion and Graduation Committee and is chaired by the co-chair from each respective campus.

At the end of each academic year, each subcommittee reviews the recommendations from the individual Student Academic Review Committees and assesses the academic and professional progress and performance of each student. If satisfactory, the committee recommends promotion of the student. In addition, the subcommittees meet each spring and fall, or as needed, to recommend for graduation all students who have satisfactorily completed all degree requirements specified by their program/school. The subcommittee’s recommendations are forwarded to the CHS Dean and the University Faculty Senate for approval. These campus-based subcommittees also review student appeals of Student Academic Review Committee recommendations from their respective campus. The co-chairpersons of the committee are responsible for submitting minutes of each meeting to the CHS Dean.

**Satisfactory Academic Progress**

To achieve satisfactory academic progress, a student enrolled in a graduate degree program in the College of Health Sciences must pass all courses and maintain a minimum cumulative grade point average. For most programs in CHS, students are required to maintain a cumulative grade point average of 2.75 or higher. The following programs have exceptions to the minimum 2.75 GPA requirement and/or additional criteria for satisfactory academic progress.

**Arizona School of Podiatric Medicine (AZPod):** A student enrolled in Arizona School of Podiatric Medicine must pass all courses and maintain a cumulative grade point average of 2.00 or higher to have achieved satisfactory academic progress.

**Clinical Psychology (CP) Program:** A student enrolled in the Clinical Psychology Program must pass all courses and maintain a cumulative grade point average of 3.00 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a minimum grade of "B-" or "P" in all required courses, seminars, and practica. To progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

**Nurse Anesthesia Program:** A student enrolled in the Nurse Anesthesia Program must pass all courses and maintain a cumulative grade point average of 2.75 or higher to have achieved satisfactory academic progress. In addition, a student must achieve a "B-" or higher in all NAAP curriculum courses. NAAP courses include: 570, 580, 540, 540L, 551, 581, 541, 541L, 552, 560, 582, 542, 542L, 553, 571, 583, and all clinical rotation and clinical didactic component courses.

**Physician Assistant Program:** A student enrolled in the Physician Assistant Program must pass all courses and maintain a cumulative grade point average of 2.75 or higher to have achieved satisfactory academic progress. In addition, to progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

**Speech-Language Pathology (SLP) Program:** A student enrolled in the Speech-Language Pathology Program must pass all courses and maintain a cumulative grade point average of 3.00 or higher to have achieved satisfactory academic progress.
<table>
<thead>
<tr>
<th>Academic Progress</th>
<th>Usual Action</th>
<th>Transcript Notation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfactory professional behavior; no course failures; and cumulative GPA ( \geq 3.00 ) (CP, DHS, SLP) or ( \geq 2.75 ) (graduate programs) or ( \geq 2.00 ) (AZPod)</td>
<td>Allowed to progress to the next quarter</td>
<td>---</td>
</tr>
<tr>
<td>Satisfactory professional behavior; no course failures; and one quarter of cumulative GPA ( &lt; 3.00 ) (CP, DHS, SLP) or ( &lt; 2.75 ) (graduate programs) or ( &lt; 2.00 ) (AZPod)</td>
<td>Academic warning for the subsequent quarter</td>
<td>Academic warning is not noted on the transcript.</td>
</tr>
</tbody>
</table>
| Satisfactory professional behavior; one course failure; and/or two quarters of cumulative GPA \( < 3.00 \) (CP, DHS, SLP) or \( < 2.75 \) (graduate programs) or \( < 2.00 \) (AZPod) | Academic probation for the subsequent quarter. In addition, one or more of the following may apply:  
   a) Retake of the failed course if eligible and/or if the course is required  
   b) Academic leave of absence for up to one year until course is retaken or any requirements for re-entry established by the program have been met  
   c) Administrative probation | "F" grade is listed on transcript and is counted toward GPA calculation and total number of accumulated failures. Following successful retake of the course, the original "F" grade remains on the transcript as an "F" but is no longer factored into the GPA calculation. The new grade will be factored into the GPA. Academic probation is not noted on transcript. Academic leave of absence and administrative probation are noted on transcript. |
| Satisfactory professional behavior; one course failure; and/or one or more quarters of cumulative GPA \( < 3.00 \), and/or failure to meet any other established program academic requirements. | Extended program (Clinical Psychology-AZ)  
Note: Students on an extended program may be subject to academic LOA or dismissal after additional course failures or failure to maintain the required cumulative GPA. | --- |
| Satisfactory professional behavior; two course failures; and/or three quarters of cumulative GPA \( < 3.00 \) (CP, DHS, SLP) or \( < 2.75 \) (graduate programs) or \( < 2.00 \) (AZPod) | a) Academic leave of absence and academic probation, or  
b) Administrative probation and academic probation, or  
c) Dismissal  
Note: Two or more course failures will typically result in dismissal. | Academic leave of absence, administrative probation, and dismissal are noted on transcript. |

1 May be modified by the Student Academic Review Committee or the CHS Student Promotion and Graduation Committee.  
2 WF may be considered as a course failure by a Student Academic Review Committee.  
3 May or may not be preceded by academic warning/probation.

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 leave of absence, or is dismissed. Each Student Academic Review Committee reserves the right to modify its usual actions if there are extenuating circumstances.

Students will be notified by the CHS Dean when they are placed on academic warning as a result of their failure to achieve the required minimum cumulative GPA established by their program/school. Any student with academic deficiencies to be addressed by the Student Academic Review Committee shall be notified in writing with a delivery confirmation (i.e., next-day express mail, e-mail or hand-delivery) by the chair of the Student Academic Review Committee at least two working days in advance of the
probation typically occurs when the student fails a class or earns a cumulative GPA below the minimum required by his/her respective program/school for two quarters (which do not have to be consecutive) and/or when the student fails to meet any other established program academic requirements. Academic probation is not noted on the student’s transcript but is noted in the student’s academic file in the program/school office. The student remains on academic probation until the failure is successfully remediated and/or the cumulative GPA is at or above the program’s required minimum and all deficiencies have been corrected. Subsequently, when the student is returned to good academic standing, this is also noted in the student’s file.

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 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 Leave of Absence
Academic leave of absence may occur when a student has failed one or more courses, has accumulated two or more quarters when the cumulative GPA is less than required by his/her program/school, or has not met programmatic criteria required to proceed in the curriculum. Academic leave of absence may or may not be preceded by academic probation. This action results in the suspension of the student from all programmatic requirements. A mandatory academic leave of absence is noted on the student’s transcript.

The student who has been placed on a mandatory academic leave of absence does not have to re-apply for admission and is guaranteed reentry into 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.

Extended Program (for Clinical Psychology Program- Glendale)
For various academic or non-academic reasons, a restructuring of a student’s academic course load may be necessary. Accordingly, an individual’s academic course load may be reduced so that the student enters an extended
program. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by an additional year. A student is placed on an extended program by the Academic Review Committee.

If the extended program was established for academic reasons (course failure, a cumulative GPA less than 3.00 for one or more quarters, or failure to meet any other established program academic requirements), a student may return to good standing while on an extended program, as long as the student raises his/her GPA and does not fail any additional courses. If a student is placed on an extended program, such action does not modify or limit the actions of either the Program/School Student Academic Review Committee or the CHS Student Promotion and Graduation Committee. Thus, the student may be placed on an academic leave of absence or dismissed while on an extended program.

It is the responsibility of the chair of the Program/School Student Academic Review Committee to notify the CHS Dean and all academic support areas affected by this status change (e.g., Registrar, Office of Student Financial Services, Office of Student Services, etc.) whenever an extended program has been adopted and approved by the committee.

**Academic Dismissal**

A student may be dismissed from the College for academic reasons upon the recommendation of the Program/School’s Student Academic Review Committee. The dismissal is based on the determination 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/school. Students who accumulate two or more failures or three quarters below the minimum required grade point average usually receive a recommendation for dismissal. The course failures and/or the three-quarters with less than the required minimum cumulative GPA do not have to be consecutive.

**Retake of a Failed Course**

If a student passes a repeated course, the original failure remains on the transcript as an “F” and is included in the total number of accumulated failures in the student’s academic record. The grade from the original failed course is no longer used in the computation of the GPA following repeat of the course. The student may earn any grade in the repeated course and the new grade will be factored into the overall GPA.

Under exceptional circumstances, such as academic probation or administrative probation, a student may retake a Midwestern University course in which they have received a "C." The Program/School Director and the CHS Dean must approve this retake option. Typically, a maximum of three "C" courses can be retaken and a course may only be retaken once. The original "C" grade will remain on the transcript but will not be used in the computation of the GPA following the completion of the repeated course. The new grade will be factored into the overall GPA.

**Readmission After Dismissal for Poor Academic Performance**

It is at the discretion of each CHS academic program to readmit a student who has been dismissed for poor academic performance. To initiate the reapplication process, candidates must complete and submit a new application and proceed through the standard application process established by the program. Before reapplying, however, individuals should seek the advice of an admissions counselor. It is expected that the individual would have addressed documented deficiencies before reapplication and be able to demonstrate that he/she meets all admission requirements and technical standards of the program.

The program/school’s Admissions Committee will review completed applications of candidates and submit recommendations to the Program/School Director for action. The CHS Dean, via the Office of Admissions, then notifies applicants in writing of admission decisions.

No guarantee of readmission is implied, and questions related to advanced standing and similar issues will be addressed as they are for new applicants. Reapplications are allowed only within the first two years following dismissal, and readmission will be granted only once.

**Advanced Placement/Exemption from Coursework**

All requests for advanced standing by newly admitted or transfer students are processed on a course-by-course basis by the program/school’s Admissions Committee. To request such consideration, a student must submit a letter of request to the Program/School Director in which the student lists a course(s) previously taken which might be similar in content to a professional course(s) that he/she is scheduled to take. The student must also provide an official course description(s) and a syllabus (syllabi) of the course(s) previously taken. The Admissions Committee will share the submitted course materials with the appropriate basic science department (if applicable) to determine if the course(s) is an appropriate substitute. All requests must be submitted at matriculation. Each program/school determines the minimum letter grade of coursework for advanced standing. Typically, advanced standing will only be considered for coursework in which a letter grade of "C" or better has been earned. A "C-" letter grade is not acceptable for advanced standing consideration. Some programs/schools may have additional requirements. If the Admissions Committee denies the request for advanced standing, the student may appeal this decision to the CHS Dean.

**Appeal Process**

Following notification of a recommendation from the Student Academic Review Committee, a student may appeal the recommendation. He/she has three working days to submit a formal written appeal of the recommendation to the
CHS Student Promotion and Graduation Committee. The appeal must be submitted in writing and delivered to the appropriate campus co-chair of the CHS Student Promotion and Graduation Committee and the Office of the Dean within this three-day period. A narrative explaining the basis for the appeal should accompany the request. An appeal must be based on one of the following documented premises:

1. Bias of one or more members of the Student Academic Review Committee.
2. Material, documentable information not available to the committee at the time of its initial decision.
3. Procedural error.

The CHS Student Promotion and Graduation campus subcommittees will review student appeals from their respective campus. A majority of faculty members on each subcommittee must be from outside the program/school from which the student is appealing. One member of the appeal subcommittee must be from the student’s program/school and is a non-voting member. The subcommittee will review and assess the student’s appeal. Any student requesting an appeal shall be notified in writing with a delivery confirmation (i.e., next-day express mail, e-mail or hand-delivery) by the co-chair of the 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 subcommittee (in person or via telephone) to present his/her case. In such instances, the student shall inform the co-chair of the subcommittee, in writing (i.e., e-mail or hand-delivery), of his/her desire to appear before the subcommittee or his/her intent to waive this right. If the student chooses to appear before the subcommittee, this prerogative extends to the involved student only and not to any other individuals. After review of the appeal, the subcommittee co-chair submits the committee’s recommendation to the Dean and notifies the chair of the Student Academic Review Committee. The Student Academic Review Committee may also appeal the recommendation of the CHS Student Promotion and Graduation Subcommittee to the CHS Dean. The appeal must be submitted within three working days after notification of the CHS Student Promotion and Graduation Committee’s recommendation. Upon receipt of the Student Promotion and Graduation Subcommittee’s recommendation, the Dean makes the final decision, typically within ten working days, and then notifies the student, the chair of the Student Academic Review Committee and the CHS Student Promotion and Graduation Subcommittee, and all appropriate support offices.

Students must attend all didactic courses in which they are registered until the appeal process is complete. Students who fail a core or prerequisite course should consult with the Program/School Director regarding attendance in courses in the subsequent quarter. Students registered in a clinical course (rotation, practicum, etc.) may be placed on a mandatory academic leave of absence until the appeal process is finalized.

Auditing a Course for Remedial Purposes
The Student Academic Review Committee may determine that a student should be enrolled in a previously taken course on a temporary, audit basis. Under these circumstances, a student can attend classes and labs, receive handouts, and participate in exams to assess learning on an informal, non-graded basis. No course credits or grade may be earned for an audited course. Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Course Auditing Policy.

Class Standing
To progress to the next year in a professional program/school of the College, students must have completed all academic requirements for the preceding year of the professional program/school 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. Typically, one credit is given for each week of clinical rotations.

Course Prerequisites
Prerequisites for courses may be established by the program/school or department that administers the course. Prerequisites are recommended to the CHS Curriculum Committee for approval and are listed with the course description in the Midwestern University Catalog. On a case-by-case basis, prerequisites may be waived upon approval by the chair of the department or director of the program/school that delivers the course.

Faculty Mentor Program
Most 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, Assistant Deans, and the Dean of Students are also available to assist students with academic advising, counseling, 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.
**Grades**

*Grading System*
Students receive letter grades corresponding to the level of achievement in each course, based on the results of examinations, required course work, and, as applicable, other established criteria. The letter grades, percent ranges, and quality points per credit are as follows for all students admitted in Summer Quarter 2008 or thereafter. For students who matriculated prior to or in Summer or Fall Quarter 2007, refer to the 2007-2008 Midwestern University Catalog for the relevant grading system.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percent (%)</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>4.000</td>
<td>-</td>
</tr>
<tr>
<td>A-</td>
<td>90-92</td>
<td>3.670</td>
<td>-</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
<td>3.330</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
<td>3.000</td>
<td>-</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
<td>2.670</td>
<td>-</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
<td>2.330</td>
<td>-</td>
</tr>
<tr>
<td>C</td>
<td>70-76</td>
<td>2.000</td>
<td>-</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 70</td>
<td>0.000</td>
<td>-</td>
</tr>
<tr>
<td>I</td>
<td>-</td>
<td>0.000</td>
<td>An Incomplete (I) grade may be assigned by an instructor when a student’s work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an “I” grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 calendar days starting from the last day of final examinations for the quarter.</td>
</tr>
<tr>
<td>IP</td>
<td>-</td>
<td>0.000</td>
<td>An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>0.000</td>
<td>Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of “P” is counted toward credit hour accruals for graduation but does not affect GPA calculations.</td>
</tr>
<tr>
<td>F</td>
<td>-</td>
<td>0.000</td>
<td>Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of “F” is counted toward credit hour accruals as attempted but not completed. Grade of “F” is calculated into the GPA (quality points are lowered due to unsuccessful course completion).</td>
</tr>
<tr>
<td>W</td>
<td>-</td>
<td>0.000</td>
<td>Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.</td>
</tr>
<tr>
<td>WF</td>
<td>-</td>
<td>0.000</td>
<td>Withdrawal Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the program/school. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. “WF” may be considered as a failure by a Student Academic Review Committee. Multiple “F’”s and “WF’s” can be grounds for dismissal.</td>
</tr>
<tr>
<td>AU</td>
<td>-</td>
<td>0.000</td>
<td>This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.</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>
Grade Point Average
The grade point average (GPA) is determined by calculating the total number of quality points earned and dividing them by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course. The student’s cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated beginning at the end of the first quarter of enrollment and does not include any grades or credits for courses audited or accepted for advanced standing or for courses with a grade of withdrawal (W), withdrawal failing (WF), pass (P) or fail (F) that were repeated. Under exceptional circumstances and with the approval of the Program/School Director and Dean, students may retake a course in which they received a grade of "C." In such cases, the original grade remains on the transcript but only the new grade is used in the computation of the GPA.

Graduation
The degrees of Master of Biomedical Sciences, Master of Arts in Biomedical Sciences, Master of Occupational Therapy, Master of Medical Science in Physician Assistant Studies, Master of Science in Cardiovascular Science, Master of Science in Nurse Anesthesia, Master of Science in Speech-Language Pathology, Master of Arts in Clinical Psychology, Doctor of Psychology in Clinical Psychology, Doctor of Physical Therapy, Doctor of Health Science, or Doctor of Podiatric Medicine will be conferred upon candidates who have completed all academic requirements, satisfied all financial obligations, and completed all graduation requirements.

Immunization Policy
Full-time students enrolled in a program with a clinical component are required to have all immunizations and titers as outlined in the general policy section of the Student Handbook. 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 students enrolled in a program without a clinical component are not required to have immunizations or titers.

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

Students requesting a voluntary leave of absence must comply with the following:

1. Make an appointment with the appropriate Program/School Director and representative from the Dean’s Office to discuss the leave of absence;

2. A student must provide written notification and documentation, if applicable, to the Dean stating the reason for the leave of absence from MWU.

For mandatory leaves of absence, students must make an appointment with the appropriate Program/School Director and representative from the Dean’s Office to discuss the implications of the leave of absence and a revised program of study, if applicable.

All leaves of absence are granted for specific periods of time and require that the student submit written notification of an intention to return prior to the end of the leave period. If an individual fails to return to MWU at the agreed-upon date, the student is considered to have withdrawn from the University and must reapply for admission. Typically, a single leave of absence will not exceed 12 months, and consecutive or multiple interrupted leaves of absence will not exceed 18 months. Periods of non-enrollment do not count towards the maximum allotted time for completion of academic programs. Please refer to the Midwestern University Catalog Academic Policies section for a complete description of the Leave of Absence Policy.

Professional Conduct
Students are expected to emulate the legal, moral, and ethical standards expected of professionals in their respective areas and display behavior that is consistent with these qualities. A Code of Responsibilities and Rights of the Students of Midwestern University is included in Appendix 1 of the MWU Student Handbook. This code clearly states the mode of behavior that is expected of students and covers both on-campus and off-campus activities. Students are expected to read and follow this code.

Unsatisfactory professional behavior, as defined in Appendices 2 and 4 of the MWU Student Handbook, is subject to disciplinary sanctions that may preclude a student’s academic progress in their program of study. The Dean of Students investigates formal complaints concerning student misconduct and recommends disciplinary action to the CHS Dean. A student who is found to have engaged in improper conduct is subject to disciplinary action which includes, but is not limited to, disciplinary warning, disciplinary probation, disciplinary suspension, or disciplinary dismissal. Disciplinary warning and disciplinary probation are not noted on the transcript but are kept in the student’s disciplinary file. Disciplinary suspension and disciplinary dismissal are noted on the student’s transcript. Disciplinary information may be shared with clinical sites that are affiliated with Midwestern University educational programs.
Transfer Policy
Students are expected to complete their degree requirements at the campus to which they originally matriculated. Transfer between campuses is permitted only under extenuating and specific circumstances for enrolled students that are in good academic standing. Students should consult with the Office of the Dean to discuss the process.
MISSION
The Midwestern University Physician Assistant Program is committed to educate and mentor students in a setting that cultivates excellence and prepares compassionate, competent physician assistants to serve in a changing healthcare environment.

ACCREDITATION
The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) has granted Continued Accreditation to the Physician Assistant Program sponsored by Midwestern University-Glendale. Continued accreditation is an accreditation status when a currently accredited program is in compliance with the ARC-PA Standards. Continued Accreditation remains in effect until the program closes or withdraws from the accreditation process or until accreditation is withdrawn for failure to comply with the Standards. The approximate date for the next comprehensive review of the program by the ARC-PA will be March 2018.

DEGREE DESCRIPTION
The professional curriculum leads to a Master of Medical Science in Physician Assistant Studies (M.M.S.). This full-time 27-month professional program offers students the opportunity to earn a graduate degree and satisfy the eligibility requirements for the PA national certifying examination. The PA program does not offer an extended course of study beyond the usual length of the program. The maximum allotted time for completion of this program is 40.5 months. The roles and specific clinical duties and responsibilities that graduates can expect to experience will vary depending on their chosen career path. PA Program graduates are expected to have the ability to competently perform patient histories and physicals, gather pertinent patient data, order and interpret diagnostic studies, recognize common diseases and disorders, choose appropriate therapeutic modalities, perform minor 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 program is a combination of didactic and clinical education with the first 13.5 months covering a variety of didactic courses.

The didactic coursework includes basic medical science coursework in anatomy, physiology, biochemistry, pharmacology and pharmacotherapeutics, and microbiology. It also includes clinical preparatory coursework in clinical medicine, pediatrics, behavioral medicine, psychiatry, women’s health, and emergency medicine and surgical principles. During the remaining 13.5 months, students rotate through seven required core clinical rotations and two elective rotations.

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, inpatient settings involving large and small hospitals, as well as federal and state facilities. These sites are in urban, suburban, and rural communities located throughout Arizona. In addition, the program has established formal affiliations with clinical facilities and practitioners in a number of other states. As part of the clinical education phase of the program, students enrolled in the MWU PA Program will likely be assigned to clinical rotations that reflect this geographic and demographic diversity. Students are required to complete a minimum of one clinical rotation in a rural/medically-underserved community.

ADMISSIONS
The Midwestern University PA Program considers applicants who possess the academic and professional promise necessary for development as competent, caring members of the health care community. The admissions environment is highly selective with more than 1,600 applications received each year. The application deadline is October 1st; however, applicants are encouraged to apply early.

Completed applications received on or before the application deadline are reviewed to determine applicant eligibility for interviews. Interviews are typically held between September and March. The PA Program conducts rolling admissions and admissions decisions are generally made within two weeks following an interview. Candidates are notified of their status shortly thereafter. Cumulative and science grade point averages (GPAs), Graduate Record Examination (GRE)
general test scores, letters of recommendation, health care experience, knowledge of the profession, and motivation for a PA professional career will all be considered when reviewing applicant files.

Admission Requirements

Students seeking admission to the PA Program must submit the following documented evidence:

1. All applicants must apply through the Centralized Application Service for Physician Assistants (CASPA) and meet the published admission criteria.
2. Minimum cumulative science and overall GPA of 2.75 on a 4.00 scale.
3. Scores from the Graduate Record Examination (GRE) general test to the Office of Admissions by December 1st using the Midwestern University institution code 4160.
   - Only test scores earned in the last five years are acceptable
   - Applicants are expected to achieve a score at or above the 50th percentile in each section
   - For additional information about the GRE, contact Educational Testing Services (ETS) at 609/771-7670 or 866/473-4373 or visit www.ets.org/gre
4. Completion of prerequisite courses as listed below from regionally accredited colleges or universities.
   - All prerequisite courses must be completed with a grade of a C or better
   - Life experience credits do not count toward fulfillment of any prerequisite courses
   - Courses in which “credit” or grades of “pass” are earned will be counted only when applicants can provide verification that the earned grades were equivalent to grades of C or better (grades of C- are not acceptable)
5. Completion of prerequisite courses prior to matriculation.
6. Applicants must determine which prerequisites are missing and which courses must be taken to fulfill any outstanding prerequisites.
7. Completion of a bachelor’s degree from a regionally accredited college or university before matriculation.
8. Motivation for and commitment to health care as demonstrated by previous work, volunteer work, or other life experiences.
9. Demonstration of service and leadership through community service or extracurricular activities.
10. Oral and written communication skills necessary to interact with patients and colleagues.
11. Satisfactory Midwestern University criminal background check.

12. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
13. Successful completion of all required immunizations prior to matriculation.
14. The applicant must meet the technical standards prior to admissions.

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*Biology with lab (must include at least 4 hours of Anatomy)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>*General Chemistry with lab</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>*Organic Chemistry with lab</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Math (college algebra or above)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>*Biochemistry (not required, but strongly recommended)</td>
<td>4-8</td>
</tr>
<tr>
<td></td>
<td>Statistics (not required, but strongly recommended)</td>
<td>3</td>
</tr>
</tbody>
</table>

* All science prerequisites must be courses designed for science majors. No survey courses will fulfill science prerequisites. No online labs will be accepted.

International Applicants

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
International applicants who do not provide documentation of acceptable US or Canadian course/degree equivalency will not receive credit, and will be required to complete all prerequisite courses at an accredited college or university in the United States, or at a recognized post-secondary institution in Canada that uses English as its primary language of instruction and documentation.

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

Application Process and Deadlines

1. **CASPA Application**
   
   Completed applications with all required materials must be submitted to the Centralized Application Service for Physician Assistants (CASPA) at www.caspaonline.org by October 1st. Please refer to the CASPA application instructions for specific details about completing the application, required documents, and processing time. CASPA applications are available beginning in April of the academic year preceding the year in which applicants plan to matriculate. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their CASPA applications 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 written by a science professor who has actually taught the student or a prehealth advisory committee. The second letter can be written by any one of the following: prehealth advisory committee, prehealth advisor, college professor, or health care 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. The Office of Admissions must receive letters of recommendation no later than December 1st.

3. **GRE Scores**
   
   Applicants are required to submit official GRE general test scores to Midwestern University. The MWU institutional code for submitting scores is 4160. Only test scores earned during the previous five years and sent directly from the Educational Testing Service (ETS) will be accepted. The Office of Admissions must receive official GRE scores no later than December 1st.

4. **Completed Applications**
   
   The Office of Admissions will send letters verifying receipt of the CASPA application to all applicants who meet the minimum cumulative science and overall GPA requirement of 2.75. Letters will also include instructions on tracking application status online. Applicants are responsible for tracking the receipt of their application materials to ensure the submission of all required documents. Applicants will only be considered for entrance into the Program when the Office of Admissions has received all required application materials which must be received no later than December 1st. In-progress prerequisite courses must be completed prior to matriculation.

5. **Advanced Placement Credit**
   
   Advanced placement credit may be awarded for comparable Midwestern University courses only. Advanced placement credit is considered once applicants have been accepted into the Physician Assistant Program. Credit is not guaranteed and is awarded on a course-by-course basis consistent with the CHS advanced placement policy.

6. **Interview and Selection Process**
   
   Once the admissions cycle is underway, the Midwestern University Physician Assistant Program strongly encourages applicants to provide the Office of Admissions with updates to their application (i.e. transcripts of courses completed since the initial application).

   Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address. All requests for application withdrawal must be made in writing via e-mail, fax, or letter to the Office of Admissions:

   Midwestern University
   Office of Admissions
   19555 North 59th Avenue
   Glendale, AZ 85308
   623/572-3215 or 888/247-9277
   admissaz@midwestern.edu

   After the Office of Admissions receives CASPA application reports, applicant files are reviewed to determine whether applicants merit an interview. The following criteria are used to select the most qualified candidates for interview invitations: GPA, GRE general test scores, letters of recommendation, healthcare experience, knowledge of the profession, and motivation for a PA career. Evaluation of completed applications will begin in September and continue until all seats in the class are filled. Eligible candidates are typically invited to interview during the months of September, October, November, December,
January, February, and March. Applicant files may also be placed on an interview wait list pending possible openings toward the end of the interview cycle. Applicants selected to interview will be notified by letter or telephone of available dates and asked to contact the Office of Admissions to confirm one of the dates offered. Letters of confirmation will be sent to applicants that include travel information for visiting the MWU campus (i.e., directions to campus and local lodging information).

A typical interview day on campus involves participation in the following activities, which are coordinated by the Office of Admissions: a presentation by the PA Program Director or Chair of the PA Admissions Committee, interaction with faculty members, meetings with current Midwestern University students, a campus tour, and meetings with an admissions counselor. During each interview session, prospective students may be asked about their academic, personal, and professional aspirations and preparedness for admission to the Program. Prospective students will be rated on a standardized evaluation form, which is included with the applicant’s file and forwarded to the PA Admissions Committee for review.

The PA Admissions Committee meets within one week after interviews have concluded. The Committee reviews complete application files for all applicants who were interviewed, formulates recommendations, and then submits recommendations to the Program Director for action. The CHS Dean, via the Office of Admissions, notifies applicants in writing of their admissions status. All applicants receive notification regarding their status by the end of March, but many will be offered seats following their interviews and subsequent Admissions Committee meetings.

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (Program) would need to make that would allow the candidate to complete the curriculum. The College (Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.

3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.

4. Meet the Technical Standards for the college.

5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.

6. Submit additional documents as requested by the Office of Admissions or college.

7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.

8. Submit a signed Credit Policy Statement.

9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.

10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

**Reapplication Process**

After receiving either a denial or end-of-cycle letter, prospective students may reapply for the following year’s admissions cycle. Before reapplying, however, applicants are encouraged to seek input on strengthening their application from a counselor in the Office of Admissions after the admissions cycle is officially over. To initiate the reapplication process, prospective students must complete and submit new applications and proceed through the standard application procedures.

**Graduation Requirements**

To qualify for graduation with the master’s degree, students must:

1. Follow an approved course of study leading to the completion of all master’s requirements.
2. Satisfactorily complete all professional courses with a minimum cumulative grade point average of 2.75; and no course or rotation grade below a C.
3. Satisfactorily complete the Summative evaluations.
4. Satisfactorily complete the required 142 credit hours in the overall course of study.
5. Receive a favorable recommendation for master’s degree conferral from the PA Program Student Academic Review Committee and the CHS Student Promotion and Graduation Committee.
6. Be recommended for conferral of the master’s degree by the University Faculty Senate.
7. Settle all financial accounts with the University, and
8. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

**Certification/Licensure Requirements**

To practice in most states, including Arizona, 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 100, Johns Creek, GA. 30097-1409; [678/417-8100]; www.nccpa.net

**Curriculum**

The total credits for years 1, 2, and 3 are 142. The PA Program reserves the right to alter its curriculum, however and whenever, it deems appropriate.

**First Professional Year:**

Total Quarter Credit Hours Required: 71.5

**Summer Quarter**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ANAT 1551</td>
<td>Human Anatomy and Embryology (with Gross Anatomy Lab)</td>
<td>7</td>
</tr>
<tr>
<td>BIOC 551</td>
<td>Human Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>PASS 551</td>
<td>Behavioral Medicine</td>
<td>3</td>
</tr>
<tr>
<td>PASS 556</td>
<td>Medical Interviewing and Documentation</td>
<td>2</td>
</tr>
<tr>
<td>Quarter</td>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>---------------</td>
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<td><strong>Fall Quarter</strong></td>
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<tr>
<td>CORE 1560</td>
<td>Interdisciplinary Healthcare</td>
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<tr>
<td>PASS 560</td>
<td>Epidemiology and Evidence-Based Medicine</td>
<td>2</td>
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<tr>
<td>PASS 565</td>
<td>Clinical Medicine I</td>
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<tr>
<td>PASS 586</td>
<td>Pediatrics</td>
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<tr>
<td>PASS 1569</td>
<td>Physical Diagnosis</td>
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<tr>
<td>PHAR 560</td>
<td>Pharmacology and Pharmacotherapeutics I</td>
<td>2</td>
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<tr>
<td>PHYS 1571</td>
<td>Human Physiology I</td>
<td>4</td>
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<td><strong>Winter Quarter</strong></td>
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<td>CORE 1570</td>
<td>Interdisciplinary Healthcare</td>
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<td>Microbiology</td>
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<td>PASS 570</td>
<td>Clinical Medicine II</td>
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<td>PASS 574</td>
<td>Clinical Laboratory Medicine</td>
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<td>PASS 577</td>
<td>Evidence-Based Medicine Cases</td>
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<td><strong>Spring Quarter</strong></td>
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<tr>
<td>CORE 1580</td>
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<tr>
<td>PASS 571</td>
<td>Therapeutic and Diagnostic Skills</td>
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<tr>
<td>PASS 573</td>
<td>Basic Electrocardiography</td>
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<td>Women’s Health</td>
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<td>PASS 580</td>
<td>Clinical Medicine III</td>
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<td>PASS 582</td>
<td>Emergency Medicine and Surgical Principles</td>
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<td>PASS 587</td>
<td>Medical Ethics</td>
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<td><strong>Second Professional Year</strong>:</td>
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<td><strong>Summer Quarter</strong></td>
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ANAT 1551 Human Anatomy and Embryology (with Gross Anatomy Lab)
This course presents the anatomy of the human body and relevant embryological development in a lecture and laboratory format. The emphasis is on the relationship of form and function and the use of anatomy in physical diagnosis. Laboratory sessions include dissection of human cadavers. Student progress is evaluated through written and practical examination.
7 credits

BIOC 551 Human Biochemistry
Biochemistry is concerned with the functioning of cellular constituents at the molecular level in health and how their functions are altered in disease. Biochemistry is fundamental to understanding all branches of the life sciences. Topics include cellular energy metabolism, signal transduction, cell biology, medical genetics, complete blood count, anemia, diabetes, and hemostasis tests.
4 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other's clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated.
0.5 credits each course

MICR 570 Microbiology
The course is organized by organ system and the major infectious diseases affecting each of these are discussed. Focus is on the etiology, pathogenesis, clinical manifestations and diagnosis of these selected diseases.
3 credits

PASS 551 Behavioral Medicine
This course presents a two-fold approach to behavioral medicine: 1) A biopsychosocial and family systems model of the individual and family developmental stages present throughout the life cycle; and 2) an introduction to the major psychopathologies encountered in clinical practice. Emphasis is placed on medical assessment, diagnostic criteria, clinical management, and first-line treatments. Case histories and audio-visual presentations will enhance the student’s understanding.
3 credits

PASS 556 Medical Interviewing and Documentation
The purpose of this course is to create an awareness and understanding of the art of interviewing and communicating with patients and other health care professionals. The course focuses on creating a medical record that accurately reflects the medical interview and establishes the competency of the PA. Topics involving communication techniques with patients, confidentiality issues, ethical issues, and cultural sensitivity will also be addressed.
2 credits

PASS 560 Epidemiology and Evidence-Based Medicine
The purpose of this course is to provide the PA student with an overview of basic epidemiologic principles and an introduction to evidence-based medicine (EBM). The students will be taught the core concepts that can be used to critique medical literature and then apply these epidemiological and EBM skills to clinical scenarios, using case studies as examples.
2 credits

PASS 565, 570, 580 Clinical Medicine I, II, III
The purpose of the Clinical Medicine series is to introduce students to diseases and conditions commonly encountered in ambulatory-based primary care medicine. Lectures emphasize the epidemiology, pathophysiology, presentation and course of the disease, plus diagnostic and treatment modalities of each disease presented. Students participate in weekly problem-based learning sessions where they have the opportunity to develop competence in writing SOAP (Subjective, Objective, Assessment and Plan) notes. Students gain experience in formulating a differential diagnosis and creating an effective management plan, including prescription writing.
PASS 565: 4 credits; PASS 570: 5 credits; PASS 580 5 credits

PASS 571 Therapeutic and Diagnostic Skills
This course emphasizes skill development in performing routine therapeutic procedures and competence in managing therapeutic interventions. Areas of skill development include (at a minimum) injections, suturing and wound care, casting,
PASS 573 Basic Electrocardiography
The purpose of this course is to introduce students to reading and interpreting the findings on rhythm strips and twelve-lead electrocardiograms. Students will learn how to determine heart rate, intervals, axis, chamber enlargement or hypertrophy, signs of ischemia and infarcts, and the effects electrolyte abnormalities and medications can have on the myocardium. Additionally, students will learn to recognize various arrhythmias, including atrial dysrythmias, junctional dysrythmias, ventricular dysrythmias, ectopy, and heart block.
1.5 credits

PASS 574 Clinical Laboratory Medicine
The purpose of Clinical Laboratory Medicine is to guide the PA student through diagnostic tests and procedures associated with medical illnesses encountered in the clinical setting. This course is aligned closely with the Clinical Medicine curriculum, integrating pathophysiology and diagnosis of illness with the appropriate diagnostic studies and their interpretation. The PA student will develop critical thinking skills through the use of clinical case studies, small group application and examinations.
2 credits

PASS 575 Women’s Health
The purpose of this course is to introduce the first-year physician assistant (PA) student to the principles of women’s health, including topics such as sexually transmitted infections, menstrual abnormalities, health maintenance, gynecologic oncology, prenatal care and normal and abnormal labor and delivery. This course will provide the PA student with fundamental knowledge and skills critical for success in the second year and relevant to a PA in a variety of practice settings, including obstetrics/gynecology, primary care, emergency medicine and surgery.
2 credits

PASS 577 Evidence-Based Medicine Cases
The purpose of this course is to help students further develop literature analysis and clinical application of EBM principles. The course coordinators will assist student small groups in the selection of a clinical case topic and facilitate an in-depth approach to the topic through the use of a case-based presentation. An integral part of this course is facilitating those skills necessary to succeed as a PA in clinical practice (i.e. self-directed learning, medical informatics, time management, ability to cooperate and work effectively within a group, etc.).
2 credits

PASS 582 Emergency Medicine and Surgical Principles
The Emergency Medicine and Surgical Principles course is designed to develop an approach to problems frequently encountered in the Emergency Department and to expose students to the role of the PA in surgical practice. Course goals related to emergency care also include review of the triage process and recognition of principles of intervention for life threatening emergencies as well as management and disposition of non-emergent patients. Elements of surgical care will include the pre-, intra- and post-operative care of the patient.
3 credits

PASS 586 Pediatrics
This course will provide overall instruction in the evaluation and management of the pediatric patient from the neonatal period through adolescence. The course will cover common conditions and abnormalities encountered in the pediatric population. The course will include common acute and chronic illnesses, genetic and chromosomal abnormalities, developmental abnormalities and an introduction to wellness and prevention in the neonate, child, and adolescent.
2 credits

PASS 587 Medical Ethics
This course is an introductory exploration of a variety of issues central to the ethical dimensions of medicine. Course objectives include the development of critical skills for evaluating and articulating ethical and philosophical claims, arguments, and goals; to encourage reflection on personal and professional moral commitments in the practice of medicine and promote discussion between professionals; to improve ability to communicate effectively with patients; and to reflect on the relationships among moral, professional, and legal obligations of clinicians.
1 credit

PASS 680 Preparation for Clinical Phase (PCP)
Preparation for the Clinical Phase (PCP) is designed to prepare students for the clinical training phase of the Physician Assistant Program. PCP focuses on reviewing pertinent professional issues, confidentiality of patient information, proper conduct on rotations and medical documentation. Topics that illustrate the challenges faced by PAs in clinical practice and the challenges PAs may encounter as they make the transition from a student to a professional will also be covered. Introduction to core concepts in public health and nutrition, chronic disease management in special populations, principles of nutrition assessment, and patient education are included.
1.5 credits

PASS 681 Clinical Medicine IV
The purpose of Clinical Medicine IV is to consolidate learning of basic clinical material before students begin their clinical rotations. Lectures will emphasize differential
diagnosis of common presenting symptoms that students are expected to encounter on their rotations. The course will encourage a review of interview techniques, physical diagnosis skills, and the application of common laboratory tests to clinical situations. There will be an emphasis on the most appropriate pharmacological and non-pharmacological approaches to treatment.

2 credits

**PASS 682 Clinical Simulation**
The purpose of this course is to introduce the first-year physician assistant (PA) student to the principles of patient safety, interpersonal communication, and teamwork, in addition to refining clinical history taking, physical examination, diagnosis and treatment planning through interprofessional and team-based simulated patient encounters. This course will also introduce the student to advanced clinical skills. The course is designed to reinforce the first year material prior to starting clinical rotations.

2 credits

**PASS 683 Medical Genetics**
The purpose of this course is to teach physician assistant students which genetic disorders they can diagnose and manage themselves and which require referral to a genetic specialist. This course will address the importance of family history as well as genetic screening tools that are office based, and direct to consumer. Curricula will be evidence-based and specifically geared towards application to clinical practice, regardless of clinical specialty.

1 credit

**PASS 684 Advanced Cardiac Life Support (ACLS)**
This course teaches students how to manage patients in cardiac distress. At the completion of this course, students receive a certificate in ACLS.

2 credits

**PASS 1569 Physical Diagnosis**
This course is designed to teach the student the art and technique of physical assessment. Course content includes lectures and reading assignments covering normal and abnormal physical findings. In addition, there are weekly physical exam laboratory sessions designed to provide the student with hands-on practice in exam techniques. At the conclusion of the course the student will be expected to pass a written final exam and satisfactorily perform a complete physical examination.

4 credits

**PHAR 560, 570, 580 Pharmacology and Pharmacotherapeutics I, II, III**
The overall instructional goal of pharmacology and pharmacotherapeutics courses is to provide the physician assistant with a firm understanding of the effects of therapeutically important drugs, from a molecular to a behavioral level of organization. These courses discuss therapeutic strategies, and new types of drugs, as well as the clinical implications and contraindications. Lectures are designed on an organ system basis with emphasis on distinctive uses of drugs. Although large numbers of drugs are available on the market, only a few prototype agents have been selected for intensive study for this course.

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHAR 560</td>
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<td>PHAR 570</td>
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**PHYS 1571, 1582 Human Physiology I, II**
In this two-quarter series, students are introduced through didactic instruction, workshops, and clinical case discussions 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 appreciation of the diverse regulatory processes that maintain the homeostasis of the human body.

Each course 4 credits

**Years 2 and 3: Required Courses**

**CLRO 698, 699 Elective Rotation I, II**
Students are provided two 6-week elective training experiences. The goal is for the student to develop fundamental skills in evaluating and managing patients with pathologies that require clinician intervention. Students will utilize both diagnostic and treatment modalities for various conditions that are present in the elective setting.

Each course 6 credits

**EMED 691 Emergency Medicine**
The Emergency Medicine rotation is a six-week training experience in an emergency department. The course will cover common conditions and abnormalities encountered in the pediatric and adult populations. Emergency Medicine emphasizes the care of the patient with acute disease management, stabilization and proper follow-up. The purpose of this rotation is to provide the student with a knowledge base about decision making and initiation of emergent care.

6 credits

**FMED 692 Family Medicine/Primary Care**
The Family Medicine/Primary Care rotation is a six-week training experience in a family medicine or primary care setting. This course will provide overall instruction in the evaluation and management of common conditions and abnormalities encountered in the pediatric and adult populations. Family Medicine/Primary Care emphasizes the comprehensive care of the patient and family, including chronic and acute disease management, preventative care and
health maintenance, and patient/family education. Other
principles include continuity of care, delivery of cost-effective
quality care and identifying supplemental sources of care
within the community.
6 credits

**IMED 693 Internal Medicine**
The Internal Medicine rotation is a six-week training
experience in an internal medicine setting. This course will
provide overall instruction in the field of Internal Medicine.
The course will cover common conditions and abnormalities
encountered in the adolescent and adult populations. Internal
Medicine emphasizes the comprehensive care of the adult
patient including chronic and acute disease management,
preventive care and health maintenance, and patient
education.
6 credits

**OBGY 697 Women’s Health**
The Women’s Health rotation is a six-week training
experience in a women’s health setting. The course will cover
common conditions and abnormalities encountered in the
pediatric and adult populations. Emphasis is on the
comprehensive care of the female patient including preventive
care and health maintenance, care of the mother and child,
and patient education.
6 credits

**PASS 665 A-C Master’s Portfolio**
This second-year master’s course series serves largely as an
independent study, allowing the second-year physician
assistant student to develop an electronic portfolio of
professional and scholarly activities. The portfolio focus
and/or content may change over the course of the clinical
year, based on the individual student’s personal experiences,
preferences and opportunities. A summary of state regulatory
requirements will be addressed and included by the student.
Each course 1 credit

**PASS 691 Mid-Year Evaluation**
This course is designed to evaluate students at the midpoint
of the clinical phase of the Physician Assistant program. The
mid-year evaluation (MYE) offers an opportunity for the
program and the student to assess student progress and to
ensure students are meeting program learning objectives and
academic milestones. The mid-year evaluation consists of an
individual primary care-based practical examination, medical
documentation and a comprehensive primary care-based
multiple-choice exam.
1 credit

**PASS 692 End-of-Year Evaluation**
The End-of-Year Evaluation (EYE) course is the summative
evaluation of the student conducted at the end of the clinical
phase. The course consists of lectures and assessments. It is
designed to gauge the student’s readiness for the Physician
Assistant National Certifying Examination (PANCE), as well
as clinical practice. Graded components of EYE include
individual performance during a primary care-based
standardized patient examination, documentation of the
encounter, and a comprehensive summative exam.
2 credits

**PASS 693 Clinical Assessment Day I**
The Clinical Assessment Day (CAD) offers an opportunity
for the program and the student to assess student progress and
to ensure students are meeting program learning objectives
and academic milestones. The CAD consists of an individual
primary care-based practical examination, medical
documentation, an individual skills assessment and lecture.
1 credit

**PASS 694 Clinical Assessment Day II**
The Clinical Assessment Day (CAD) offers an opportunity
for the program and the student to assess student progress and
to ensure students are meeting program learning objectives
and academic milestones. The CAD consists of an individual
primary care-based practical examination, medical
documentation, an individual skills assessment and lecture.
1 credit

**PEDI 694 Pediatrics**
The Pediatrics rotation is a six-week training experience in a
pediatric medicine setting. This course will provide overall
instruction in the evaluation and management of pediatrics.
The course will cover common conditions and abnormalities
encountered in the pediatric population. Pediatrics
emphasizes the comprehensive care, including chronic and
acute disease management, preventive care and health
maintenance, and patient/family education.
6 credits

**PSYC 695 Psychiatry/Behavioral Medicine**
The Psychiatric/Behavioral Medicine rotation is a six-week
training experience in a psychiatric setting. This course will
provide overall instruction in the evaluation and management of
psychiatric disorders. The course will cover common
conditions and abnormalities encountered within the realm of
psychiatry and/or behavioral medicine. The practice of
psychiatry emphasizes the care of mental and emotional
disorders. Clinical rotations may include the pharmacologic,
behavioral and/or psychoanalytic management of
psychological disorders.
6 credits

**SURG 696 Surgery**
The Surgery rotation is a six-week training experience on a
surgical service. The surgery course provides students with
clinical experience in pre-operative, intra-operative and post-
operative care. Principals of pre-operative (i.e. initial history
and physical, pre-operative risk assessment, recognize surgical
emergencies, etc.), operative (i.e. sterile technique/field,
retraction, hemostasis, etc.), and post-operative (i.e. wound care, patient education, etc) care are emphasized. Focus is on general surgical principles in preparation for the end of rotation examination and the PANCE.

6 credits

**Postgraduate Fellowship in Academic Medicine for Physician Assistants**

The Midwestern University PA Program offers a 12-month Postgraduate Fellowship in Academic Medicine for Physician Assistants. The Fellowship curriculum, which blends didactic instruction, self-directed learning, application and evaluation, is designed to provide Fellows with the education and skills necessary to effectively transition from clinical practice to academia. Upon successful completion of the Fellowship, graduates are awarded a certificate of completion from the Midwestern University College of Health Sciences, Physician Assistant Program. The certificate provides recognition of postgraduate education and academic preparation for a position as a PA Program faculty member.

The didactic and self-directed learning components of the Fellowship include instruction and assignments related to educational theory, instructional design, student issues, leadership and administration, and delivery of clinical education. Fellows acquire knowledge and skills throughout the course of the curriculum by participating in faculty responsibilities within the didactic and clinical phases of the PA Program. These responsibilities include developing and delivering didactic lectures, conducting small groups, implementing course design, creating performance metrics to assess learning, participating on committees, engaging in clinical site development, and completing a scholarly project. Fellows demonstrate completion of the curriculum by creating an academic portfolio, completing a capstone project, and submitting a scholarly work for consideration for publication or presentation.

Applicants seeking a Fellowship position must possess the following qualifications: (1) graduation from an ARC-PA accredited PA Program, (2) NCCPA certification and Arizona licensure (or eligibility for licensure), (3) master’s degree in a related field, and (4) minimum of one year of clinical experience as a Physician Assistant. Applicants are also required to submit a cover letter, three letters of recommendation, a personal statement, resume, and transcripts from the PA Program he or she attended. For further information about the Midwestern University Postgraduate Fellowship in Academic Medicine for Physician Assistants, please contact the Program Director at 623/572-3714.

**STUDENT ACADEMIC POLICIES**

**Academic Progress**

The academic standing of a student is determined by the student’s cumulative grade point average.

To progress to the next quarter, a student must satisfactorily complete all academic requirements for the preceding quarter.

To progress to the clinical phase of education, a student must satisfactorily complete all didactic requirements. Please refer to individual course syllabi for more detailed information.

**FACULTY**

**Amanda Chapman, M.M.S., PA-C**
Midwestern University
College of Health Sciences
Clinical Coordinator and Instructor

**Jennifer Feirstein, M.S., PA-C**
Arcadia University
Clinical Coordinator and Instructor

**Jennifer Hastings, M.S., PA-C**
George Washington University
Assistant Director of Clinical Education
Instructor

**Alison McLellan, M.M.S., PA-C**
Midwestern University-Glendale
College of Health Sciences
Instructor

**James Meyer, M.D., F.A.C.P.**
University of Michigan
School of Medicine
Medical Director and Professor

**Jeffrey Pearl, M.D.**
University of California
Los Angeles Medical School
Program Director and Professor

**James Roch, M.P.A.S., PA-C**
University of Nebraska
College of Medicine
Assistant Director of Didactic Education
Associate Professor

**James Stoehr, Ph.D.**
Dartmouth College
Associate Director of Master’s Education and Professor

**Carla Thompson, M.S.P.A.S., PA-C**
AT Still University
College of Health Sciences
Instructor

**Sally Van Snepson-Barnett, M.P.A.S., PA-C**
University of New England
Assistant Professor
MISSION
The Occupational Therapy Program is dedicated to excellence in the education of occupational therapists who will meet the occupational needs of individuals and communities through responsive, compassionate and evidence-based practice.

ACCREDITATION
The Midwestern University 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, Suite 200, Bethesda, MD 20814-3449; 301/652-6611, ext. 2914. 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).

Midwestern University is accredited by The Higher Learning Commission/A Commission of the North Central Association of Colleges and Schools (HLC/NCA), 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413.

DEGREE DESCRIPTION
The Occupational Therapy Program offers a curriculum leading to the Master of Occupational Therapy (M.O.T.) degree for qualified students. The full-time, continuous, entry-level master’s curriculum is designed to deliver the academic and clinical education required to prepare students for their professional role as key members for the healthcare team and as integral practitioners in the healthcare delivery system. The curriculum for the Master of Occupational Therapy degree is a continuous, full-time program, extending 27 months from matriculation to graduation. The maximum allotted time for completion of this program is 40.5 months. It is also required that all Level II fieldwork must be completed within 18 months of completion of the didactic portion of the program. 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 therapy theory, and research. The remaining credits focus on courses related to client 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. The practice courses facilitate students’ application of content related to client evaluation and intervention using community-based and case-based learning opportunities. In addition to such preclinical learning opportunities, the fieldwork program offers extensive and in-depth experiences to 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 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 society and contribute to the academic and clinical education of future practitioners. It also is designed to prepare graduates for leadership and management roles in the profession. The graduate will be prepared to make meaningful, ongoing contributions to society, healthcare, and the profession through leadership activities and collaborative efforts with others in occupational therapy and interdisciplinary education, practice, and research.

Program Objectives
Upon completion of the Master of Occupational Therapy Program, graduates are expected to:

1. Provide evidence-based occupational therapy services in traditional and emerging areas of practice.
2. Meet the occupational needs of individuals and populations through professional advocacy and leadership.
3. Apply therapeutic use of occupations to support engagement in activities that promote health, well-being and quality of life.
4. Sustain continued professional development through lifelong learning activities.
5. Uphold the ethical standards, values and attitudes of the occupational therapy profession in order to sensitively meet the occupational needs of a culturally and socially diverse clientele.

These outcomes are accomplished through:

1. A curriculum model based on intentionally sequenced courses that act as vital links between application, analysis, synthesis, and evaluation of knowledge, skills and attitudes.
2. Critical application of current research and other forms of best evidence to improve occupational therapy practice and contribute to the body of related knowledge.
3. Sequential implementation of simulated and authentic clinical experiences across the curriculum.
4. Occupation-focused coursework and fieldwork experiences designed to facilitate critical and ethical reasoning.
5. Opportunities for both individual and group work to develop leadership, team-building, and professional skills, behaviors and attitudes.

ADMISSIONS

The College of Health Sciences Occupational Therapy Program considers for admission those applicants who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. To select these candidates, a competitive admissions framework has been established for applicants who have received a bachelor’s degree in any field, but who have not completed an accredited occupational therapy program. The Program does not accept students who transfer from another Occupational Therapy Program.

Within this competitive admissions framework, multiple criteria are used to select the most qualified candidates from an applicant pool that exceeds the number of seats available. Interested individuals are advised to complete their application as early as possible to ensure timely consideration.

The Midwestern University Occupational Therapy Program uses the Centralized Application Service for Occupational Therapy Schools (OTCAS) for students applying to the Program. All applicants to the Occupational Therapy Program are required to submit their applications to OTCAS (http://www.otcas.org) with all required materials by February 1st. Please refer to the OTCAS website for instructions on submission of OTCAS application materials.

The Occupational Therapy Program operates on a rolling admissions basis in which completed applications are reviewed throughout the admissions cycle to determine application eligibility for interviews. Interviews are typically conducted during the winter and spring. Admission decisions are generally made within one month of the interview.

Admission Requirements

Individuals applying for admission to the College of Health Sciences Occupational Therapy Program must submit documentation for the following minimum requirements before the academic year commences for the incoming class.

1. Completion of a baccalaureate degree from a regionally accredited college or university.
2. A minimum cumulative undergraduate grade point average (GPA) of 2.75 on a 4.00 scale. Grades of C or better for prerequisite coursework (grades of C- are not acceptable).
3. Completion of the minimum number of prerequisite courses in the prescribed subject areas at regionally accredited colleges or universities.
4. Satisfaction of the standards set forth by the Admissions Committee (including documentation of academic and professional promise in the prospective student).
5. Completion of the Occupational Therapy Program’s interview process. On-campus interviews are by invitation only. Applicants are invited to an interview based on evidence supportive of excellence in:
   - Academic achievement
   - Oral and written communication skills
   - Articulation of the domain and scope of OT practice
   - Community service
   - Leadership in extracurricular or other activities
6. Completion of a first aid course within three years prior to enrollment.
7. Current certification in cardiopulmonary resuscitation (CPR) at Health Care Provider level or Basic Life Support of the American Heart Association or the American Red Cross.
8. Demonstration of a people or service orientation through community service or extracurricular activities.
9. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.
10. Oral and written communication skills necessary to interact with clients and colleagues.
11. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
12. Passage of the Midwestern University criminal background check.
Prerequisite Courses
Students must complete these courses with a grade of C or higher (grades of C- are not acceptable).

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<th>Course</th>
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<tbody>
<tr>
<td>Human Anatomy $^2$</td>
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<tr>
<td>Physiology</td>
<td>3</td>
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<tr>
<td>Statistics</td>
<td>3</td>
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<tr>
<td>Human Development $^3$</td>
<td>3</td>
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<tr>
<td>Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>Social and Behavioral Science</td>
<td>3</td>
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$^2$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.

$^3$Human Anatomy must be completed successfully within 5 years of admission to the Program. The lab component with cadaver experience is strongly recommended.

Additional courses in the sciences and mathematics are recommended, including chemistry, physiology, physics, and biology.

General education electives are also recommended to demonstrate competency in English composition, oral communication, problem-solving behavior, logic, and ethical theories.

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)

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

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

Application Process and Deadlines
To be considered for admission to the Occupational Therapy Program, applicants must complete the following:

1. OTCAS Application
   Applicants are required to submit their applications to OTCAS at http://www.otcas.org by February 1st. Please refer to the OTCAS application instructions for specific details about completing the application, required documents, and processing time. The OTCAS application should be available for applicants beginning in July. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their OTCAS application early in the cycle.

2. Letters of Recommendation
   Applicants are required to submit a minimum of two letters of recommendation from professionals to OTCAS (http://www.otcas.org). The Office of Admissions will only accept letters of recommendation received directly from OTCAS. It is preferred that one of the submitted letters is written by an occupational therapist who has supervised or mentored the applicant or a professional who can speak to the applicant’s motivation, experiences in occupational therapy, or readiness for entering the Occupational Therapy Program. The second letter can be written by either a college professor who actually taught the student or a prehealth advisor who knows the applicant well. The applicant should refer to the OTCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. Completed Application
   The Office of Admissions will send letters verifying receipt of OTCAS applications with all required materials to all applicants who meet the minimum cumulative GPA requirement of 2.75. The letters will also include instructions on checking the status
of the required application materials online. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit completed applications with all required application materials will be considered for potential entrance into the Program.

Please note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via email, fax, or letter to:

Midwestern University
Office of Admissions
19555 N. 59th Ave.
Glendale, AZ 85308
Phone: 888/247-9277 or 623/572-3215
Fax: 623/572-3229
admissaz@midwestern.edu

Interview and Selection Process
Students selected for an interview will be notified of available interview dates and invited by the Office of Admissions to schedule their on-campus interview. A typical interview day involves participation in the following activities, which are coordinated by the Office of Admissions: an interview with two interviewers, lunch with current Midwestern University students, a campus tour, and an opportunity to meet with counselors from the admissions office and the financial aid office.

During each interview session, the interviewer(s) question the applicant about their academic, personal, and professional aspirations and preparedness for admission to the Occupational Therapy Program, and rate(s) the prospective students on a standard evaluation form. These evaluations are included in applicant files provided to the Occupational Therapy Admissions Committee. The Occupational Therapy Admissions Committee meets approximately one to two weeks after the interviews. The Committee reviews the full application file for applicants who were interviewed and then formulates and submits a recommendation to the Dean for action. The Dean, via Office of Admissions, notifies applicants in writing of the admission action/decision. Applicants are responsible for tracking the receipt of all published admissions requirements.

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and 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. The Occupational Therapy Program requires a candidate to be able to move at least 50 pounds vertically and horizontally.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what
accommodations, if any, the College (/Program) would need to make that would allow the candidate to complete the curriculum. The College (/Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college.
3. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
4. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
5. Meet the Technical Standards for the college.
6. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
7. Submit additional documents as requested by the Office of Admissions or college.
8. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
9. Submit a signed Credit Policy Statement.
10. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

Reapplication Process
Students who receive denial or end-of-cycle letters may reapply for the following year’s admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit a new application and proceed through the standard application process.

Evaluation of Student Performance
Students in the 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 skill checks, or other methods of determining the extent to which each student has mastered the course content and skill competencies. Student performance in formal examinations is graded on a numerical/alphabetic system using a standard grading scale, which is published in this catalog. 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 curriculum.

Evaluations of student performance during the Fieldwork II experiences are formalized using standard evaluation tools established by the American Occupational Therapy Association. In keeping with the Program’s mission to exceed national standards, the Occupational Therapy Program reserves the right to augment the performance criteria required to successfully complete the Fieldwork Level II courses.
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 133.5 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; and
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

LICENSURE REQUIREMENTS
Occupational Therapy is a registered and/or licensed profession in all 50 states. To become licensed to practice as an occupational therapist in most states (including Arizona), 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 Arizona) require status as an occupational therapist registered (OTR) to become a licensed occupational therapist (OTR/L). Most states require licensure in order to practice. A prior felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure.

CURRICULUM
The professional master’s curriculum is composed of 47.5 required course credits (quarter hours) for the first calendar year, 61.5 required course credits for the second calendar year, and 24.5 required course credits for the third calendar year, for a total of 133.5 quarter credits. Fieldwork courses are placed in the first, second, and third years of the curriculum and include one 0.5-credit Level I experience, two 1-credit Level I experiences and two 12-credit Level II Fieldwork experiences. Moreover, faculty-guided and supervised learning opportunities in the community are pivotal learning experiences during the second year which reinforce and expand students’ mastery of content and skill performance related to occupational therapy evaluation and intervention.

Students’ proficiency in evaluation and intervention, independent decision-making and critical thinking are emphasized during OT Fieldwork II-A and II-B of the curriculum, which occur during the spring quarter of the second professional year and the fall quarter of the third professional year (24 required credits). Fieldwork experiences are offered in clinical, community, hospital, school, and other facilities that have a legal agreement with the University and are located throughout the continental United States.

The Midwestern University College of Health Sciences Occupational Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.

First Professional Year:
Total Quarter Credit Hours Required: 47.5

Fall Quarter
CORE 1560 Interdisciplinary Healthcare 0.5
ANAT 502 Anatomy 4
OTHE 500 Fieldwork I-A 0.5
OTHE 505 Human Conditions I 3
OTHE 510 OT Foundations 2
OTHE 520 Theoretical Constructs I 3
OTHE 540 OT Analysis I 2
Total 15

Winter Quarter
CORE 1570 Interdisciplinary Healthcare 0.5
ANAT 583 Neuroscience I 3
OTHE 525 Human Conditions II 3
OTHE 541 OT Analysis II 2
OTHE 550 Fieldwork Foundations I 1
OTHE 560 Occupational Roles and Participation 2
OTHE 584 Neuroscience II 3
Total 14.5

Spring Quarter
CORE 1580 Interdisciplinary Healthcare 0.5
OTHE 526 Human Conditions III 3
OTHE 528 Research I 3
OTHE 535 OT Group Process 2
OTHE 536 Fieldwork I-B 1
OTHE 551 Fieldwork Foundations II 0.5
OTHE 581 Kinesiology 3
OTHE 585 Evaluation and Treatment I: Foundations 5
Total 18

Second Professional Year:
Total Quarter Credit Hours Required: 61.5

Summer Quarter
Fall Quarter
OTHE 626 Human Conditions IV 3
OTHE 630 Research II 3
OTHE 641 Orthotics I 2
OTHE 655 Evaluation and Treatment II: Children 5
OTHE 661 OT Analysis III 2
Total 15

Winter Quarter
OTHE 636 Fieldwork I-C 1
OTHE 642 Orthotics II 2
OTHE 650 Fieldwork Foundations III 0.5
OTHE 652 Upper Extremity Rehabilitation 4
OTHE 657 Pediatric Practice 3
OTHE 675 Evaluation and Treatment III: Adult 5
OTHE 678 Administration & Leadership 3
Total 18.5

Spring Quarter
OTHE 695 Fieldwork II-A 12
Total 12

Third Professional Year:
Total Quarter Credit Hours Required: 24.5

Summer Quarter
OTHE 720 Theoretical Constructs II 3
OTHE 733 Research IV 3
OTHE 751 Seminar on Clinical Practice 0.5
OTHE 789 Work Rehabilitation & Health Promotion 3
OTHE 794 Program Development 3
Total 12.5

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 502 Anatomy
This course provides fundamental knowledge of human structure and function. The entire human body is reviewed in both lecture and laboratory formats with an emphasis on the upper and lower extremities. Laboratory sessions include study of human cadaver prosections. Student progress is evaluated through written and practical examinations. 4 credits

ANAT 583 Neuroscience I
This is one of two courses designed to develop the student’s knowledge base of neuroscience to a level required for clinical practice. Learning activities in this course will emphasize the structures and corresponding functions of the nervous system in preparation for application of neuroscience principles to the evaluation and treatment of occupational performance. 3 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

OTHE 500 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. 0.5 credits
OTHE 505 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 510 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 520 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 525 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 526 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 528 Research I
This course provides a foundation for understanding and applying quantitative research within the context of developing the skills of an evidence-based practitioner. The course will emphasize the understanding, critiquing and interpreting of basic quantitative research methodologies. Students will participate in data collection, analysis and interpretation of an in-class research study.
3 credits

OTHE 535 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 536 Fieldwork I-B
Fieldwork experience consisting of guided learning experiences in various healthcare 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 540 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 541 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 550 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.
1 credit

OTHE 551 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 to increase self-awareness through self-reflective and experiential
exercises to foster development of professional behaviors.  
0.5 credits

**OTHE 560 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 581 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 584 Neuroscience II**  
This is the second of two courses designed to develop the student’s knowledge base of neuroscience to a level required for clinical practice. Learning activities will emphasize the impact of neurological dysfunction on human occupation and opportunities to apply neuroscience principles to the evaluation and treatment of occupational performance.  
3 credits

**OTHE 585 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 626 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 630 Research II**  
This course provides a foundation for understanding and applying qualitative research within the context of developing the skills to be able to evaluate the trustworthiness of qualitative research reports. The course will emphasize the understanding, critiquing and interpretation of basic qualitative research methodologies. Students will conduct instructor guided small group research studies based on qualitative designs including the development of a research proposal, data collection, analysis, final report of findings, and evaluation of the trustworthiness of the performed study.  
3 credits  
Prerequisites: OTHE 528 Research I

**OTHE 631 Research III**  
This course in combination with Research IV uses the process of conducting a comprehensive systematic review of the research literature to develop advanced skills for evidence based practice. In this course, students begin the process by writing a research question, searching for and extracting data from the evidence, and completing the introduction and methods sections of the systematic review paper.  
3 credits  
Prerequisites: OTHE 630 Research II

**OTHE 636 Fieldwork I-C**  
Fieldwork experience consisting of guided learning experiences in various healthcare 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 641 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 642 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  
Prerequisites: OTHE 641 Orthotics I
OTHE 650 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 to increase self-awareness through self-reflective and experiential exercises to foster development of professional behaviors. 
0.5 credits

OTHE 652 Upper Extremity Rehabilitation
This course focuses 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.
4 credits

OTHE 655 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
Prerequisites: OTHE 585 Evaluation and Treatment I: Foundations

OTHE 657 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.
3 credits
Prerequisites: OTHE 655 Evaluation and Treatment II: Children

OTHE 661 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 662 Physical Agents
This course addresses the theoretical principles and physiological, neurophysiological and electrophysical changes that occur as a result of the application of selected physical modalities. Course content includes information on pain control theories, wound healing principles, and the response of tissue to the application of physical modalities. Therapeutic hydrotherapy, thermotherapy, and electrotherapy, when used as an adjunct to, or in preparation for, therapeutic occupation, is highlighted.
2 credits

OTHE 667 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.
3 credits

OTHE 675 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
Prerequisites: OTHE 655 Evaluation and Treatment II: Children

OTHE 678 Administration & Leadership
Basic administrative skills are emphasized, including strategic planning, business plans, legal issues, fiscal management, reimbursement, organization, and personnel management. These applications will provide the tools for the development of occupational therapy service delivery. Leadership is addressed from organizational and professional perspectives.
3 credits

OTHE 685 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
Prerequisites: OTHE 675 Evaluation and Treatment III: Adult

OTHE 687 Adult Practice
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
Prerequisites: OTHE 675 Evaluation and Treatment III: Adult

OTHE 695 Fieldwork II-A
This three month internship is comprised 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
Prerequisites: Successful completion of all prior courses

OTHE 720 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
Prerequisites: OTHE 520 Theoretical Constructs I

OTHE 733 Research IV
In this course, students complete the systematic review begun in Research III. The students critique, analyze and synthesize the data gathered from existing studies and from this data derive implications for practice. Students write the results and discussion sections of the systematic review paper and provide an oral presentation of their findings.
3 credits
Prerequisites: OTHE 631 Research III

OTHE 751 Seminar on Clinical Practice
This course provides an opportunity for students who have completed Fieldwork II-A to focus on, and refine aspects of clinical practice to enhance their experience and performance in Fieldwork II-B, as well as prepare for their transition from student to entry level practitioner.
0.5 credits

OTHE 789 Work Rehabilitation & 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 794 Program Development
Using skills from the previous administration course, and developing skills in grant-writing, students work in small groups to develop a realistic model for occupational therapy service provision within an agency or institution, private clinic, or community setting. Emerging and non-traditional areas of practice are emphasized.
3 credits
Prerequisites: OTHE 678 Administration & Leadership

OTHE 796 Fieldwork II-B
This three month internship is comprised 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
Prerequisites: Successful completion of all prior courses

ELECTIVE COURSE DESCRIPTIONS

OTHE 800 Independent Study
This course is designed to facilitate additional didactic or clinical endeavors related to a specific component of occupational therapy theory and/or practice. Course content, assignments and learning outcomes are developed in collaboration with the faculty mentor and the student. The Program Director must approve the plan. Course credit is variable depending on the scope of work to be accomplished.
1-3 credits
Prerequisites: Permission of the Instructor

STUDENT ACADEMIC POLICIES

Cardiopulmonary Resuscitation (CPR) Certification
Students are responsible for maintaining CPR certification at Healthcare Provider level or the American Heart Association or American Red Cross basic level while enrolled in the program.
FACULTY

Evelyn Andersson, Ph.D., OTR  
Texas Women’s University  
School of Occupational Therapy  
Assistant Professor

Catana Brown, Ph.D., OTR  
University of Kansas  
College of Education  
Associate Professor

Froma Jacobson, M.Ed., OTR  
Arizona State University  
College of Education  
Assistant Professor

Christine Merchant, Ph.D., OTR  
Touro University International  
College of Health Sciences  
Interim Director and Assistant Professor

Katherine Schofield, DHS, OTR, CHT  
University of Indianapolis  
School of Occupational Therapy  
Assistant Professor

Brenda K. Taubman, M.A., OTR  
University of Phoenix  
College of Business  
Coordinator of Clinical Education and Assistant Professor

Susan Tully, M.S., OTR  
University of North Carolina at Chapel Hill  
Division of Occupational Therapy  
Assistant Professor
MASTER OF ARTS IN BIOMEDICAL SCIENCE DEGREE PROGRAM

MISSION
The Midwestern University Master of Arts in Biomedical Science Program educates and prepares students in the biomedical sciences to be competitive applicants for professional programs or careers in healthcare.

DEGREE DESCRIPTION
The Master of Arts in Biomedical Science (MA) degree is a full-time, three-quarter, graduate level, coursework only program. This program is designed to help students with a bachelor’s degree, preferably with a major in the sciences, improve their academic foundation in the biomedical sciences and augment their credentials for admission into medical school or other health professional program. All students take a minimum of 45 quarter hour credits in the basic sciences, medical ethics and capstone courses. Courses are in disciplines including: biochemistry, molecular cell biology, genetics, histology, human anatomy (with lab), human physiology, microbiology, immunology, pharmacology, and the capstone project. The capstone project includes preparation of a scholarly, literature-based portfolio on a topic of the student’s choice (usually a disease condition) and a presentation of their topic in a poster format. In addition, students are required to take elective credits if needed to bring the total quarter credits to 15 or more credits. The elective credits, offered in a variety of disciplines, include other biomedical science courses and professional preparation courses (e.g. Health Career Planning, Medical Terminology, Learning Styles and Assessment, etc.). These electives improve study skills and enhance the student’s preparation for professional school application.

ADMISSIONS
Admission Requirements
To be considered for admission to the Master of Arts in Biomedical Science degree program, applicants must submit the following documented evidence:

1. Completion of a bachelor’s degree (B.A. or B.S.) or higher, preferably with a major in the sciences, from a regionally accredited college or university.

2. A minimum cumulative grade point average (GPA) of 2.75 on a scale of 4.00 in all coursework completed for their bachelor’s or higher degree program.

3. Two letters of recommendation (or one committee letter from the applicant’s college or university).

4. Official transcripts from each college or university attended.

5. Test scores from one of the following: Graduate Record Examination (GRE), Medical College Admissions Test (MCAT), Pharmacy College Admissions Test (PCAT), Dental Admissions Test (DAT), Optometry Admissions Test (OAT), or other professional program admissions test.

6. Completion of the typical prerequisite coursework for admission into medical, dental, optometry or pharmacy schools, including biology, general chemistry, organic chemistry, physics, and mathematics. Prospective students are responsible for determining the prerequisites for the health professional program and institution of their choice.

7. Completion of the prerequisite courses with grades of C or better (grades of C- are not acceptable).

8. Passage of the Midwestern University criminal background check.

9. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
<th>Qtr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with laboratory</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>General Chemistry with laboratory</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Organic Chemistry with laboratory</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Physics</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

A limited number of transfer credits from other institutions are allowed: 6 semester (9 quarter) hours for the Master of Arts in Biomedical Science. However, this does not remove the requirement to enroll in a minimum of 15 credit hours per quarter.
Application Process and Deadlines
Individuals interested in applying for admission to the Master of Arts in Biomedical Sciences Program must complete an application online form located at: https://mwu.unicas.com/applicant/login

To be considered for admission, applicants must submit:

1. A completed Application for Admission to the Master of Arts in Biomedical Science Program.
2. A nonrefundable, nonwaivable application fee ($50 for the Master’s degree program).
3. Two letters of recommendation (or one committee letter). The Office of Admissions will accept signed and sealed letters from prehealth advisors or committees, science professors, and health professionals.
4. Official transcripts from each college or university attended. Applicants must submit directly to the application service official transcripts from every undergraduate, graduate, or professional school that they have attended or are currently attending. These transcripts must be sealed and signed by the registrar at each institution.
5. Scores from the Medical College Admissions Test (MCAT), Pharmacy College Admissions Test (PCAT), Graduate Record Examination (GRE), Dental Admissions Test (DAT), Optometry Admissions Test (OAT), or other professional program admissions test.

The Biomedical Sciences Program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Master of Arts in Biomedical Science Program begins in the Fall Quarter. Admission to the Biomedical Sciences Program is considered on a competitive basis for applicants who have completed the required prerequisites. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee feels would benefit the most from the Program. Selection decisions for the Program are made by the Biomedical Sciences Program Admissions Committee with the approval of the Program Director and the Dean of the College of Health Sciences until the class is filled. To maximize their competitiveness within our rolling admission process, candidates are advised to submit their completed applications early in the admission cycle. No applications will be accepted after July 15th.

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Interview and Selection Process
After receiving completed application packets, the information provided is verified to determine whether all prerequisite coursework has been completed satisfactorily or will be completed prior to potential matriculation and also to verify the cumulative GPAs for applicants for all completed courses. The application materials are reviewed to determine eligibility for interviews, which are offered by invitation only. A phone interview is possible for those applicants who are unable to schedule an interview in person. Completed applications and interview summaries are forwarded to the Biomedical Sciences Program Admissions Committee. Applicants will receive notification in writing of admissions decisions.

Please Note: Applicants may track the receipt of their application materials and the status of their files on the University’s website with the instructions for accessing their account information that will be sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address or e-mail address.

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (Program) would need to make that would allow the candidate to complete the curriculum. The College (Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.

2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.

3. Submit completed medical files documenting completion of a physical exam, immunizations and tuberculosis testing as instructed by the Office of Student Services and detailed in the Student Handbook.

4. Meet the Technical Standards for the college.

5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

**GRADUATION REQUIREMENTS**
To qualify for graduation, students must:

1. Follow an approved course of study acceptable to the Biomedical Sciences Program Student Academic Review Committee.
2. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.75 for the Master of Arts in Biomedical Science degree.
3. Satisfactorily complete the required minimum of 45 quarter hour credits for the Master of Arts in Biomedical Science degree program.
4. Receive a favorable recommendation for Master’s degree conferral from the Program Student Academic Review Committee and from the CHS Student Promotion and Graduation Committee.
5. Receive a favorable recommendation for Master’s degree conferral from the University Faculty Senate.
6. Settle all financial accounts with the University.
7. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

**CURRICULUM**
Sample curriculum, course credits, and sequencing
Not all electives are offered every year.

MWU/CHS Biomedical Sciences Program reserves the right to alter its curriculum, however and whenever it deems appropriate.

**Fall Quarter**
Total Minimum Quarter Credit Hours Required 15

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ANAT 503</td>
<td>Human Anatomy with Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BMED 500</td>
<td>Introduction to Capstone Course</td>
<td>1</td>
</tr>
<tr>
<td>BMED 550</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BMED 554</td>
<td>Molecular Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1571</td>
<td>Human Physiology I</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
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**Elective Course Options**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BMED 805</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>BMED 808</td>
<td>Learning Styles and Assessment</td>
</tr>
<tr>
<td>BMED 821</td>
<td>Emerging Infectious Diseases</td>
</tr>
<tr>
<td>BMED 845</td>
<td>Oncology</td>
</tr>
<tr>
<td>BMED 871</td>
<td>Medicinal Chemistry I</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</table>

**Winter Quarter**
Total Minimum Quarter Credit Hours Required 15

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BMED 516</td>
<td>Introduction to Medical Ethics</td>
<td>2</td>
</tr>
<tr>
<td>BMED 524</td>
<td>Immunology</td>
<td>2</td>
</tr>
<tr>
<td>BMED 525</td>
<td>Microbiology I</td>
<td>2</td>
</tr>
<tr>
<td>BMED 574</td>
<td>Pharmacology I</td>
<td>3</td>
</tr>
<tr>
<td>HIST 502</td>
<td>Histology</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 1582</td>
<td>Human Physiology II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Elective Course Options**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOC 850</td>
<td>Nutritional Biochemistry</td>
</tr>
<tr>
<td>BMED 511</td>
<td>Research Design and Statistics</td>
</tr>
<tr>
<td>BMED 830</td>
<td>Topics in Cardiovascular Sciences</td>
</tr>
<tr>
<td>BMED 834</td>
<td>Embryology</td>
</tr>
<tr>
<td>BMED 870</td>
<td>Drug Literature Evaluation</td>
</tr>
<tr>
<td>BMED 872</td>
<td>Medicinal Chemistry II</td>
</tr>
<tr>
<td>BMED 876</td>
<td>Pharmacognosy</td>
</tr>
<tr>
<td>BMED 878</td>
<td>Drugs of Addiction</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Spring Quarter**
Total Minimum Quarter Credit Hours Required 15

**Required Courses**
Required Courses

BMED 526 Microbiology II 4
BMED 541 Genetics 3
BMED 575 Pharmacology II 4
BMED 590 Capstone Course 2
Total 13

Elective Course Options: 2 Elective Credits

Required
BMED 801 Health Career Planning 2
BMED 828 Public Health and Epidemiology 3
BMED 863 Neuroscience 3
BMED 865 Pathophysiology 2
BMED 873 Medicinal Chemistry III 1.5
PSCI 1306 Dangerous Plants and Animals 1.5
Total

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 503 Human Anatomy with Laboratory
This course provides an introduction to the study of human anatomy in a lecture and laboratory format. The course focuses on the gross anatomy of the body cavities, upper extremity, and head. Relevant embryological development of these regions is also included. Laboratory sessions include study of human cadaver prosections and dissection of portions of other vertebrate specimens. Student progress is evaluated through written and practical examinations. 4 credits

BMED 500 Introduction to Capstone Course
This course helps the student begin the necessary preparation for the Capstone Project; an integrative summation of learning on a selected topic presented in a portfolio and poster in the spring quarter. The course will focus on poster topic selection, including basic science aspects, and the requirements for the Capstone Portfolio. Successful completion of the course requires selecting partners, identifying a disease/healthcare topic and biomedical focus, submitting a proposed poster outline, and developing a Portfolio Education Plan. 1 credit

BMED 516 Introduction to Medical Ethics
The objectives of this course are to improve critical thinking skills, introduce argumentation and argumentative writing, and to familiarize the student with some of the prominent ethical dilemmas in contemporary clinical medicine. 2 credits

BMED 524 Immunology
This is a basic immunology course focusing on the concepts and components of the human immune system, with clinical examples presented when appropriate for enhancing comprehension of the material. The course will discuss established paradigms, experimental approaches, and biotechnological applications of immunology. Instruction and assessment will focus on acquisition and application of basic knowledge, as well as creative and critical thinking skills. 2 credits

BMED 525 Microbiology I
This introduction to the central concepts of microbiology is intended to orient students to current ideas and directions in microbiology. Objectives include: 1) introduce the basic structures and biological activities of the major groups of microbiota, 2) develop an understanding of the relationship between microbes, and between microbes and their hosts, and 3) provide students with an appreciation of the relationship between microbial evolution and disease. The course includes student reviews of the microbiological literature, discussion of concepts, and integration of topics. 2 credits

Prerequisites: BMED 550 Biochemistry

BMED 526 Microbiology II
This course uses the transcendent concepts introduced in BMED 525 Microbiology I to study infection, mechanisms of pathogenicity, and specific bacterial, viral, fungal and parasitic diseases. The course includes student reviews of the microbiological literature, discussion of concepts, and integration of current topics. 4 credits

Prerequisites: BMED 524 Immunology; BMED 525 Microbiology I

BMED 541 Genetics
This lecture course will introduce the student to the principles of genetics from a medical perspective, with specific topics drawn from classical, population, quantitative, and molecular genetics. The course will include topics such as clinical cytogenetics, genetics of common disorders, genetic counseling, and personalized genetic medicine, in addition to the Mendelian transmission of traits, the Central Dogma and the analysis of protein structure and function, an understanding of biological variation in populations, and principles of polygenetic inheritance. 3 credits
**BMED 550 Biochemistry**
This course covers the structures, properties, chemistry, and metabolism of proteins, nucleic acids, carbohydrates, and lipids within the context of human biochemistry. The regulation and integration of metabolism at the cellular and tissue levels within the human body during the fed and fasting states will be emphasized. Correlations to disease processes are used to illustrate clinical applications of biochemical concepts. Critical thinking and problem solving skills are developed with problem sets.
3 credits

**BMED 554 Molecular Cell Biology**
This course is designed to provide students with a comprehensive overview of the function of eukaryotic cells at the molecular level. Topics covered include cell structure, gene transcription, translation, regulation of gene expression, DNA replication, cell signaling, regulation of cell growth and differentiation. Critical thinking and problem solving skills are developed using problem sets.
3 credits

**BMED 574 Pharmacology I**
This course begins with principles of pharmacodynamics and pharmacokinetics as related to humans. The underlying physiology and pathology of disease is discussed as students learn about common drugs affecting major organ systems of the body, in particular the autonomic nervous system.
3 credits

**BMED 575 Pharmacology II**
This course continues on the material presented in BMED 574, covering pathophysiology and drugs of the cardiovascular and renal systems, the central nervous system, hemostasis, the autocoys, the respiratory system, the gastrointestinal system, the endocrine system, and chemotherapy.
4 credits

**BMED 590 Capstone Course**
This course represents the integrative summation of the required coursework in the Master’s curriculum. Successful completion of the course requires the preparation of a scholarly, literature-based portfolio on a topic of the student’s choice (usually a disease condition) and presentation of the topic in a research poster format. Throughout the course, the student is required to show progression on their topic through submission of outlines and drafts of their portfolio and poster presentation.
2 credits
Prerequisites: Successful completion of the first two quarters of the MA curriculum

**HIST 502 Histology**
The purpose of histology is to acquire a basic foundation in the structure of cells, tissues, and selected organ systems. This knowledge assists the healthcare professional in interpreting laboratory test results and in assessing normal versus pathologic structure. The histology terminology taught is the vocabulary for continuing medical education used throughout the healthcare professional’s career. (Core Sequence 1)
2 credits

**PHYS 1571, 1582 Human Physiology I, II**
In this two-quarter series, students are introduced to the basic physiological principles that underlie normal function of various organs and organ systems. Emphasis is given to developing an understanding of health in physiological terms and appreciating 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.
Each course 4 credits

**ELECTIVES**
Not all electives are offered every year.

**BIOC 850 Nutritional Biochemistry**
This course examines the impact of nutrients and energy balance on health and well being of humans throughout the life cycle. In addition, the course explores the role of nutrition in several multifactorial human diseases.
3 credits

**BMED 611 Research Design and Statistics**
This course provides an overview of research designs and basic statistical approaches used in basic science, applied and descriptive research. The course teaches basic research skills used in all disciplines of the health professions, lays the groundwork for each student’s master’s project, and aids in the interpretation of research presented in the literature.
3 credits

**BMED 801 Health Career Planning**
The purpose of this course is to help students understand the admissions process for postbaccalaureate programs in medicine, dentistry, pharmacy, and other health professional programs. This is accomplished by discussing the variety of healthcare professions available and assisting the student in the skills necessary to be a successful candidate (interviewing skills, writing a personal statement, creating a resume, and selecting an appropriate professional school).
2 credits

**BMED 805 Medical Terminology**
This course is intended to broaden the students’ understanding of the lexicon for the medical sciences. The course format includes lectures, readings, and discussions designed to facilitate an understanding of the roots of medical
terms. Upon completion of the course, students are expected to describe and apply the basic principles of root words, suffixes, and prefixes of medical terms.

2 credits

BMED 808 Learning Styles and Assessment
In this course, students will identify their predominant learning styles and explore methods to improve study habits and learning effectiveness. The course will also explore barriers to learning and how they can be assessed and treated.
1 credit

BMED 821 Emerging Infectious Diseases
Following a series of introductory lectures on the special properties of newly emergent diseases, students research and present selected topics in infectious diseases currently recognized as emerging by the Center for Disease Control (CDC). An important aim of the course is to introduce students to literature research methods and to refine presentation skills within the biomedical and public health context.
1 credit

BMED 828 Public Health and Epidemiology
Using a blended format (in-class and online) with emphasis on discussion and personal discovery, this course will introduce the student to public health, environmental health and epidemiology. It will increase awareness of public health activities and foster critical review of public health data found in news articles and professional journals. A student completing this course should have a better understanding of public health as well as how it can become part of a professional career.
3 credits

BMED 830 Topics in Cardiovascular Sciences
This course provides a general knowledge of the most important and life-threatening types of cardiovascular disease, as well as the cellular and molecular mechanisms underlying the pathogenesis, and the current scientific approaches to investigate these diseases. The course will also introduce and explore the latest therapeutic approaches in the field of cardiovascular diseases.
3 credits

BMED 834 Embryology
This course is designed to introduce students to the formation of the human body. In addition to learning about the normal development, students will learn about numerous types of birth defects.
3 credits

BMED 845 Oncology
This course is an introduction to cancer and the biological aspects of tumor growth with emphasis on the development and progression of cancer. Selected methods of cancer diagnosis and therapy are discussed based on reviews of current literature.
3 credits

BMED 863 Neuroscience
This course is an introductory survey intended to provide the student with a basic understanding of the nervous system at the cellular level. Topics of focus include basic neuronal function, development of the nervous system, sensory perception, and prevalent cognitive and neurodegenerative diseases. This is an interdisciplinary course that will integrate basic concepts in cellular biology, pharmacology and physiology as well as provide insight to the most recent advances in our understanding of neuropathology.
3 credits

BMED 865 Pathophysiology
This course will introduce the student to current literature relating to pathophysiology and how it is presented to clinicians. Students will read recent review articles relating to new findings about selected diseases. From the review articles, several research articles will be selected to read and discuss in depth. The purpose of the course is to expose the student to the latest developments in pathophysiology and how they relate to courses taken in the Biomedical Sciences program.
2 credits
Prerequisites: BMED 574 Pharmacology; PHYS 1571 Human Physiology I; PHYS 1582 Human Physiology II

BMED 870 Drug Literature Evaluation
This course introduces, discusses and applies primary, secondary and tertiary references commonly encountered in medical/pharmaceutical education.
1.5 credits

BMED 871, 872, 873 Medicinal Chemistry I, II, III
These courses discuss the chemistry of therapeutic agents – drugs. BMED 871 focuses on functional chemical groups and drug metabolism. BMED 872 and BMED 873 are coupled to the two pharmacology core courses by integrating the importance of chemical structure-activity relationships on a topic by topic basis. Each course 1.5 credits

BMED 876 Pharmacognosy
Pharmacognosy is the discipline involved with the discovery, processing and formulation of drugs from natural sources. This course will cover the major classes of natural drugs including the glycosides, terpenoids, alkaloids, proteins, antibiotics and vaccines. In addition, newer sources of natural drugs such as the dynamic marine pharmacognosy and pharmacobiotechnology will be introduced.
2 credits
BMED 878 Drugs of Addiction
This course will provide students with an understanding of the psychological, as well as the pharmacological, effects of the common drugs of addiction. The following drugs and drug classes will be reviewed: alcohol, stimulants, nicotine, hallucinogens, inhalants, sedatives, and opioids. Topics covered include preferred routes of administration, absorption, distribution, mechanisms of action, tolerance and withdrawal. Particular emphasis will be placed on abuse potential, addictive behaviors and societal impact associated with each substance.
2 credits

PSCI 1306 Dangerous Plants and Animals
This course focuses on the recognition and identification of dangerous plants and animals found primarily, but not exclusively, in Arizona. The student will learn to assess poisoning situations and recommend management scenarios. Lectures and workshops involving case studies and field trips will be utilized.
1.5 credits

MASTER OF BIOMEDICAL SCIENCES DEGREE PROGRAM

MISSION
The Midwestern University Master of Biomedical Science Program educates and prepares students in the biomedical sciences to be competitive applicants for careers in a wide range of health-related fields, as well as for additional academic and professional training.

DEGREE DESCRIPTION
The Master of Biomedical Sciences (MBS) Program is designed as a full-time, 21 month, 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 as technicians and supervisors in the biotechnology, biosafety, and pharmaceutical industry; research personnel in biomedical science laboratories; employees in governmental and regulatory agencies; and faculty for undergraduate teaching programs.

The 88.5-quarter-hour (minimum) master’s degree curriculum is usually completed in 21-24 months. All students must complete the program within three years of matriculation, excepting approved leaves of absence. All students are required to complete a research project approved by the student’s research committee. The required curriculum includes basic science courses in biochemistry; molecular and cellular biology; genetics; and physiology. Students must also complete at least one additional basic science sequence; microbiology and immunology; pharmacology; and/or histology and anatomy. In addition to the basic science courses, the student must take a series of research courses that prepares them for a research project and thesis that is the culmination of the degree program. The research courses include Research Topics and Methods, Research Design and Statistics, Advanced Research Design and Statistics, Good Laboratory Practice, Journal Club, Laboratory Rotations, Philosophical Foundations of Research, Research Literature Review, Research Protocol, Research Seminar, Laboratory Research, and Research Thesis. Finally, a series of electives and independent study courses are available. The electives allow the student to further specify an area of interest to better prepare them for a career in their chosen field.

ADMISSIONS

Admission Requirements
To be considered for admission to the Master of Biomedical Sciences degree program, applicants must submit the following documented evidence:

1. Completion of a bachelor’s degree (B.A. or B.S.) or higher, preferably with a major in the sciences, from a regionally accredited college or university.
2. A minimum cumulative grade point average (GPA) of 2.75 on a scale of 4.00 in all coursework completed for their bachelor’s or higher degree program.
3. Two letters of recommendation (or one committee letter from applicant’s college or university).
4. Official transcripts from each college or university attended.
5. Test scores from one of the following: Graduate Record Examination (GRE), Medical College Admissions Test (MCAT), Pharmacy College Admissions Test (PCAT), Dental Admissions Test (DAT), Optometry Admissions Test (OAT), or other professional program admissions test.
6. Completion of the typical prerequisite coursework for admission into medical, dental, optometry or pharmacy schools, such as: biology, general chemistry, organic chemistry, physics and mathematics are strongly recommended. Prospective students are responsible for determining the prerequisites for the health professional program and institution of their choice.
7. Passage of the Midwestern University criminal background check.
8. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

A limited number of transfer credits from other institutions are allowed: 6 semester (9 quarter) hours for the Master in Biomedical Sciences.
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1. A completed Application for Admission to the Master of Biomedical Sciences Program.
2. A nonrefundable, nonwaivable application fee ($50 for the Master’s degree program).
3. Two letters of recommendation (or one committee letter). The Office of Admissions will accept signed and sealed letters from prehealth advisors or committees, science professors, and health professionals.
4. Official transcripts from each college or university attended. Applicants must submit directly to the application service official transcripts from every undergraduate, graduate, or professional school they have attended or are currently attending. These transcripts must be signed and sealed by the registrar at each institution.
5. Scores from the Medical College Admissions Test (MCAT), Pharmacy College Admissions Test (PCAT), Graduate Record Examination (GRE), Dental Admissions Test (DAT), Optometry Admissions Test (OAT) or other professional program admissions tests.

The Biomedical Sciences Program uses a rolling admission process in which completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. The Master of Biomedical Sciences Program begins in the Fall Quarter. Admission to the Biomedical Sciences Program is considered on a competitive basis for applicants who have completed the required prerequisites. Multiple criteria are used to select the most qualified candidates, including selection of those students the Admissions Committee feels would benefit the most from the Program. Selection decisions for the Program are made by the Biomedical Sciences Program Admissions Committee with the approval of the Program Director and the Dean of the College of Health Sciences until the class is filled. To maximize their competitiveness within our rolling admission process, candidates are advised to submit their completed applications early in the admission cycle. No applications will be accepted after July 15th.

International Applicants

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Interview and Selection Process

After receiving completed application packets, the information provided is verified to determine whether all prerequisites have been completed satisfactorily or will be completed prior to potential matriculation and also to verify the cumulative GPAs for all completed courses. The application materials are reviewed to determine eligibility for interviews, which are offered by invitation only. A phone interview is possible for those applicants who are unable to schedule an interview in person. Completed applications and interview summaries are forwarded to the Biomedical Sciences Program Admissions Committee. Applicants will receive notification in writing of admissions decisions.

Please Note: Applicants may track the receipt of their application materials and the status of their files on the University’s website using instructions for accessing account information that will be sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their telephone number, mailing address or e-mail address. All requests for application withdrawals must be made in writing to the Office of Admissions.
Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (/Program) would need to make that would allow the candidate to complete the curriculum. The College (/Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.

2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.

3. Submit completed medical files documenting completion of a physical exam, immunizations and tuberculosis testing as instructed by the Office of Student Services and detailed in the Student Handbook.

4. Meet the Technical Standards for the college.

5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.

6. Submit additional documents as requested by the Office of Admissions or college.

7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must
prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.

8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

GRADUATION REQUIREMENTS
To qualify for graduation, students must:

1. Follow an approved course of study acceptable to the Biomedical Sciences Program Student Academic Review Committee.
2. Satisfactorily complete all courses with a minimum cumulative grade point average of 2.75 for the Master in Biomedical Sciences degree.
3. Satisfactorily complete the required minimum of 88.5 quarter hour credits for the Master of Biomedical Sciences degree program.
4. Receive a favorable recommendation for Master’s degree conferral from the Program Student Academic Review Committee and from the CHS Student Promotion and Graduation Committee.
5. Receive a favorable recommendation for Master’s degree conferral from the University Faculty Senate.
6. Settle all financial accounts with the University.
7. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

CURRICULUM
First Year Curriculum
Sample curriculum, course credits, and sequencing. Not all electives are offered every year.

MWU/CHS Biomedical Sciences Program reserves the right to alter its curriculum however and whenever it deems appropriate.

First year elective courses are also available to second year students.

Fall Quarter
Total Minimum Quarter Credit Hours Required 12

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ANAT</td>
<td>503</td>
<td>Human Anatomy with Laboratory</td>
<td>4</td>
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<tr>
<td>BMED</td>
<td>510</td>
<td>Research Topics and Methods</td>
<td>2</td>
</tr>
<tr>
<td>BMED</td>
<td>519</td>
<td>Laboratory Rotation</td>
<td>1.5</td>
</tr>
<tr>
<td>BMED</td>
<td>550</td>
<td>Biochemistry</td>
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<tr>
<td>BMED</td>
<td>554</td>
<td>Molecular Cell Biology</td>
<td>3</td>
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<tr>
<td>PHYS</td>
<td>1571</td>
<td>Human Physiology I</td>
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<tr>
<td>BMED</td>
<td>805</td>
<td>Medical Terminology</td>
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<td>BMED</td>
<td>808</td>
<td>Learning Styles and Assessment</td>
<td>1</td>
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<td>BMED</td>
<td>821</td>
<td>Emerging Infectious Diseases</td>
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<td>BMED</td>
<td>845</td>
<td>Oncology</td>
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<td>BMED</td>
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<td>Medicinal Chemistry I</td>
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<td>Winter Quarter</td>
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<th>Credit Hours</th>
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<td>Journal Club</td>
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<tr>
<td>BMED</td>
<td>512</td>
<td>Research Literature Review</td>
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<tr>
<td>BMED</td>
<td>524</td>
<td>Immunology</td>
<td>2</td>
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<tr>
<td>BMED</td>
<td>525</td>
<td>Microbiology I</td>
<td>2</td>
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<tr>
<td>BMED</td>
<td>574</td>
<td>Pharmacology I</td>
<td>3</td>
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<tr>
<td>BMED</td>
<td>580</td>
<td>Laboratory Research</td>
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<td>HIST</td>
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<td>Histology</td>
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<tr>
<td>PHYS</td>
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<td>Total</td>
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<table>
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<th>Elective Course Options</th>
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<th>Credit Hours</th>
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<tr>
<td>BIOC</td>
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<td>Nutritional Biochemistry</td>
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<tr>
<td>BMED</td>
<td>516</td>
<td>Introduction to Medical Ethics</td>
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<tr>
<td>BMED</td>
<td>830</td>
<td>Topics in Cardiovascular Sciences</td>
<td>3</td>
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<tr>
<td>BMED</td>
<td>834</td>
<td>Embryology</td>
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<tr>
<td>BMED</td>
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<td>Drug Literature Evaluation</td>
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<tr>
<td>BMED</td>
<td>872</td>
<td>Medicinal Chemistry II</td>
<td>1.5</td>
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<tr>
<td>BMED</td>
<td>876</td>
<td>Pharmacognosy</td>
<td>2</td>
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135
BMED 878 Drugs of Addiction 2
Total  
Spring Quarter
Total Minimum Quarter Credit Hours Required 12

Core Requirements
BMED 506 Journal Club 1
BMED 515 Research Protocol 2
BMED 526 Microbiology II 4
BMED 541 Genetics 3
BMED 575 Pharmacology II 4
BMED 581 Laboratory Research 1-5
Total 12-21

Elective Course Options
BMED 801 Health Career Planning 2
BMED 828 Public Health and Epidemiology 3
BMED 863 Neuroscience 3
BMED 865 Pathophysiology 2
BMED 873 Medicinal Chemistry III 1.5
PSCI 1306 Dangerous Plants and Animals 1.5
Total 12-21

Second Year Curriculum
Sample curriculum, course credits, and sequencing. Not all electives are offered every year.
MWU/CHS Biomedical Sciences Program reserves the right to alter its curriculum however and whenever it deems appropriate.
First year elective courses are also available to second year students.
In addition to core requirements listed, students must complete a minimum of 24 credit hours in Laboratory Research and 4 credit hours in Research Thesis. Students must take a combination of additional elective, Laboratory Research, or Research Thesis credit hours to reach the minimum 88.5 credit hours required for graduation.

Summer Quarter
Total Minimum Quarter Credit Hours Required 12
Core Requirements
BMED 607 Journal Club 1
BMED 612 Good Laboratory Practice 1
BMED 682 Laboratory Research 1-10
BMED 693 Research Thesis 1-4
Total 12-16

Fall Quarter
Total Minimum Quarter Credit Hours Required 12
Core Requirements
BMED 608 Journal Club 1
BMED 611 Research Design and Statistics 3
BMED 617 Philosophical Foundations of Research 2.5
BMED 683 Laboratory Research 1-10
BMED 690 Research Thesis 1-4
Total 12-13

Winter Quarter
Total Minimum Quarter Credit Hours Required 12
Core Requirements
BMED 609 Journal Club 1
BMED 614 Advanced Research Design and Statistics 3
BMED 684 Laboratory Research 1-10
BMED 691 Research Thesis 1-4
BMED 698 Research Seminar 1
Total 12-19

Spring Quarter
Total Maximum Quarter Credit Hours Required 12
Core Requirements
BMED 692 Research Thesis 1-4
Total 12-14

Elective courses with quarters to be determined

Elective Courses
BMED 813 Writing for Publication 3
BMED 818 Grant Writing in the Health Sciences 3
BMED 865 Pathophysiology 2
BMED 891, 892 Advanced Topics I, II Each course 1-3
BMED 893 Special Topics 1-3
Total 12-21
** 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 503 Human Anatomy with Laboratory **
This course provides an introduction to the study of human anatomy in a lecture and laboratory format. The course focuses on the gross anatomy of the body cavities, upper extremity, and head. Relevant embryological development of these regions is also included. Laboratory sessions include study of human cadaver prosections and dissection of portions of other vertebrate specimens. Student progress is evaluated through written and practical examinations.

4 credits

** BMED 505-609 Journal Club **
This 5-quarter sequence consists of weekly meetings for in-depth discussions of current research articles. These classes will greatly enhance the opportunities for students to develop their critical thinking skills. In the Winter Quarter, both first-year and second-year students will be in the class, allowing interactions between advanced and beginning students.

Each course 1 credit

** BMED 510 Research Topics and Methods **
The course explores a variety of research and professional issues pertinent to the basic scientist such as current policy, bioethical issues, and funding issues. Fundamentals of the scientific method and its limitations, research design, descriptive statistics, and information gathering are also discussed. The format of the class includes both lecture and small group discussion. The course is intended to provide each student with a broad understanding of professional research topics and issues with a view toward stimulating ideas for the master’s research project.

2 credits

** BMED 512 Research Literature Review **
This course is an independent study course designed to give master’s students the opportunity to perform the literature research necessary for completion of the Master of Biomedical Sciences degree.

2 credits

** BMED 515 Research Protocol **
This course is an independent study course designed to give master’s students the opportunity to develop a specific, comprehensive research protocol that will be implemented during completion of the Master of Biomedical Sciences Degree.

2 credits

Prerequisites: BMED 512 Research Literature Review

** BMED 519 Laboratory Rotation **
Rotations are designed to introduce students to laboratory research in a practical setting. They also assist the student in choosing a laboratory for thesis work. The quarter will be divided into three, 3-week sections. In each section, students will perform a 20-hour rotation in a research laboratory under the supervision of a faculty preceptor. During rotations, students will learn laboratory safety, notebook keeping, and basic laboratory techniques.

1.5 credits

** BMED 524 Immunology **
This is a basic immunology course focusing on the concepts and components of the human immune system, with clinical examples presented when appropriate for enhancing comprehension of the material. The course will discuss established paradigms, experimental approaches, and biotechnological applications of immunology. Instruction and assessment will focus on acquisition and application of basic knowledge, as well as creative and critical thinking skills.

2 credits

** BMED 525 Microbiology I **
This introduction to the central concepts of microbiology is intended to orient students to current ideas and directions in microbiology. Objectives include: 1) introduce the basic structures and biological activities of the major groups of microbiota, 2) develop an understanding of the relationship between microbes, and between microbes and their hosts, and 3) provide students with an appreciation of the relationship between microbial evolution and disease. The course includes student reviews of the microbiological literature, discussion of concepts, and integration of topics.

2 credits

Prerequisites: BMED 550 Biochemistry

** BMED 526 Microbiology II **
This course uses the transcendent concepts introduced in BMED 525 Microbiology I to study infection, mechanisms of pathogenicity, and specific bacterial, viral, fungal and parasitic diseases. The course includes student reviews of the microbiological literature, discussion of concepts, and integration of current topics.

4 credits

Prerequisites: BMED 524 Immunology; BMED 525 Microbiology I

** BMED 541 Genetics **
This lecture course will introduce the student to the principles of genetics from a medical perspective, with specific topics drawn from classical, population, quantitative, and molecular genetics. The course will include topics such as clinical cytogenetics, genetics of common disorders, genetic counseling, and personalized genetic medicine, in addition to the Mendelian transmission of traits, the Central Dogma and the analysis of protein structure and function, an understanding of biological variation in populations, and
principles of polygenic inheritance.
3 credits

**BMED 550 Biochemistry**
This course covers the structures, properties, chemistry, and metabolism of proteins, nucleic acids, carbohydrates, and lipids within the context of human biochemistry. The regulation and integration of metabolism at the cellular and tissue levels within the human body during the fed and fasting states will be emphasized. Correlations to disease processes are used to illustrate clinical applications of biochemical concepts. Critical thinking and problem solving skills are developed with problem sets.
3 credits

**BMED 554 Molecular Cell Biology**
This course is designed to provide students with a comprehensive overview of the function of eukaryotic cells at the molecular level. Topics covered include cell structure, gene transcription, translation, regulation of gene expression, DNA replication, cell signaling, regulation of cell growth and differentiation. Critical thinking and problem solving skills are developed using problem sets.
3 credits

**BMED 574 Pharmacology I**
This course begins with principles of pharmacodynamics and pharmacokinetics as related to humans. The underlying physiology and pathology of disease is discussed as students learn about common drugs affecting major organ systems of the body, in particular the autonomic nervous system.
3 credits

**BMED 575 Pharmacology II**
This course continues on the material presented in BMED 574, covering pathophysiology and drugs of the cardiovascular and renal systems, the central nervous system, hemostasis, the autocooids, the respiratory system, the gastrointestinal system, the endocrine system, and chemotherapy.
4 credits

**BMED 580-689 Laboratory Research**
The program culminates in a laboratory or clinical research project. It is the student’s responsibility to identify a research mentor and laboratory (or clinical setting) in which to conduct their research. The student is required to take one or more credits of Laboratory Research each quarter beginning spring of the first year. Credits taken each quarter will depend on the research project, elective courses, and credits needed to retain full time status. A minimum of 24 credit hours is required for the degree. There is no limit to the number of research credits that can be taken.
Per quarter 1-10 credits
Prerequisites: BMED 510 Research Topics and Methods

**BMED 611 Research Design and Statistics**
This course provides an overview of research designs and basic statistical approaches used in basic science, applied and descriptive research. The course teaches basic research skills used in all disciplines of the health professions, lays the groundwork for each student’s master’s project, and aids in the interpretation of research presented in the literature.
3 credits

**BMED 612 Good Laboratory Practice**
This course reviews requirements and regulations of the Food and Drug Administration, Environmental Protection Agency and International Organization for Economic Cooperation and Development. Compliance issues and inspection procedures are covered for organizations involved in product safety testing in animals and the environment. A historical perspective is presented as to the development of the regulations and non-traditional safety testing. Quality assurance programs and management’s responsibility will also be discussed.
1 credit

**BMED 614 Advanced Research Design and Statistics**
This course follows from BMED 511 Research Design and Statistics and reviews advanced statistics used in biomedical and educational research. Topics covered include two and three-way analysis of variance, multiple regression and correlation analysis, nested designs, post hoc analysis, advanced non-parametric analysis, meta analysis, survey design, etc.
3 credits
Prerequisites: BMED 611 Research Design and Statistics

**BMED 690-697 Research Thesis**
The thesis is the culmination of the program. It describes the objective, research question, and design of the project; data analysis; and conclusions based on the information gathered. The student’s Research Committee approves the proposal, oversees the research project, and approves the final research thesis. Credits taken each quarter will depend on the research project, laboratory research, elective courses, and credits needed to retain full time status. A minimum of 4 credit hours is required for the degree.
Per quarter 1-4 credits
Prerequisites: BMED 510 Research Topics and Methods; BMED 512 Research Literature Review; BMED 515 Research Protocol; BMED 611 Research Design and Statistics

**BMED 698 Research Seminar**
This course is designed to expose students to a variety of scientific disciplines and projects, accomplished by attendance at the research faculty seminar series. Additionally, each student will be expected to present a seminar to the faculty on the subject of his or her choice.
1 credit
HIST 502 Histology
The purpose of histology is to acquire a basic foundation in the structure of cells, tissues, and selected organ systems. This knowledge assists the healthcare professional in interpreting laboratory test results and in assessing normal versus pathologic structure. The histology terminology taught is the vocabulary for continuing medical education used throughout the healthcare professional’s career.
2 credits

PHYS 1571, 1582 Human Physiology I, II
In this two-quarter series, students are introduced to the basic physiological principles that underlie normal function of various organs and organ systems. Emphasis is given to developing an understanding of health in physiological terms and appreciating 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.
Each course 4 credits

ELECTIVES
Not all electives are offered every year.

BIOC 850 Nutritional Biochemistry
This course examines the impact of nutrients and energy balance on health and well being of humans throughout the life cycle. In addition, the course explores the role of nutrition in several multifactorial human diseases.
3 credits

BMED 516 Introduction to Medical Ethics
The objective of this course are to improve critical thinking skills, introduce argumentation and argumentative writing, and to familiarize the student with some of the prominent ethical dilemmas in contemporary clinical medicine.
2 credits

BMED 801 Health Career Planning
The purpose of this course is to help students understand the admissions process for postbaccalaureate programs in medicine, dentistry, pharmacy, and other health professional programs. This is accomplished by discussing the variety of healthcare professions available and assisting the student in the skills necessary to be a successful candidate (intererviewing skills, writing a personal statement, creating a resume, and selecting an appropriate professional school).
2 credits

BMED 805 Medical Terminology
This elective is intended to broaden the students’ understanding of the lexicon for the medical sciences. The course format includes lectures, readings, and discussions designed to facilitate an understanding of the roots of medical terms. Upon completion of the course, students are expected to describe and apply the basic principles of root words, suffixes, and prefixes of medical terms.
2 credits

BMED 808 Learning Styles and Assessment
In this elective course, students will identify their predominant learning styles and explore methods to improve study habits and learning effectiveness. The course will also explore barriers to learning and how they can be assessed and treated.
1 credit

BMED 813 Writing for Publication
Scientific writing is a specialized discipline which clearly, accurately and concisely conveys ideas and information. This course is designed to help students organize and write a research paper, produce supporting figures and tables, recognize and emulate quality writing, and understand the editorial process that is central to ensuring quality scientific literature. Students are assessed based on the production of a manuscript suitable for submission as a publication using their own research data.
3 credits

BMED 818 Grant Writing in the Health Sciences
This course is designed to teach students the process of writing a complete grant that meets requirements for federal grant applications. Each student learns to identify appropriate funding sources, plan a research project, organize data, write a research project budget, develop specific aims, and reference the most appropriate literature. The course culminates in a written grant proposal suitable for submission.
3 credits

BMED 821 Emerging Infectious Diseases
Following a series of introductory lectures on the special properties of newly emergent diseases, students research and present selected topics in infectious diseases currently recognized as emerging by the Center for Disease Control (CDC). An important aim of the course is to introduce students to literature research methods and to refine presentation skills within the biomedical and public health context.
1 credit

BMED 828 Public Health and Epidemiology
Using a blended format (in-class and online) with emphasis on discussion and personal discovery, this course will introduce the student to public health, environmental health and epidemiology. It will increase awareness of public health activities and foster critical review of public health data found in news articles and professional journals. A student completing this course should have a better understanding of public health as well as how it can become part of a
professional career.
3 credits

**BMED 830 Topics in Cardiovascular Sciences**
This course provides a general knowledge of the most important and life-threatening types of cardiovascular disease, as well as the cellular and molecular mechanisms underlying the pathogenesis, and the current scientific approaches to investigate these diseases. The course will also introduce and explore the latest therapeutic approaches in the field of cardiovascular diseases.
3 credits

**BMED 834 Embryology**
This course is designed to introduce students to the formation of the human body. In addition to learning about the normal development, students will learn about numerous types of birth defects.
3 credits

**BMED 845 Oncology**
This course is an introduction to cancer and the biological aspects of tumor growth with emphasis on the development and progression of cancer. Selected methods of cancer diagnosis and therapy are discussed based on reviews of current literature.
3 credits

**BMED 863 Neuroscience**
This course is an introductory survey intended to provide the student with a basic understanding of the nervous system at the cellular level. Topics of focus include basic neuronal function, development of the nervous system, sensory perception, and prevalent cognitive and neurodegenerative diseases. This is an interdisciplinary course that will integrate basic concepts in cellular biology, pharmacology and physiology as well as provide insight to the most recent advances in our understanding of neuropathology.
3 credits

**BMED 865 Pathophysiology**
This course will introduce the student to current literature relating to pathophysiology and how it is presented to clinicians. Students will read recent review articles relating to new findings about selected diseases. From the review articles, several research articles will be selected to read and discuss in depth. The purpose of the course is to expose the student to the latest developments in pathophysiology and how they relate to courses taken in the Biomedical Sciences program.
2 credits

Prerequisites: BMED 574 Pharmacology; PHYS 1571 Human Physiology I; PHYS 1582 Human Physiology II

**BMED 870 Drug Literature Evaluation**
This course introduces, discusses and applies primary, secondary and tertiary references commonly encountered in medical/ pharmaceutical education.
1.5 credits

**BMED 871, 872, 873 Medicinal Chemistry I, II, III**
These courses discuss the chemistry of therapeutic agents – drugs. BMED 871 focuses on functional chemical groups and drug metabolism. BMED 872 and BMED 873 are coupled to the two pharmacology core courses by integrating the importance of chemical structure-activity relationships on a topic by topic basis.
Each course 1.5 credits

**BMED 876 Pharmacognosy**
Pharmacognosy is the discipline in pharmacy involved with the discovery, processing and formulation of drugs from natural sources. This course will cover the major classes of natural drugs including the glycosides, terpenoids, alkaloids, proteins, antibiotics and vaccines. In addition, newer sources of natural drugs such as the dynamic marine pharmacognosy and futuristic pharmacobiotechnology will be introduced.
2 credits

**BMED 878 Drugs of Addiction**
This course provides the student with a detailed understanding of the psychological and pharmacological effects of the common drugs of addiction. The following drugs and drug classes will be reviewed: alcohol, stimulants, nicotine, hallucinogenics, inhalants, sedatives, and opioids. Topics covered include preferred routes of administration, absorption, distribution, mechanisms of action, tolerance and withdrawal. Particular emphasis is placed on abuse potential, addictive behaviors, and societal impact associated with each substance.
2 credits

**BMED 891, 892 Advanced Topics I, II**
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. The 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 individualizes evaluation of the students.
Each course 1-3 credits

**BMED 893 Special Topics**
This independent study-style course is intended to allow students to explore topics of interest not otherwise covered in the curriculum. Students must identify a faculty member to oversee and approve the independent study and meet with faculty to discuss the topic and formulate a plan of study. Students will present their findings at the end of the course. Usually, the course will involve an academic review of pertinent literature and the writing of a review paper.
1-3 credits
PSCI 1306 Dangerous Plants and Animals
This course focuses on the recognition and identification of dangerous plants and animals found primarily, but not exclusively, in Arizona. The student will learn to assess poisonous situations and recommend management scenarios. Lectures and workshops involving case studies and field trips will be utilized.
1.5 credits

FACULTY
Leonard B. Bell, Ph.D.
Medical College of Wisconsin
Director and Professor

Lori M. Buhlman, Ph.D.
University of Arizona
College of Graduate Interdisciplinary Programs
Assistant Professor

Pedro I. Chavez, Ph.D.
University of Texas
Graduate School
Professor

Kimbal E. Cooper, Ph.D.
University of Illinois
College of Liberal Arts and Sciences
Professor

Delrae M. Eckman, Ph.D.
University of Nevada, Reno
School of Medicine
Assistant Professor

Mitra Esfandiarei, Ph.D.
University of British Columbia
Faculty of Medicine
Department of Pathology & Laboratory Medicine
Assistant Professor

Sudhindra Gadagkar, Ph.D.
Dalhousie University
Assistant Professor

Elizabeth E. Hull, Ph.D.
Rockefeller University
Associate Professor

Nate W. Johnson, Ph.D.
Arizona State University
College of Liberal Arts & Sciences
Assistant Professor

Carleton B. Jones, Ph.D.
Washington State University
College of Pharmacy
Associate Professor

Scott D. Soby, Ph.D.
University of California, Davis
College of Agricultural and Environmental Science
Associate Program Director and Associate Professor

Brian P. Wellensiek, Ph.D.
University of Arizona
College of Medicine
Assistant Professor
CARDIOVASCULAR SCIENCE PROGRAM

MISSION
The Midwestern University Cardiovascular Science Program educates students to be compassionate, competent in behavior skills, clinically proficient and professional members of the cardiac surgery team in the practice of cardiovascular perfusion.

ACCREDITATION
The Cardiovascular Science Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Accreditation Committee-Perfusion Education (www.acpe.org). The Commission on Accreditation of Allied Health Education Programs is located at 1361 Park Street, Clearwater, FL 33756, phone number 727/210-2350.

DEGREE DESCRIPTION
Program graduates are provided with the knowledge and skills necessary to meet the demands that will be placed upon them in an ever-changing field where surgical, technological, and basic sciences are rapidly changing.

The 21-month curriculum leading to a Master of Science in Cardiovascular Science degree is a full-time professional program of seven continuous quarters. The program begins with three quarters of didactic and laboratory education at the Glendale, Arizona campus. The student is exposed to clinical medicine during the first three quarters through clinical observation at affiliated hospitals in the Phoenix area.

The summer quarter of the student’s second year begins the four-quarter clinical rotation segment held at various affiliated hospitals located across the country. Relocation during clinical rotations will be necessary. This is a rigorous and demanding program; however, graduates are rewarded with the satisfaction that comes with accomplishment and an excellent start to their professional careers.

ADMISSIONS
The Cardiovascular Science Program currently uses a rolling admissions process. Completed applications are reviewed and decisions are made at regular intervals during the admissions cycle. Matriculation into the Cardiovascular Science Program occurs during the academic year until the class has been filled.

Admission to the Cardiovascular Science Program at Midwestern University is considered on a competitive basis for prospective students who hold a bachelor’s level (or its equivalent) or higher degree from regionally accredited college or university. Applications received are reviewed by the Office of Admissions for completeness and referred to the Director of the Cardiovascular Science Program to determine eligibility for applicant interviews. Final acceptance into the Cardiovascular Science Program is determined by the Admissions Committee with the approval of both the Director of the Cardiovascular Science Program and the Dean. The Dean, via Office of Admissions, notifies applicants in writing of the admission action/decision. Decisions on acceptance are made until the maximum enrollment for each class is reached. Candidates are encouraged to submit a completed application early in the admission cycle.

Admission Requirements
To be considered for admission to the Cardiovascular Science Program, applicants must submit documentation of the following:

1. Completion of a bachelor’s level or higher degree from a regionally accredited college or university.
2. Minimum cumulative grade point average (GPA) of 2.75 and minimum cumulative science GPA of 2.75 on a scale of 4.00.
3. Completion of the Application for Admission.
4. Completion of the minimum number of prerequisite courses at a regionally accredited college or university.
   • All prerequisites must be completed with a grade of C or better
   • Grades of C- are not acceptable for any prerequisite courses
5. Completion of the Program’s interview process (by invitation only).
6. Passage of the Midwestern University criminal background check.
7. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
### Prerequisite Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
<th>Qtr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and Behavioral Sciences (e.g., sociology, psychology, anthropology)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Biology (must include laboratory)</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>General Chemistry (inorganic; must include laboratory)</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Anatomy</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Physiology</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Physics</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Applied Mathematics (college algebra or higher)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>English (emphasizing composition, communication, and language skills)</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>General Education electives (recommended courses include fine arts, humanities, ethics, philosophy, foreign language, business principles, computer information systems, economics, and cultural anthropology.)</td>
<td>25</td>
<td>38</td>
</tr>
</tbody>
</table>

**Total Credit Hours**: 64 94

### International Applicants

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)

- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)

- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

### Application Process

To be considered for admission into the Cardiovascular Science Program, applicants must submit to the Office of Admissions an application packet that includes:

1. A completed Application for Admission form
2. A nonrefundable, nonwaivable application fee of $50
3. Two signed and sealed letters of recommendation
4. Official transcripts from each college or university attended post-high school

Mail the completed application packet within thirty (30) days to:

Office of Admissions
Midwestern University
19555 North 59th Avenue
Glendale, AZ 85308
623/572-3215 or 888/247-9277
Fax 623/572-3229
admissaz@midwestern.edu

**Please Note:** Applicants may track the receipt of their application materials and the status of their files on the University’s website with the instructions for accessing account information that will be sent by the Office of Admissions after receipt of their applications. Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address and/or e-mail address. All requests for application withdrawals must be made in writing via e-mail, fax or letter to the Office of Admissions at the above address.
Technical Standards
The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college.

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch, and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (Program) would need to make that would allow the candidate to complete the curriculum. The College (Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

**GRADUATION REQUIREMENTS**

To qualify for graduation with the master’s degree, students must:

1. Follow an approved course of study leading to the completion of a master’s project acceptable to the Program Student Academic Review Committee;
2. Satisfactorily complete the required 102.5 quarter-credit hours in the overall course of study with a minimum cumulative grade point average of 2.75, have no course or rotation grade below a C, and satisfactorily complete a final general exercise (Program Summative Evaluation) involving a comprehensive knowledge-based and skills-based examination;
3. Receive a favorable recommendation for master’s degree conferral from the Program Student Academic Review Committee and the College of Health Sciences Student Promotion and Graduation Committee and the University Faculty Senate;
4. Settle all financial accounts with the University; and
5. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

**LICENSURE REQUIREMENTS**

Licensure is not required in all states, including Arizona. In those states requiring licensure, a perfusionist must be a certified clinical perfusionist. Certification is achieved by passing the certifying examination administered by the American Board of Cardiovascular Perfusion (ABCP).

For further information regarding the ABCP certifying examination, contact:

The American Board of Cardiovascular Perfusion
2903 Arlington Loop
Hattiesburg, MS 39404
601/268-2221

**CURRICULUM**

**Total Required Credits:** 102.5

**First Professional Year:**

Credit Hours Required: 51.5

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CORE 1560</td>
<td>Interdisciplinary Healthcare</td>
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<tr>
<td>CVSP 551</td>
<td>Anatomy for Cardiovascular Sciences</td>
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<td>CVSP 553</td>
<td>Monitoring and the Cardiovascular Patient</td>
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<td>Applied Physiology &amp; Pathophysiology for Cardiovascular Sciences</td>
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<tr>
<td>CVSP 561</td>
<td>Cardiovascular Perfusion Technology I</td>
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<tr>
<td>CVSP 591</td>
<td>Cardiovascular Perfusion Hands-on Laboratory I</td>
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**Total**

16.5

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<td>CVSP 531</td>
<td>Cardiovascular Sciences Journal Review I</td>
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<tr>
<td>CVSP 534</td>
<td>Cardiovascular Sciences Masters Project I</td>
<td>1</td>
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<tr>
<td>CVSP 556</td>
<td>Applied Physiology &amp; Pathophysiology for Cardiovascular Sciences II</td>
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<tr>
<td>CVSP 558</td>
<td>Applied Pharmacology for CV Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>CVSP 562</td>
<td>Cardiovascular Perfusion Technology II</td>
<td>4</td>
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<tr>
<td>CVSP 571</td>
<td>Clinical Observations &amp; Seminars for Cardiovascular Sciences I</td>
<td>2</td>
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<tr>
<td>CVSP 592</td>
<td>Cardiovascular Perfusion Hands-on Laboratory II</td>
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**Total**

18.5

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<tr>
<td>CVSP 535</td>
<td>Cardiovascular Sciences Masters Project II</td>
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<tr>
<td>CVSP 544</td>
<td>Quality &amp; Risk Management for Cardiovascular Sciences</td>
<td>3</td>
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<tr>
<td>CVSP 557</td>
<td>Cardiac Congenital Defects &amp; Cardiac Pediatric Perfusion</td>
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</tr>
<tr>
<td>CVSP 563</td>
<td>Cardiovascular Perfusion Technology III</td>
<td>4</td>
</tr>
</tbody>
</table>
CVSP 572 Clinical Observations & Seminars for Cardiovascular Sciences II 2
CVSP 593 Cardiovascular Perfusion Hands-on Laboratory III 2
Total 16.5

Second Professional Year:
Credit Hours Required: 51

Summer Quarter
CVSP 601 Clinical Practicum I (6 weeks) 6
CVSP 602 Clinical Practicum II (6 weeks) 6
Total 12

Fall Quarter
CVSP 603 Clinical Practicum III (6 weeks) 6
CVSP 604 Clinical Practicum IV (6 weeks) 6
CVSP 662 Special Techniques in Cardiopulmonary Bypass 1
Total 13

Winter Quarter
CVSP 605 Clinical Practicum V (6 weeks) 6
CVSP 606 Clinical Practicum VI (6 weeks) 6
CVSP 663 Clinical Modules in Perfusion 1
Total 13

Spring Quarter
CVSP 607 Clinical Practicum VII (6 weeks) 6
CVSP 608 Clinical Practicum VIII (6 weeks) 6
CVSP 664 Current Trends in Perfusion 1
Total 13

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

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

CVSP 531 Cardiovascular Sciences Journal Review I
This course covers topics related to cardiovascular perfusion. Students will evaluate journal review articles and present to the class. The course will provide the student with skills to review, critique, present, and lead discussions of journal articles that are relevant to perfusion and cardiothoracic surgery.
2 credits

CVSP 534 Cardiovascular Sciences Masters Project I
This course applies the theory and principles presented in CVSP 591 Cardiovascular Perfusion Hands-on Laboratory I and applies to a research project. Students will conduct a research project from the design phase through presentation of the study and the results.
1 credit
Prerequisites: CVSP 561 Cardiovascular Perfusion Technology I; CVSP 591 Cardiovascular Perfusion Hands-on Laboratory I

CVSP 535 Cardiovascular Sciences Masters Project II
A requirement of the Cardiovascular Science Program is that the students write and submit a manuscript acceptable for publication prior to the student’s graduation. Acceptability will be determined by either acceptance for presentation or publication in a peer-reviewed, professional journal. In this independent study course, the student will select a topic, find major references, produce a text outline, and write an abstract for their manuscript. It is anticipated that the student may present their research information during a regional or national perfusion meeting.
1 credit
Prerequisites: CVSP 534 Cardiovascular Sciences Masters Project I

CVSP 544 Quality & Risk Management for Cardiovascular Sciences
This course covers topics related to quality management and risk management in cardiovascular perfusion. The quality management course will instruct the student in setting-up a quality management program for a perfusion department. The curriculum will incorporate the continuous quality improvement cycle including process improvement. The risk management segment covers topics related to risk management in cardiovascular perfusion. The course will instruct the student in risk management in perfusion technology.
3 credits
CVSP 551 Anatomy for Cardiovascular Sciences
This course examines cardiac, vascular, renal, and respiratory anatomy as they are applied to cardiovascular science and perfusion technology in particular. Emphasis is placed on normal structure and function and the current techniques used to visualize and analyze each of the structures.
2 credits

CVSP 553 Monitoring and the Cardiovascular Patient
This course provides an overview of patient monitoring, especially the critically ill patient. The course also provides introduction to all aspects of the cardiac surgery suite. The course takes an in-depth look at these monitors and analyzers. The student will learn how each device and system operates, the strengths and limitations of each, how to troubleshoot each system, and how to interpret the clinical data.
4 credits

CVSP 555 Applied Physiology & Pathophysiology for Cardiovascular Sciences I
This course is the first in the series of two courses that take an in-depth look at the physiology and pathophysiology of the major organ systems of the human body. Emphasis is on the interaction of cardiopulmonary bypass with the systems' normal physiology and how the systems' pathophysiology affects the conduct of bypass. This course covers blood, the heart, and the vascular system.
4 credits

CVSP 556 Applied Physiology & Pathophysiology for Cardiovascular Sciences II
This course is the second in the series of two courses that take an in-depth look at the physiology and pathophysiology of the major organ systems of the human body. Emphasis is on the interaction of cardiopulmonary bypass with the systems' normal physiology and how the systems' pathophysiology affects the conduct of bypass. This course covers the autonomic nervous system, the immune system and inflammation, the lungs, the kidneys, and fluid and acid-base balance.
4 credits
Prerequisites: CVSP 555 Applied Physiology & Pathophysiology for Cardiovascular Sciences I

CVSP 557 Cardiac Congenital Defects & Cardiac Pediatric Perfusion
This course prepares students for participation in their pediatric rotations by providing an in-depth study of the cardiac congenital defects, the surgical procedures used to palliate and/or correct each defect, and a general overview of pediatric perfusion techniques. Emphasis is also placed on the physiological differences between adult and pediatric patients, device selection, volume management, cannulation techniques, temperature management, deep hypothermic circulatory arrest, and cerebral protection.
4 credits
Prerequisites: CVSP 555, 556 Applied Physiology & Pathophysiology for Cardiovascular Sciences I, II; CVSP 558 Applied Pharmacology for CV Sciences I

CVSP 558 Applied Pharmacology for CV Sciences I
This course will help the student gain familiarity and understanding of cardiac pharmacology. The student will learn the different physiological receptors and the mechanism of action of the pharmaceutical agents, review a patient's record, the reason for each of the pharmaceutical agents the patient is prescribed and how each of the medications interact with the other.
3 credits

CVSP 561 Cardiovascular Perfusion Technology I
This is the first in the series of three courses that explore the technology, techniques, and issues associated with cardiovascular perfusion and how the extracorporeal circuit is used in today's healthcare setting. This course provides an overview of the evolution of cardiopulmonary bypass, an introduction to the operating room and its environment including sterile technique, blood-borne pathogens, personal protection equipment, and an in-depth look at the components that comprise the extracorporeal circuit.
4 credits

CVSP 562 Cardiovascular Perfusion Technology II
This is the second in the series of three courses that explore the technology, techniques, and issues associated with cardiovascular perfusion and how the extracorporeal circuit is used in today's healthcare setting. This course looks at the technology and techniques associated with the conduct of cardiopulmonary bypass. This includes hemodilution, hypothermia, anticoagulation, myocardial protection, the interaction of blood with a foreign surface, and the pathophysiology associated with cardiopulmonary bypass.
4 credits
Prerequisites: CVSP 553 Monitoring and the Cardiovascular Patient; CVSP 561 Cardiovascular Perfusion Technology I; CVSP 591 Cardiovascular Perfusion Hands-on Laboratory I

CVSP 563 Cardiovascular Perfusion Technology III
This is the third in the series of three courses that explore the technology, techniques, and issues associated with cardiovascular perfusion and how the extracorporeal circuit is used in today's healthcare setting. This course looks at specific techniques and current applications of extracorporeal circulation, various adjunct procedures, support of the failing heart and/or the failing lungs, and future applications and techniques.
4 credits
Prerequisites: CVSP 562 Cardiovascular Perfusion Technology II; CVSP 592 Cardiovascular Perfusion Hands-on Laboratory II
CVSP 571, 572 Clinical Observations & Seminars for Cardiovascular Sciences I, II
These courses present procedures and topics in cardiovascular medicine through direct clinical observation, seminar presentations, or by independent study. Students are assigned to observation sessions in the cardiac operating room or catheterization lab at local affiliate hospitals. Students not involved in observation participate in a cardiac conference or independent study. All students participate in weekly seminars which present a technology, technique, or device currently in clinical use.
Each course 2 credits

CVSP 591 Cardiovascular Perfusion Hands-on Laboratory I
This is the first in the series of three laboratory courses that provide hands-on experience with the extracorporeal circuit and related perfusion technologies. This course introduces the heart-lung machines currently available in the Cardiovascular Science's laboratory, provides hands-on experience with the design and assembly of an extracorporeal circuit tubing pack, and provides hands-on experience with setting up and priming a simple extracorporeal circuit.
2 credits

CVSP 592 Cardiovascular Perfusion Hands-on Laboratory II
This is the second in the series of three laboratory courses that provide hands-on experience with the extracorporeal circuit and related perfusion technologies. This course continues the hands-on experience circuit setup and introduces conduct of cardiopulmonary bypass via weekly hands-on simulations. Emphasis is on preparation of patient information, initiation and termination of bypass, anticoagulation management, patient management during cardiopulmonary bypass, and effective communication.
2 credits
Prerequisites: CVSP 561 Cardiovascular Perfusion Technology I; CVSP 591 Cardiovascular Perfusion Hands-on Laboratory I

CVSP 593 Cardiovascular Perfusion Hands-on Laboratory III
This is the third in the series of three laboratory courses that provide hands-on experience with the extracorporeal circuit and related perfusion technologies. This course continues the hands-on experiences involving circuit setup and simulation. Simulation emphasis is on the operation of cell salvage devices, operation of the intra-aortic balloon pump, recognition and correction of problems potentially encountered during cardiopulmonary bypass, troubleshooting, and crisis resource management.
2 credits
Prerequisites: CVSP 562 Cardiovascular Perfusion Technology II; CVSP 592 Cardiovascular Perfusion Hands-on Laboratory II

CVSP 601, 602, 603, 604, 605, 606, 607, 608 Clinical Practicum I-VIII
The curriculum for Year Two features four quarters of clinical rotations including a one-week Orientation and a one-week Summative Evaluation. During these rotations, students are expected to achieve specific competencies in cardiovascular perfusion and related technologies of open-heart surgery, including proficiency in managing patient problems, handling issues of quality assurance, utilization review, continuity of care and appropriate treatment plans. At least one clinical rotation will be pediatrics. Text reading assignments, journal review, and other online activities are required for each clinical rotation.
Each clinical practicum 6 credits
Prerequisites: Completion of all first year courses through Spring quarter first year and successful completion of the Orientation to the Clinical Rotations program

CVSP 662 Special Techniques in Cardiopulmonary Bypass
This on-line course is divided into ten separate conditions requiring special and unusual techniques for cardiopulmonary bypass. The class is highly interactive with discussion on each subject.
1 credit

CVSP 663 Clinical Modules in Perfusion
This course consists of a series of three (3) learning modules designed to: (1) allow the student to review and correct physiological parameters for the patient on cardiopulmonary bypass; (2) introduce/review characteristics of various mechanical circulatory assist devices; (3) appreciate input of multiple disciplines allowing the perfusion student to make a number of choices based on the appropriateness, available capital equipment and disposables. A resource library is also provided to support the learning process.
1 credit

CVSP 664 Current Trends in Perfusion
This on-line course is divided into ten separate discussions. Ten different topics will be discussed on-line, each representing a current trend in perfusion. 1 credit

ELECTIVES

CVSP 600 Independent Study
The independent study style course is designed to provide students the opportunity to explore topics of didactic and/or clinical interest as needed to enhance student’s learning.
1-6 credits
FACULTY
Edward Evans, M.A., CP
University of Phoenix
College of Business Administration
Program Director and Associate Professor

Harry R. Hoerr, Jr., M.S., CCT
National University
College of Education
Associate Professor

Donald Nieter, D.V.M., CCP
University of Michigan
School of Public Health
Assistant Professor

Julie A. Steele-Pruett, M.S., CCP
Midwestern University
College of Health Sciences
Assistant Professor

Christopher Yann, B.S., CCP
The Ohio State University
College of Health Sciences
Instructor
MISSION
The Midwestern University Arizona School of Podiatric Medicine (AZPod) prepares quality students through rigorous education to exceed professional standards and become highly qualified residents and podiatric physicians.

VISION
The vision of AZPod is to demonstrate excellence in podiatric medical education. We strive to cultivate diversity and promote professionalism in an interdisciplinary environment through:

• A dynamic curriculum
• Scholarly activity
• Compassionate patient care
• Contemporary graduate medical education
• Service to community

ACCREDITATION
AZPod has been granted full accreditation by the Accreditation Committee of the Council on Podiatric Medical Education. The Council is recognized by the U.S. Department of Education as the accrediting agency for colleges and schools of podiatric medicine. For further information, please contact the Council on Podiatric Medical Education at 9312 Old Georgetown Road, Bethesda, Maryland 20814-1621; 301/581-9200.

DEGREE DESCRIPTION
AZPod offers a four year course of study leading to the Doctor of Podiatric Medicine degree. Maximum time for completion of the degree is six years. Courses in the clinical sciences are integrated with basic science courses during the first two years of the curriculum. Clinical courses continue through the summer and part of the fall quarter of the third year. All basic science courses and some clinical courses are shared with osteopathic medical students. Students experience part-time clinical training in the second year. Full time clinical training occurs eight months of the third year and all of the fourth year. The overall goal of the School is to prepare the finest possible podiatric physicians for entry into residency training.

ADMISSIONS
AZPod considers for admission those students who possess the academic, professional, and personal qualities necessary for development as exemplary podiatric physicians. The School uses multiple criteria to select the most qualified candidates including cumulative grade point average (GPA), science GPA, Medical College Admissions Test (MCAT) scores, personal experiences and character, ability to communicate, familiarity with the profession, volunteer and community involvement, research experience, and other considerations. The School uses a competitive rolling admissions process and candidates are encouraged to apply early in the year prior to admission. Scores will be accepted only from tests taken less than three years prior to the time of application.

Admission Requirements
To be considered for admission to AZPod, the successful candidate must submit the following documented evidence:

1. Minimum cumulative GPA and science GPA of 2.75 on a 4.00 scale.
2. Ability to successfully complete a rigorous curriculum that requires critical thinking skills, effective oral and written communication skills, and voluminous reading, as well as the capacity for responsible, self-directed learning.
3. Competitive scores on the Medical College Admissions Test (MCAT).
4. Completion of the necessary course prerequisites.
   • Candidates must complete a minimum of 90 semester hours at regionally accredited colleges or universities
   • A bachelor’s degree or higher is preferred
5. Letters of Recommendation are not required but will be accepted.
6. A good understanding of podiatric medicine and a sincere interest in a career in the field.
   • Candidates will not be accepted if they have not visited at least one podiatric practice
7. Demonstration of extracurricular or community activities that indicate a well-rounded background and a service orientation.
8. Medically-related experiences that indicate sufficient exposure for candidates to make informed decisions about medical careers.
9. Personal integrity and sound moral character.
10. Interpersonal and communication skills necessary to relate effectively with others.
11. Passage of the Midwestern University criminal background check.
12. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

**Prerequisite Courses**

<table>
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<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/Inorganic Chemistry with lab</td>
<td>8 Sem/12 Qtr hours</td>
</tr>
<tr>
<td>Organic Chemistry with lab</td>
<td>8 Sem/12 Qtr hours</td>
</tr>
<tr>
<td>Physics</td>
<td>8 Sem/12 Qtr hours</td>
</tr>
<tr>
<td>English</td>
<td>6 Sem/9 Qtr hours</td>
</tr>
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</table>

Grades less than C are not acceptable for any prerequisite courses.

**International Applicants**

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

**Application Process and Deadlines**

Individuals interested in applying for admission to AZPod may complete an on-line application at the American Association of Colleges of Podiatric Medicine Application Service (AACPMAS) website at https://portal.aacpmas.org/ or obtain application information by writing or calling:

The American Association of Colleges of Podiatric Medicine Application Service (AACPMAS)
P.O. Box 9200
Watertown, MA 02471
617/612-2900

To initiate the competitive selection process, applicants must complete their application packets, which must include:

1. A completed Application for Admission form. A nonrefundable application fee will also be due to the AACPM Application Service (AACPMAS).
2. Official transcripts
   Applicants must submit official transcripts from every undergraduate, graduate, or professional school that they have attended or are currently attending. These transcripts must be signed and sealed by the registrar at each institution.
3. Official MCAT score report
   The application deadline for admission to AZPod is June 1st.

*Please note:* Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via email, fax, or letter to:

Midwestern University
Office of Admissions
19555 N. 59th Ave.
Glendale, AZ 85308
Phone: 888/247-9277 or 623/572-3215
Fax: 623/572-3229
admissaz@midwestern.edu

**Interview and Selection Process**

To be considered for interviews, applicants must meet the admissions requirements listed previously. After the Office of Admissions receives these materials, applicant files are reviewed to determine whether applicants merit interviews based on established criteria of the Admissions Committee. The Admissions Director, with the approval of the AZPod Associate Dean and Director, may also place a large number
of students on an interview "wait list" pending possible interview openings toward the end of the interview cycle.

Applicants who accept interviews will be individually interviewed by a three-person interview panel, which is selected from a volunteer group of basic scientists, clinicians and admissions department officials. Team members question students about their academic, personal, and health care preparedness for podiatric medical school and rate applicants on a standardized evaluation form relative to each of these variables. At the conclusion of the interviews, the team members forward their evaluations for each applicant to the Admissions Committee. The Committee may recommend to accept, to deny, or to place applicants on the alternate list. Recommendations are then forwarded to the CHS Dean for final approval. The Dean, via the Office of Admissions, typically notifies applicants of their status within one or two weeks of their interviews.

**Technical Standards**

The Technical Standards set forth the nonacademic abilities considered essential for students to achieve the level of competence required by the faculty to obtain the academic degree awarded by the college. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, and interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (Program) would need to make that would allow the candidate to complete the curriculum. The College (Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

**Matriculation Process**

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

Reapplication Process
After receiving either a denial or end-of-cycle letter, prospective students may reapply for the next enrollment cycle. Before reapplying, however, students should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit new applications and proceed through the standard application process.

Transfer Admission
AZPod may elect to accept transfer students from other U.S. podiatric medical schools as long as these students remain in good academic standing and have an acceptable reason(s) for seeking transfer. Typically, transfers are only granted to students desiring to transfer into the third or fourth year; however, transfers to the second year may be granted.

To be considered for transfer, the student must meet the School’s general requirements for admission. The student must also submit:

1. A letter to the Director of Admissions indicating the reason for requesting to transfer and explaining any difficulties encountered at the previous institution(s).
2. The AZPod Transfer Application (available through the Office of Admissions).
3. Official MCAT score report.
4. Official transcripts from all schools attended, including undergraduate, graduate, and professional.
5. A letter from the dean of the college in which the student is enrolled that describes the current academic status and terms of withdrawal or dismissal of the prospective transfer student.
6. Additional documents or letters of recommendation as determined to be necessary by the Director of Admissions.

Following receipt of these materials, the Admissions Committee determines whether the student merits an on-campus interview. Students who receive interview invitations will meet with an interview team. The interview team offers recommendations to the CHS Dean, who approves both the admissions status and class standing of transfer students.

Transfer applications must be received at least three months prior to the desired matriculation date. This allows time for processing of applications, interviews, and student relocations prior to the start of the next academic term.

GRADUATION REQUIREMENTS
To receive the degree of Doctor of Podiatric Medicine, the student must complete all requirements within six years of matriculation. To be eligible for graduation the student must:

1. Follow an approved course of study of 227 credits leading to the completion of all academic requirements.
2. Satisfactorily complete all academic requirements with a cumulative GPA of at least 2.00.
3. Repeat and pass any required course for which an F grade has been issued.
4. Complete the Service Learning requirement (20 hours of volunteer service in a health care environment during the first and second years of study).
5. Pass Part I and take Part II of the American Podiatric Medical Licensing Examination, administered by the National Board of Podiatric Medical Examiners.*
7. Receive a favorable recommendation from the College of Health Sciences Student Promotion and Graduation Committee.
8. Be recommended for conferral of the Doctor of Podiatric Medicine degree by the University Faculty Senate.
9. Settle all financial accounts with the University.
10. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

* It is an AZPod requirement that both Part I and Part II of the APMLE exams be taken the first time they are offered once the student is eligible to take the exams. Students will not be allowed to start rotations during their third year until
they have taken and passed Part I of the American Podiatric Medical Licensing Examination (APMLE). In addition, students who fail Part I of the APMLE three times may be subject to dismissal. Additionally, the National Board of Podiatric Medical Examiners requires that the student must pass Part I prior to taking Part II, and must also pass Part II prior to taking Part III.

AZPOD Competencies
Graduating students of AZPod will achieve the following competencies:

I. Basic Science
Demonstrate knowledge of the basic sciences which provide the foundations of podiatric clinical training, residency training and practice.

- Demonstrate knowledge of normal human anatomy, physiology, biochemistry, and the structure and function of the human body.
- Demonstrate knowledge of the causes of disease and the consequences of altered structure or function of the human body and its organ systems.
- Demonstrate an understanding of pharmacological principles and interventions.
- Demonstrate knowledge of microbes (bacteria, fungi, viruses, and parasites) and the diseases that they cause.
- Demonstrate knowledge of the structure and function of the immune system.

II. Patient Care
Demonstrate patient care that is compassionate, appropriate, and effective for the promotion of health, prevention, and treatment of lower extremity disease.

- Perform and interpret a history and physical examination as it relates to the pathology of the lower extremity.
- Order and interpret the most frequent clinical, laboratory, imaging, gait, and other diagnostic studies used to detect and diagnose pathologies of the lower extremity.
- Formulate appropriate differential diagnoses and plans of management, which may include patient education, prevention programs and treatment strategies.
- Understand how to perform treatment techniques by medical and surgical means, recognizing the need to refer when necessary.
- Assess treatment plans and revise as necessary.
- Capably assess medical conditions and recognize those that require referral to other professionals within the health care community.

- Perform a complete medical history and physical examination.
- Recognize abnormal medical history and physical findings and formulate a differential diagnosis, especially for conditions with impact and expression in the lower extremities.
- Order and interpret the most frequently used diagnostic studies.
- Develop management plans which may incorporate health promotion and education, diagnostic modalities, and appropriate referrals.

III. Professionalism
Demonstrate a commitment to professional service, adherence to ethical principles and sensitivity to diverse patient populations and awareness of one’s own interests and vulnerabilities.

- Demonstrate knowledge of the ethical boundaries of the doctor-patient relationship.
- Demonstrate knowledge of state laws governing the practice of the profession.
- Demonstrate knowledge of the principles of bioethics including customary and accepted standards of professional practice.
- Demonstrate knowledge of the principles of self-regulation of the profession.
- Practice with honesty in relationships with patients, peers and faculty.
- Recognize the need to deliver care in a caring, compassionate and humane way to meet the needs of patients regardless of their individual circumstances.

IV. Life-Long Learning & Critical Thinking
Demonstrate the ability to appraise and assimilate scientific evidence and methods to investigate, evaluate and improve patient care practices.

- Retrieve (from electronic databases and other resources), interpret, manage, and utilize biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.
- Critically evaluate the information published in professional and scientific literature.
- Demonstrate knowledge of the principles of research methodology.
- Demonstrate knowledge of the principles of evidence based medicine.
- Utilize critical thinking and problem solving skills in patient management.
V. Communication
Demonstrate professional behavior that acknowledges and respects the roles of other healthcare professionals in providing needed services to individual patients, populations, or communities in a multidisciplinary manner and/or in an interdisciplinary setting.

- Effectively communicate and work collaboratively with other health professionals and the community to promote the delivery of quality healthcare services to patients.
- Use effective listening, questioning, nonverbal, and writing skills to communicate with patients, families and professional associates.
- Communicate effectively, both orally and in writing, with patients, patients’ families, colleagues, and others with whom podiatric physicians must exchange information in carrying out their responsibilities.
- Demonstrate appropriate choice and method of referral to other healthcare providers and agencies.

VI. Practice Management
Practice and manage patient care in a variety of diverse communities, healthcare settings, and living arrangements in a manner that acknowledges cultural sensitivities.

- Apply principles of risk management, including informed consent and records maintenance.
- Comply with state and federal regulations including OSHA and HIPAA.
- Comply with protocols for cleanliness/universal precautions.
- Demonstrate knowledge of healthcare insurance products, including fee for service, independent practice associations (IPA), preferred provider organizations (PPO), health maintenance organizations (HMO), capitation, etc.
- Demonstrate knowledge of insurance issues, including professional and general liability, disability, and worker’s compensation.
- Demonstrate knowledge of the regulation of practice, including federal and state regulations, Stark Law, Drug Enforcement Administration (DEA) license requirements, and scope of practice.

Licensure Requirements
Podiatric physicians are licensed in all 50 states and Puerto Rico as well as Canada, Israel, Australia, and many other foreign countries. To obtain licensure, graduates must have completed a residency (in most states) and must meet the requirements established by each state or national licensing board. Licenses require successful passage of all three parts of the National Boards and may require the passage of an additional state licensing exam. Postdoctoral requirements may vary among states. For additional information regarding licensure, contact the Federation of Podiatric Medical Boards (FPMB) or the American Podiatric Medical Association (APMA).

FPMB
12116 Flag Harbor Drive
Germantown, MD 20874-1979
202/810/3762
www.fpmb.org

APMA
9312 Old Georgetown Road
Bethesda, Maryland 20814-1621
301/581-9200
www.apma.org

CURRICULUM
First Professional Year
Total Quarter Credit Hours Required: 58.5

First Professional Year

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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ANAT 1511</td>
<td>Gross Anatomy</td>
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<td>BIOC 1511</td>
<td>Biochemistry I</td>
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<td>Biochemistry II</td>
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<td>CORE 1560</td>
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<td>FMED 1531</td>
<td>Clinical Ethics/Medical Jurisprudence</td>
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<td>HIST 1511</td>
<td>Histology/Embryology</td>
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<td>MICR 1531</td>
<td>Immunology</td>
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<td>NEUR 1531</td>
<td>Neuroscience</td>
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<td>PHYS 1521</td>
<td>Physiology I</td>
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<td>PHYS 1532</td>
<td>Physiology II</td>
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<td>PMED 1512</td>
<td>Podiatric Medicine I</td>
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<tr>
<td>PMED 1521</td>
<td>Biomechanics of Lower Extremity Function I</td>
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<td>PMED 1531</td>
<td>Podiatric Surgery</td>
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Total 58.5

Second Professional Year

Total Quarter Credit Hours Required: 73.5
### Second Professional Year

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<tr>
<td>MICR 1611</td>
<td>Microbiology</td>
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<td>PASS 1569</td>
<td>Physical Diagnosis</td>
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<tr>
<td>PATH 1611</td>
<td>Pathology I</td>
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<td>PHAR 1611</td>
<td>Pharmacology</td>
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<tr>
<td>PMED 1617</td>
<td>Podiatric Basic Skills A, B, C (Rotations)</td>
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<tr>
<td>PATH 1622</td>
<td>Pathology II</td>
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<tr>
<td>PATH 1633</td>
<td>Pathology III</td>
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<td>PMED 1641</td>
<td>Podiatric Medicine II</td>
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<td>PMED 1643</td>
<td>Lower Extremity Anatomy</td>
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<td>PMED 1644</td>
<td>Medical Imaging</td>
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<tr>
<td>PMED 1651</td>
<td>Biomechanics of Lower Extremity Function II</td>
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<tr>
<td>PMED 1662</td>
<td>General Medicine I</td>
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<td>PMED 1663</td>
<td>Podiatric Pathomechanics</td>
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<tr>
<td>PMED 1672</td>
<td>General Medicine II</td>
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<tr>
<td>PMED 1675</td>
<td>Pediatric Orthopedics</td>
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<tr>
<td>PMED 1678</td>
<td>Behavioral Medicine</td>
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### Third Professional Year

ACLS/BLS is a mandatory, non-credit, 2-day session taught in the fall quarter prior to the start of third year rotations.

Total Quarter Credit Hours Required: **55**

#### Summer Quarter

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<td>Advanced Podiatric Surgery</td>
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<td>PMED 1724</td>
<td>Orientation to the Operating Room &amp; Anesthesia</td>
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<tr>
<td>PMED 1732</td>
<td>General Medicine III</td>
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</tr>
<tr>
<td>PMED 1734</td>
<td>Practice Management</td>
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</tr>
<tr>
<td>PMED 1773</td>
<td>Sports Medicine and Rehabilitation</td>
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<tr>
<td>PMED 1774</td>
<td>General Orthopedics and Disorders of Bone</td>
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#### Fall Quarter

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<tr>
<td>PMED 1723</td>
<td>Emergency Medicine and Trauma</td>
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<tr>
<td>PMED 1741</td>
<td>Podiatric Dermatology</td>
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<tr>
<td>PMED 1742</td>
<td>Research, Community Health and Evidence Based Medicine</td>
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</tr>
<tr>
<td>PMED 1751</td>
<td>Applied Clinical Biomechanics</td>
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### Winter/Spring Quarters

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<tr>
<td>PMED 1725</td>
<td>Clinical Correlates in Podiatric Biomechanics</td>
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<tr>
<td>PMED 1726</td>
<td>Clinical Correlates in Podiatric Medicine</td>
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#### Rotations (Integrated October through May)

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<tr>
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<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMED 1701</td>
<td>Podiatric Medicine CORE A, B, C (3 rotations, 4 weeks each, 4 credits each rotation)</td>
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<tr>
<td>PMED 1702</td>
<td>Radiology</td>
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<td>PMED 1706</td>
<td>Outpatient Medicine</td>
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<td>PMED 1710</td>
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<td>PMED 1711</td>
<td>Rheumatology</td>
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<td>PMED 1715</td>
<td>Neurology</td>
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<td>PMED 1705</td>
<td>Podiatric Office</td>
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<td>PMED 1707</td>
<td>Vascular Medicine</td>
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<td>PMED 1708</td>
<td>Pedorthics, Bracing &amp; Prosthetics</td>
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<td>PMED 1713</td>
<td>Wound Care</td>
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<td>PMED 1716</td>
<td>Orthotic Fabrication</td>
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<td>PMED 1733</td>
<td>Clerkship</td>
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<td>PMED 1735</td>
<td>Research</td>
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<td>PMED 1740</td>
<td>International</td>
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### Fourth Professional Year

Each student may take up to four weeks of vacation time.

Total Quarter Credit Hours Required: **40**
Summer/Fall/Winter Quarters

Total

Rotations (Integrated June through May)

PMED 1801 Podiatric Medicine CORE (2 rotations, 4 weeks each, 4 credits each rotation) 8
PMED 1802 Emergency Medicine/Trauma 4
PMED 1803 Surgery 4
PMED 1804 Inpatient Medicine 4
PMED 1805 Clinical Clerkships (5 rotations, 4 weeks each, 4 credits each rotation) 20
PMED 1805A Clinical Clerkship
PMED 1805B Clinical Clerkship
PMED 1805C Clinical Clerkship
PMED 1805D Clinical Clerkship
PMED 1805E Clinical Clerkship
PMED 1808 Optional Rotation (4 weeks) (4)

Total 40

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 not a prerequisite.

ANAT 1511 Gross Anatomy
In this course, students approach the study of the human body in a regional manner with sequential study of the back, upper extremities, body wall, thoraco-abdominal cavity and contents. Included in the dissection of each region are the musculoskeletal, vascular, nervous and lymphatic components, relevant surface anatomy, and imaging of the region. The lectures and laboratories are coordinated with the Histology/Embryology course to provide an overall anatomic view of each region. This course involves lecture and dissection in the laboratory, and student progress is evaluated through written and practical examinations. In the second portion of the Gross Anatomy course, students continue their regional study of the body by examining the pelvis and perineum, lower extremities, and the head and neck. Regional coordination with the Histology/Embryology course continues. This course also involves lecture and dissection in the laboratory and testing by written and practical examinations. This course is taught during the Fall and Winter quarters with a single grade given at the completion of the course. 5 credits Fall Quarter, 5 credits Winter Quarter. 10 credits

BIOC 1511 Biochemistry I
Course modules in Biochemistry I feature protein structure and enzymes emphasizing structure-function relationships; cell biology emphasizing how cells move, grow, and divide; molecular biology emphasizing the role of nucleic acids in storage and expression of genetic information; and intermediary metabolism emphasizing degradation and synthesis of carbohydrates, lipids, and amino acids; and tissues and organs emphasizing the customization and adaptation of biochemical pathways in specialized cells. Clinical aspects as well as regulation and coordination of biologic processes during the fed and fasted states are emphasized. Workshops introduce the biochemical basis of common clinical laboratory tests and/or illustrate clinical applications of biochemical concepts. Offered in Pre-Clinical Block I, fall quarter. 7 credits

BIOC 1522 Biochemistry II
Biochemistry II has modules on human nutrition emphasizing the importance of nutrition in health and preventive medicine; human genetics emphasizing the inheritance of selected genetic disorders; and cell cycle regulation and molecular basis of cancer; and various types of anemia focusing on the biochemical and molecular basis; and hemostasis and its related topics. The workshops introduce the biochemical basis of common clinical laboratory tests and/or they illustrate clinical applications of biochemical concepts. Selected workshops feature a modified problem-based learning environment. Offered in Pre-Clinical Block I, winter quarter. 4 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

FMED 1531 Clinical Ethics/Medical Jurisprudence
This course, in first year, spring quarter, covers complimentary topics and aspects of care that will be
Mandatory format. Examinations include both written and image-based practi-
certion questions. This course is taught during the Fall and Winter quarters with a single grade given at the completion of the course. 5 credits Fall Quarter, 1.5 credits Winter Quarter.

1.5 credits

HIST 1511 Histology/Embryology
In Histology, students study the structure of the cell and the distinguishing morphologic characteristics of the four types of tissues: epithelium, connective tissue, muscle tissue, and nervous tissue. Students will learn how these four basic tissues are combined to form organs. This portion of the course focuses on the normal microscopic features of the lymphatic, circulatory, respiratory, and gastrointestinal systems. In the Embryology component of the course, students learn the general pattern and principles of normal development and the basic aspects of development of the musculoskeletal, circulatory, and gastrointestinal systems. This course uses a lecture-based format. Examinations include both written and image-based practical questions. The second Histology portion of the course continues with the microscopic examination of the urinary, reproductive, and endocrine systems and the eye and ear. The development of the urogenital system, the eyes, the face, and structures derived from the pharyngeal arches are the focus of the Embryology portion of this course. Regional coordination with the Gross Anatomy course also continues. This course uses a lecture-based format. Examinations include both written and image-based practical questions. This course is taught during the Fall and Winter quarters with a single grade given at the completion of the course. 5 credits Fall Quarter, 1.5 credits Winter Quarter.

6.5 credits

MICR 1531 Immunology
This course uses a didactic approach for a comprehensive coverage of immunology. Students are presented with information pertinent to fundamental principles of immunology, the cells and cell products involved in host defense mechanisms, their origin, function, and their roles in health, infectious processes, and in immunologic disorders and deficiencies.

3 credits

MICR 1611 Microbiology
This course covers basic morphologic, cultural, physiologic, and antigenic characteristics of microorganisms with special emphasis on factors pertinent to clinical medicine. Topics include the principles of microbial genetics and chemotherapy; an organ system approach to viral, bacterial, fungal, and parasitic agents of disease, and their biologic characteristics, natural history, public health importance, course of infection, and host interaction. Laboratory exercises and demonstrations help students develop the microbiologic skills applicable for clinical practice, acquaint students with available diagnostic laboratory tests and their interpretation. This course is taught during the Fall and Winter quarters with a single grade given at the completion of the course. 5 credits Fall Quarter, 5 credits Winter Quarter.

10 credits

NEUR 1531 Neuroscience
This course emphasizes the anatomy of the nervous system and clinical correlations related to the various pathways of the nervous system. The first unit studies surface landmarks, internal anatomy, and blood supply of the spinal cord, brainstem, and forebrain. This provides the framework and terminology for the remaining units, which adopt a systems approach to the study of the nervous system. Throughout the course, basic anatomy is presented in the context of neurological disorders that involve the system or pathway being studied.

6.5 credits

PASS 1569 Physical Diagnosis
This course is designed to teach the student the art and technique of physical assessment. Course content includes lectures and reading assignments covering normal and abnormal physical findings. In addition, there are weekly physical exam laboratory sessions designed to provide the student with hands-on practice in exam techniques. At the conclusion of the course the student will be expected to pass a written final exam and satisfactorily perform a complete physical examination.

4 credits

Prerequisites: ANAT 1511, 1522 Gross Anatomy I, II

PATH 1611 Pathology I
This course introduces students to the basic concepts of pathology. It stresses altered cellular, genetic, and molecular mechanisms, and attempts to convey the dynamic nature of the processes involved. By focusing on the organism as a whole system, the discipline of pathology can provide a bridge for transition by showing the interrelationship between basic scientific principles and the practice of clinical medicine. This approach provides a complete, medical overview of the disease process in relation to its histological, functional, and structural changes. Students have an opportunity to develop the skills necessary to interpret and use laboratory data in describing and recognizing various types of injury to cells, tissues, and organs.

6 credits

PATH 1622, 1633 Pathology II, III
A continuation of basic pathology, these courses identify the causes and mechanisms of disease as they relate to specific organ systems as well as stressing the need for the medical student to understand the pathophysiology of disease and its
implications to both the patient and the physician. Emphasis is also placed on the dynamic process of the pathologic progression of changes, adaptive responses, and therapeutic modifications as well as discovering how all these changes produce the ultimate clinical manifestations of disease processes. These courses are taught during the Winter and Spring quarters. 6 credits Winter Quarter, 5 credits Spring Quarter.

11 credits
Prerequisites:
• Prerequisites for PATH 1622 Pathology II, 6 credits: PATH 1611 Pathology I
• Prerequisites for PATH 1633 Pathology III, 5 credits: PATH 1622 Pathology II

PHAR 1611 Pharmacology
This course deals with the general principles of pharmacology, all aspects of absorption, distribution, metabolism, and elimination of drugs, mechanisms of drug actions, drug testing in humans, and prescription writing. In addition, this course describes in great detail the pharmacologic actions and clinical uses of autonomic and cardiovascular drugs, and the principles of toxicology. Topics covered include the chemotherapy of microbial and parasitic diseases, chemotherapy of neoplastic diseases, drugs acting on blood and blood-forming organs, hormones and hormone antagonists, principles of toxicology, vitamins, gastric antacids, digestants, laxatives, antihistamines, and drugs causing birth defects. In addition, these courses include several lectures in clinical pharmacology. Workshops are conducted to demonstrate the application of pharmacologic principles in simulated human cases. In these presentations, emphasis is placed on problem solving, formulating hypotheses, making therapeutic decisions, and evaluating the patient’s response to pharmacotherapy. This course is taught during the Fall, Winter and Spring quarters with a single grade given at the completion of the course. 4 credits Fall Quarter, 4 credits Winter Quarter, 3 credits Spring Quarter. 11 credits

PHYS 1521 Physiology I
This course presents the biophysics, functional properties, and regulation of membrane transport, excitable cells, skeletal muscle, cardiovascular and gastrointestinal systems. A discussion of circulatory fluid dynamics, peripheral vascular tone, blood pressure, and electrical and mechanical activity of the heart is included in the cardiovascular section of the course. Small group case discussions and workshops facilitate development of critical thinking and problem solving skills as students use basic physiologic concepts to understand the pathogenesis of signs and symptoms in specific case studies. 5.5 credits

PHYS 1532 Physiology II
This course is a sequel to PHYS 1521 and builds on physiologic foundations developed during the preceding semester. This course covers the function, mechanism of action, regulation, and integration of the renal and respiratory systems that maintain body homeostasis through fluid, electrolyte and gas balance. The endocrine section of the course presents the function, mechanism of action, and regulation of specific hormones and several special topics will be explored. Small group discussions will refine critical thinking and problem solving skills as students identify physiologic and pathophysiologic mechanisms underlying the signs and symptoms described in pertinent clinical case studies. 5.5 credits

PMED 1512 Podiatric Medicine I
This course introduces students to the podiatric medical profession and the role podiatric physicians play in healthcare delivery. Students will be introduced to basic podiatric and anatomical nomenclature and terminology. They will understand the importance of protecting both themselves and patients from bloodborne pathogens, learn the names and functions of common clinical instruments, and practice their use. Students will become familiar with common podiatric conditions and will be taught to perform a simple medical history and physical examination. 1.5 credits

PMED 1521 Biomechanics of Lower Extremity Function I
This course introduces the principles of podiatric biomechanics including body planes and movement, normal locomotion, the mechanics of normal muscle and joint function, open and closed kinetic chain movement, and the basic biomechanical examination. Computer animation, videotapes, and live demonstrations are used to demonstrate normal gait patterns and the steps of a standard biomechanical examination. Practical labs are held to teach the proper techniques of biomechanical analysis whereby students examine one another. 3 credits

PMED 1531 Podiatric Surgery
This course teaches the fundamental principles of surgery, including normal wound, tendon and bone healing. The perioperative and postoperative management of a surgical patient are discussed along with basic concepts of hemostasis, patient positioning, and management of postoperative complications. Specific minor surgical techniques are discussed and practiced, including instrumentation, injection techniques, incision placement, suturing, knot tying and basic skin flaps. We also practice basic nail surgery and soft tissue mass excision techniques. 3 credits

PMED 1641 Podiatric Medicine II
This course expands on the knowledge, skills, and attitudes developed in Part I. Focus will be placed on the management of the lower extremity manifestations of diabetes, infectious...
disease and peripheral vascular disease. The diagnosis, medical and surgical management of the diabetic foot, including lower extremity ulcerations, neuropathy and Charcot are discussed in detail. Infectious disease and wound care considerations will be presented in both lecture and lab formats, providing hands-on experiences with many of the advanced treatment options available today. Medical and surgical management of the vascular patient will be outlined, including the podiatrist role in diagnosis and management of the PVD patient.

3.5 credits
Prerequisites: ANAT 1511 Gross Anatomy; BIOC 1511, 1522 Biochemistry I, II; PHYS 1521, 1532 Physiology I, II; PMED 1512 Podiatric Medicine I.

PMED 1643 Lower Extremity Anatomy
The purpose of this course is to provide students a firm foundation in the structure of the lower extremity. The course will emphasize a functional and clinical approach to the study of the anatomy of the lower extremity. The anatomical terminology learned will be the vocabulary necessary to understand podiatric surgery, radiology, orthopedics and biomechanics. This knowledge is essential to the podiatrist’s assessment of a patient’s status, and in the interpretation of laboratory and diagnostic tests; and in learning pathology.

6.5 credits
Prerequisites: ANAT 1511 Gross Anatomy

PMED 1644 Medical Imaging
This course will introduce the student to special imaging (MRI, CT scan, bone scan, and diagnostic ultrasonography) and how it pertains to the diagnosis of foot and ankle pathology. Emphasis will be given to the physics and interpretation as well as the appropriate times to order these tests. Students will also learn the proper technique in performing a diagnostic ultrasound.

2 credits
Prerequisites: ANAT 1511 Gross Anatomy

PMED 1651 Biomechanics of Lower Extremity Function II
Biomechanics of Lower Extremity Function II is designed to provide a comprehensive study of biomechanics with an emphasis on normal and abnormal structure and function. General treatment concepts will be considered for a range of conditions with special emphasis on orthosis therapy and footwear correlated to the clinical setting. Short presentations will be followed by hands-on exercises for clinical application.

3.5 credits
Prerequisites: PMED 1521 Biomechanics of Lower Extremity Function I

PMED 1662 General Medicine I
General Medicine I includes an introduction to clinical nutrition and its clinical correlation to the disease states in the cardiovascular and hematology systems. Students study diseases of the cardiovascular, pulmonary and hematology systems through the integration of the basic and clinical sciences. Case-based approaches are used in addition to didactic instruction.

3 credits
Prerequisites: PASS 1569 Physical Diagnosis; PHYS 1521, 1532 Physiology I, II

PMED 1663 Podiatric Pathomechanics
Pathomechanics informs students of the common deformities that occur in the foot that have underlying biomechanical etiologies. Students correlate the abnormal mechanics of the foot with the selection of and techniques utilized for surgical correction. The clinical skills component will demonstrate the components and techniques used in basic internal fixation, the skills and techniques used in the radiographic assessment of a Hallux Abducto Valgus deformity and proper dressing application.

3.5 credits
Prerequisites: ANAT 1511 Gross Anatomy; BIOC 1511, 1522 Biochemistry I, II; PHYS 1521, 1532 Physiology I, II; PMED 1643 Lower Extremity Anatomy; PMED 1644 Medical Imaging

PMED 1672 General Medicine II
General Medicine II includes geriatrics, gastroenterology and nephrology. Students study diseases of the genitourinary and gastrointestinal systems and study issues related to aging through the integration of the basic and clinical sciences. Case-based approaches include a required written history and physical examination and a case presentation is used in addition to didactic instruction.

3 credits
Prerequisites: PASS 1569 Physical Diagnosis; PHYS 1521, 1532 Physiology I, II; PMED 1662 General Medicine I

PMED 1675 Pediatric Orthopedics
Pediatric Orthopedics is designed to provide the podiatric medical student with a comprehensive understanding of the diagnosis and treatment of normal and abnormal pediatric lower extremity conditions and pediatric gait patterns. This course includes lectures on child development, normal pediatric growth, ontogeny, common pediatric foot and ankle deformities, pediatric arthritides, congenital abnormalities, pediatric radiographs, and common pediatric gait problems.

3 credits
Prerequisites: ANAT 1511 Gross Anatomy; PMED 1521 Biomechanics of Lower Extremity Function I

PMED 1678 Behavioral Medicine
This course is designed to introduce the AZPod student to the major psychopathologies they may encounter in daily practice. Emphasis is placed on diagnosis and treatment. Case histories and audio-visual presentations will enhance the student’s understanding of the material presented.

1.5 credits
**PMED 1722 Advanced Podiatric Surgery**
This course expands on the principles discussed in both Pathomechanics and Podiatric Surgery with a focus on rearfoot and reconstructive surgical principles. The emphasis will include the entire treatment course from early detection and diagnosis to conservative and surgical management. The topics of discussion include conditions such as heel pain, flat feet, cavus foot, subtalar and ankle joint arthrosis, arthroscopy of the foot and ankle, total ankle arthroplasty and the use of external fixation. Lectures are augmented with case presentations and critical evaluation of current and past literature.

2 credits
Prerequisites: PMED 1512, 1641 Podiatric Medicine I, II; PMED 1521, 1651 Biomechanics of Lower Extremity Function I, II; PMED 1531 Podiatric Surgery; PMED 1643 Lower Extremity Anatomy; PMED 1644 Medical Imaging; PMED 1663 Podiatric Pathomechanics

**PMED 1723 Emergency Medicine and Trauma**
This course is designed to expose the student to different facets of emergency medicine and trauma. This includes office emergency care, pre-hospital care, and emergency room care. Further, an introduction to the trauma patient with specific emphasis on lower extremity trauma will be discussed. Detailed lectures on classification, non-surgical and surgical management of all foot and ankle fractures will be discussed. The interpretation of imaging for the diagnosis and management of such trauma will be emphasized. The entire course will use a combination of clinical case presentations, lectures, and simulation exercises to help students learn this complicated aspect of podiatric medicine.

3 credits
Prerequisites: PMED 1512 Podiatric Medicine I; PMED 1531 Podiatric Surgery; PMED 1641 Podiatric Medicine II; PMED 1662, 1672, 1732 General Medicine I, II, III; PMED 1722 Advanced Podiatric Surgery

**PMED 1724 Orientation to the Operating Room & Anesthesia**
This course is a hands-on introduction to operating room protocol. In the format of a skills lab conducted in the surgical suite, students will learn basic aseptic technique, the proper methods of gowning and gloving, sterile prep and draping of the patient, the safe handling of sharps, and maintenance of a sterile field. The student will also learn the basics for administering and monitoring of general anesthesia and learn the peri-operative management of surgical patients.

1.5 credits
Prerequisites: PMED 1512 Podiatric Medicine I; PMED 1531 Podiatric Surgery

**PMED 1725, 1726 Clinical Correlates in Podiatric Medicine, Biomechanics and Surgery**
These one credit online courses will serve as a step toward residency interview preparation and clinical case presentations, and will nurture an appreciation for comprehensive understanding of podiatric medicine, biomechanics, and surgery. Clinical Correlates uses small group discussion/interaction and student presentations to meet the course objectives. The courses will review selected topics previously reviewed in the AZPod curriculum as they pertain to advanced clinical knowledge and skills. These courses are taught during the Winter and Spring quarters.

Each course 1 credit

**PMED 1732 General Medicine III**
General Medicine III includes endocrinology and neurology. Students study endocrine and nervous system diseases through the integration of the basic and clinical sciences. Case-based approaches are used in addition to didactic instruction.

3 credits
Prerequisites: NEUR 1531 Neuroscience; PASS 1569 Physical Diagnosis; PHYS 1521, 1532 Physiology I, II; PMED 1662, 1672 General Medicine I, II

**PMED 1734 Practice Management**
Students will have the opportunity to build upon their experiences and mentorship by learning the "how and why" of podiatric practice management and the relationship with quality patient care and a gratifying professional and personal life. The course will follow the development of an overall business plan and will be largely driven by the preparation of products that the student can use later when building a practice.

2 credits

**PMED 1741 Podiatric Dermatology**
Students learn to recognize, diagnose, and manage cutaneous disorders that commonly manifest in the lower extremities. Case-based instruction is employed.

2.5 credits
Prerequisites: MICR 1611 Microbiology; PMED 1512, 1641 Podiatric Medicine I, II

**PMED 1742 Research, Community Health and Evidence Based Medicine**
This course explores the relationships between research, community health, and evidence based healthcare. The subjects covered include: research methodology, bioethical issues related to human subject research, the role of the Institutional Review Board, research protocol writing, public health system, disease prevention and control, clinical epidemiology and biostatistics. Current and clinically relevant articles will be used for problem-based analysis.

2 credits
Prerequisites: F MED 1531 Clinical Ethics/Medical Jurisprudence

**PMED 1751 Applied Clinical Biomechanics**
This course will serve as a final step toward clinical practice and will nurture an appreciation for comprehensive understanding of lower extremity biomechanics. The course
will cover currently accepted concepts as well as introduce new theories under investigation in the field of podiatric biomechanics. This course will illustrate the power and dynamic nature of biomechanics within clinical podiatric practice.

2 credits
Prerequisites: PMED 1521, 1651 Biomechanics of Lower Extremity Function I; II; PMED 1643 Lower Extremity Anatomy; PMED 1663 Podiatric Pathomechanics

PMED 1773 Sports Medicine and Rehabilitation
This course introduces the student to the evaluation, diagnosis and management of athletic injuries. This course will also present various physical therapy evaluative techniques and modalities used in the rehabilitation of athletic injuries. The clinical skills component will include exam techniques for specific athletic injuries, application and use of immobilizing devices, physical therapy modalities, and assessment of running shoes and proper bike fit.

2.5 credits
Prerequisites: PMED 1512, 1641 Podiatric Medicine I, II; PMED 1521, 1651 Biomechanics of Lower Extremity Function I, II; PMED 1643 Lower Extremity Anatomy; PMED 1644 Medical Imaging

PMED 1774 General Orthopedics and Disorders of Bone
This course is designed to introduce the student to many of the conditions that afflict the bone. Topics will include osseous tumors and an extensive review of the rheumatologic conditions that can manifest in the lower extremity. In preparation for orthopedic and trauma rotations, conditions that affect the spine, hip, knee and upper extremity are also reviewed. The clinical skills component is designed to demonstrate to the student the classic radiographic findings seen with the more commonly encountered bone tumors.

2.5 credits
Prerequisites: PMED 1512, 1641 Podiatric Medicine I, II; PMED 1521, 1651 Biomechanics of Lower Extremity Function I, II; PMED 1643 Lower Extremity Anatomy; PMED 1644 Medical Imaging

**ELECTIVE COURSES**
Podiatric medical students may take one elective course each quarter in addition to the regular course load with the permission of the AZPod Associate Dean and Director, beginning with the winter quarter of the first year. Students must request permission to take courses offered by other departments such as Advanced Anatomy or Medical Spanish.

**Rotation Descriptions**

**PMED 1617 Podiatric Basic Skills A, B, C (Rotations)**
These Podiatric Basic Skills rotations are clinical training experiences that span three quarters during the second year. Their purpose is to help each student to develop fundamental clinical skills in preparation for full time clinical rotations during the third year. Training experiences include refresher skills labs and hands on patient care at a variety of different clinical settings. PMED 1617A: 1 credit; PMED 1617B: 0.5 credit; PMED 1617C: 0.5 credit.

2 credits

**PMED 1701 Podiatric Medicine CORE A, B, C**
The Podiatric Medicine CORE rotation consists of a one month training experience at each of three different locations (A, B, C) during the third year. The overall goal of the rotation is to develop skills in documentation, history taking, interpretation of diagnostic tests and physical examination techniques. Students will be exposed to a wide variety of patients of all ages and differing pathologies.
Each rotation 4 credits

**PMED 1702 Radiology**
The Radiology experience is a two week workshop presented by radiologists, orthopedists and sub-specialists in internal medicine. Learning methodologies include extensive laboratory practice in the interpretation of images plus student presentations. The goal of this experience is to familiarize the student with clinical correlations of imaging abnormalities and indications for appropriate consultations. In addition, students will develop a broader understanding of various imaging modalities including plain radiograph, MRI, CT scans, bone scans, ultrasound and densitometry.

2 credits

**PMED 1706 Outpatient Medicine**
The Outpatient Medicine rotation is a four week training experience at an outpatient primary care clinic. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with common, general medical conditions, including history taking, physical examination, ordering and interpreting of labs, and the use of imaging. It is expected that the student will enhance his/her ability to formulate a differential diagnosis and treatment plan appropriate to the medical pathologies encountered.

4 credits

**PMED 1710 Dermatology**
The Dermatology rotation is a four week training experience at an outpatient dermatology clinic. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with common dermatologic conditions. In addition, students will learn diagnostic and treatment modalities related to the treatment of various dermatologic conditions.

4 credits

**PMED 1711 Rheumatology**
The Rheumatology rotation is a four week training experience at an outpatient rheumatology clinic. The overall goal of the experience is to assist the student to develop fundamental
skills in evaluating and managing patients with common and general rheumatologic complaints.
4 credits

PMED 1714 Endocrinology
The Endocrinology rotation is a four week training experience in an outpatient endocrinology clinic. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with endocrinologic disorders including diabetes, osteoporosis, thyroid disorders, and disorders of the pituitary and adrenal glands. Under the supervision of endocrinologists, students will augment their ability to examine the endocrine patient, order and interpret tests, and participate in the treatment of the endocrine patient.
4 credits

PMED 1715 Neurology
The Neurology rotation is a four week training experience in an outpatient neurology clinic. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with neurologic disorders. Working closely with a neurologist, students will learn to complete a thorough neurologic history and physical examination, develop a differential diagnosis, and participate in the treatment of patients with neurologic disorders.
4 credits

PMED 1725, 1726 Clinical Correlates in Podiatric Medicine, Biomechanics and Surgery
These one credit online courses will serve as a step toward residency interview preparation and clinical case presentations, and will nurture an appreciation for comprehensive understanding of podiatric medicine, biomechanics, and surgery. Clinical Correlates uses small group discussion/interaction and student presentations to meet the course objectives. The courses will review selected topics previously reviewed in the AZPod curriculum as they pertain to advanced clinical knowledge and skills. These courses are taught during the Winter and Spring quarters.
Each course 1 credit

PMED 1801 Podiatric Medicine CORE A, B
The Podiatric Medicine CORE rotations consist of two 1-month training experiences in podiatric medicine, biomechanics and surgery. In collaboration with the Office of Clinical Education, students play a role in selecting the location of this rotation. The training experiences take place at established podiatric student training programs nationwide. The overall goal of the rotation is to enhance skills of diagnosis and management of podiatric patients. In addition, students will improve skills in documentation, history taking, interpretation of diagnostic tests and physical examination techniques.
Each rotation 4 credits

PMED 1802 Emergency Medicine/Trauma
The Emergency Medicine/Trauma rotation is a four week training experience in an emergency room or on a trauma service. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with emergent podiatric and non-podiatric pathologies. Students will utilize both diagnostic and treatment modalities for various emergent and traumatic conditions that are present in the emergency room setting.
4 credits

PMED 1803 Surgery
The Surgery rotation is a four week training experience on a surgical service, i.e., orthopedics, vascular, general or plastics. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with non-podiatric pathologies that warrant surgical intervention. Students will utilize diagnostic and treatment modalities throughout the peri-operative period.
4 credits

PMED 1804 Inpatient Medicine
The Inpatient Medicine rotation is a four week training experience on an inpatient service. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with general medical pathologies that require inpatient management. Participating with other medical students and residents on the house staff, students will assist in the management of various serious medical conditions.
4 credits

PMED 1805 A, B, C, D, E Clinical Clerkships
The rotation consists of five 4-week training experiences at affiliated training programs involving both an ambulatory and a hospital based component. The overall goal of the experience is for the student to improve the skills of evaluation and management of patients with podiatric medical, biomechanical, and surgical disorders. In addition, students will enhance skills in documentation, history taking, interpretation of diagnostic tests and physical examination techniques.
Each rotation 4 credits

Elective Rotations

PMED 1705 Podiatric Office
This Podiatric Office rotation is a four week training experience at the office of an affiliated preceptor during the third year. The overall goal of the experience is for the student to further develop the ability to perform a thorough podiatric history and physical, order and interpret common lab tests, and formulate a reasonable differential diagnosis and treatment plan for common podiatric pathologies. In addition, students will develop an enhanced understanding of
practice management and professionalism through observation in a private practice setting.
4 credits

**PMED 1707 Vascular Medicine**
The Vascular Medicine rotation is a two week training experience with an interventional cardiologist. The overall goal of the experience is for the student to develop fundamental skills in evaluating vascular disease and to understand the interventional techniques employed to improve blood flow. Students will gain experience in non-invasive vascular evaluation and observe interventional approaches to the assessment and the augmentation of peripheral blood flow.
2 credits

**PMED 1708 Pedorthics, Bracing & Prosthetics**
The Pedorthics, Bracing and Prosthetics rotation is a two week training experience at an outpatient orthotics and prosthetics clinic. The overall goal of the experience is for the student to develop fundamental skills in evaluating and managing patients with common orthotic and prosthetic needs. In addition, students will participate in the assessment and fitting of the patient for the appropriate medical devices needed to improve function.
2 credits

**PMED 1712 Physical Therapy**
The goal of the Physical Therapy rotation is to expose the podiatric student to the rehabilitation of lower extremity injuries and disease, including evaluation and therapeutic management with an emphasis on regaining appropriate lower extremity function.
2 credits

**PMED 1713 Wound Care**
The Wound Care rotation is a four week training experience. The overall goal is for the student to develop fundamental skills in the evaluation and management of patients presenting with ulcerations. Students will have an opportunity to treat wounds in a variety of somatic locations resulting from various etiologies including diabetes, pressure, arterial disease, and venous disease. Students will enhance their ability to distinguish among various types of ulcers, select and apply wound dressings and topical agents, and employ various techniques of debridement.
4 credits

**PMED 1716 Orthotic Fabrication**
The Orthotic Fabrication rotation is a two week training experience at a prescription foot orthotic laboratory. The overall goal of the experience is for the student to develop fundamental skills with orthosis design, construction and materials. In addition, students will gain an in-depth insight into the indications, construction and use of all types of foot orthoses.
2 credits

**PMED 1733 Clerkship**
The rotation consists of a 4-week training experience. The overall goal of the experience is for the student to improve the skills of evaluation and management of patients with podiatric medical, biomechanical, and surgical disorders. In addition, students will enhance skills in documentation, history taking, interpretation of diagnostic tests and physical examination techniques.
4 credits

**PMED 1735 Research**
This rotation is a four week experience designed to foster the student’s knowledge in clinical research. Students may choose between three separate clinical research experiences.
4 credits

**PMED 1740 International**
The International rotation is a two week training experience that may include both inpatient and outpatient settings and often takes place as a medical mission to underdeveloped nations. The overall goal of the experience is for the student to expand his or her awareness of public health needs and improve cultural competence while learning to provide medical care without all of the technological capacities typically available in the United States. Requires the approval of the University President, CHS Dean, and AZPod Associate Dean and Director.
2 credits

**PMED 1808 Optional Rotation**
Students are provided one month off during the fourth year to visit residency programs or take vacation. Students are given the option of scheduling an additional month of clerkship during this time. In selected cases, when remediation becomes necessary, this time may be used to complete the remediation process.
4 credits
SCHOLARSHIPS AND AWARDS

Scholarships
American Association of Women Podiatrists Founders Scholarship
American College of Foot and Ankle Surgeon’s Division IV Student Travel Scholarship
American College of Foot and Ankle Surgeon’s Division VIII New England States Scholarship
APMA Educational Foundation Scholarship
Association of Schools of Allied Health Professionals Scholarship
Basil M. Tucker Scholarship
Hispanic Scholarship Foundation Scholarship
Indian Health Service Health Professions Scholarship
Johnson & Johnson Wound Management Scholarship
Meyer Friedlander and Milton Klasky Tikkun Olam Scholarship
Podiatry Insurance Company of America Scholarship
Washington State Podiatric Medical Association Ed Erickson Scholarship
Western Interstate Commission for Higher Education (WICHE) Scholarship
Zelda Walling Vicha Memorial Scholarship

Awards
Michael L. Stone, DPM Outstanding Professional Conduct Award
Paul H. Rasmussen Memorial Award for Excellence in Biomechanics
Samuel Mason, DPM Pioneering Service Award
Timothy Holbrook, DPM Memorial Award of Excellence
Jeffrey C. Page, DPM Distinguished Student Award
Kathleen M. Stone, DPM Leadership Award
Ken Suarez, Ph.D. Award of Research Excellence

FACULTY

Donald R. Curtis, D.P.M.
William M. Scholl College of Podiatric Medicine
Assistant Professor

Denise B. Freeman, D.P.M., M.S.E.
Pennsylvania College of Podiatric Medicine
Associate Director and Professor

Kelley Gillroy, D.P.M.
College of Podiatric Medicine & Surgery, Des Moines
Assistant Professor

David W. Jenkins, D.P.M.
California College of Podiatric Medicine
Professor

Kent Myers, M.D.
University of Utah College of Medicine
Associate Professor

Jeffrey C. Page, D.P.M.
California College of Podiatric Medicine
Associate Dean and Director/Professor

Tanya L. Thoms, D.P.M.
California College of Podiatric Medicine
Assistant Professor

Melanie Violand, D.P.M.
New York College of Podiatric Medicine
Director of Podiatric Postgraduate Education/Assistant Professor

Lance Wissman, D.P.M.
William M. Scholl College of Podiatric Medicine
Associate Professor
MISSION
The Midwestern University Nurse Anesthesia Program educates nurses through academic and clinical experience resulting in safe, professional, and competent nurse anesthetists who meet the anesthesia healthcare needs of society.

ACCREDITATION
The Nurse Anesthesia Program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA), 222 South Prospect Avenue, Park Ridge, IL 60068-4001, 847/655-1160. Accreditation was granted for the period of October 12, 2011 through October 31, 2021.

DEGREE DESCRIPTION
The Nurse Anesthesia Program is 27 months divided into a didactic phase (4 quarters) and a clinical phase (5 quarters). The initial portion of the didactic phase of the program provides the student with a strong foundation in the basic sciences. Students are then introduced to a series of courses that address all aspects of anesthesia equipment and anesthesia management.

The clinical phase of the program begins in the summer of the second year of the program. This phase of the program provides students with the necessary hands-on experience to develop the knowledge, skills, and attitudes essential to the practice of nurse anesthesia in a variety of practice settings. All students may rotate to clinical sites in Arizona, California, Florida, New Mexico, Texas, Montana, Ohio, and Washington State. These sites provide students with a broad scope of experiences in rural, urban, and suburban hospitals, as well as specialty rotations in cardiac surgery, pediatrics, obstetrics and neurosurgery. Thus, a student may be assigned to rotations in any combination of these states as needed to ensure the best quality set of clinical rotations. For a list of the Program’s clinical sites see Clinical Practicum I - V under Course Descriptions. The Program adds new clinical sites on an ongoing basis. For an updated list of clinical sites please contact the Program at 623/572-3760. It will be necessary for students to make arrangements for transportation to and lodging at these clinical sites. The University does not provide for the cost of transportation or lodging.

Students that satisfactorily complete the Nurse Anesthesia Program will receive a Master of Science degree with a concentration in Nurse Anesthesia.

ADMISSIONS
Admission to the Nurse Anesthesia Program is considered on a competitive basis for prospective students who are registered nurses and hold a baccalaureate degree in nursing. Applications are reviewed by the Office of Admissions for completeness and referred to the Director of the Nurse Anesthesia Program or the Admissions Committee Chair of the Nurse Anesthesia Program to determine applicant eligibility for an interview. Acceptance into the Nurse Anesthesia Program is determined by the Admissions Committee. The Nurse Anesthesia Admissions Committee meets after the interviews. The Committee reviews the full application file for applicants who were interviewed. The Office of Admissions notifies each applicant in writing of the admission action decision. Decisions on acceptance are made until the maximum enrollment for the Program is reached.

The Nurse Anesthesia Program at Midwestern University uses a rolling admissions process. Completed applications are reviewed and decisions to interview individual candidates are made at regular intervals during the admission cycle. Interviews are conducted and the selection process of each candidate for admission is made until the class is filled. Applicants are notified of their selection status within two weeks after their interview date.

Admission Requirements
To be considered for admission to the Nurse Anesthesia Program at Midwestern University, students must submit the following documented evidence:

1. Minimum cumulative grade point average (GPA) of 3.00 on a 4.00 scale.
2. Minimum science GPA of 3.00 on a 4.00 scale.
   • Courses included in the calculation of the science GPA include anatomy, physiology, pharmacology, chemistry, physics, and microbiology courses.
3. Completion of a baccalaureate degree in nursing, granted by a regionally accredited U.S. college or university.
4. Satisfactory completion with a C or better of all prerequisite coursework prior to the application (grades of C- are not acceptable).
5. Licensure to practice as a registered nurse: an unrestricted license to practice in at least one legal jurisdiction in the United States or its territories. The applicant possesses no previous sanctions or restrictions on the RN license.
6. Minimum of two years of critical care registered nursing experience prior to application. Critical care experience includes all types of Adult ICU (Intensive Care Unit), Pediatric ICU, Emergency Room, and PACU (Post-Anesthesia Care Unit). Neonatal intensive care unit experience does not meet this requirement. Experience should include management of mechanical ventilation, invasive monitoring, and vasoactive medication infusions.
7. Demonstration of sincere understanding of and interest in nurse anesthesia.
8. Oral and written communication skills necessary to interact with faculty, patients, and colleagues.

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem. Hrs.</th>
<th>Qtr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy &amp; Physiology</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>General Chemistry (1 course)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Organic Chemistry (1 course)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><em>Biochemistry is not required but strongly recommended</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)

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

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

Application Process and Deadlines
To be considered for admission into the Nurse Anesthesia Program, applicants must submit to the Office of Admissions application packets that include:

1. A completed Application for Admission form.
2. A nonrefundable, nonwaivable application fee of $50.
3. Official transcripts verifying completion of baccalaureate or higher level degrees in Nursing from regionally accredited programs and satisfactory completion of all prerequisite coursework.
4. Official final transcripts from all colleges attended post-high school.

Mail completed application packets to:
Midwestern University
Office of Admissions
19555 North 59th Avenue
Glendale, AZ 85308
888/247-9277 or 623/572-3215
admissaz@midwestern.edu

Please Note: The receipt of the application materials and the status of the file can be tracked on the University’s website. Upon receipt of the application the Office of Admissions will send instructions for accessing account information. Applicants are responsible for notifying the Office of Admissions at the above address of any changes in mailing address and/or e-mail address.

All requests for withdrawal of an application must be done in writing via e-mail, fax or letter submitted to the Office of Admissions.
Technical Standards

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (Program) would need to make that would allow the candidate to complete the curriculum. The College (Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

Transfer Students

The Nurse Anesthesia Program may elect to accept transfer students. Transfer students must apply to the program and if qualified, must participate in an admission interview. In addition, a letter from a student’s former program director must accompany the application.

Transfer students are not accepted during the clinical phase of the program.

Matriculation Process

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.

2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.

3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.

4. Meet the Technical Standards for the college.

5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

**GRADUATION REQUIREMENTS**

To qualify for graduation with a Master of Science from the Nurse Anesthesia Program of Midwestern University, students must:

1. Follow an approved course of study acceptable to the Program Student Academic Review Committee.
2. Satisfactorily complete the required number of 134 credit hours, pass all courses with a cumulative GPA of 2.75 or higher, and achieve a "B" or higher in all NAAP courses.
3. Receive a favorable recommendation from the Nurse Anesthesia Program, Program Student Academic Review Committee, and the College of Health Sciences Student Promotion and Graduation Committee.
4. Be recommended for conferral of the master’s degree by the University Faculty Senate.
5. Settle all financial accounts with the University.
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.

**LICENSURE AND CERTIFICATION REQUIREMENTS**

Students must have a current unrestricted Arizona registered nursing license or a current unrestricted license from one of the states in the nursing compact at the time they enter the program. Students from a non-compact state will have to obtain licensure in Arizona. During the didactic year, students will apply for and secure licenses for all states required for rotations including non-compact states. Additional state nursing licenses costs are the responsibility of the student. ACLS and PALS certification are required. Costs for ACLS and PALS are the responsibility of the student.

**CURRICULUM**

<table>
<thead>
<tr>
<th>Total Credits for Program Completion:</th>
<th>134</th>
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<tbody>
<tr>
<td><strong>First Professional Year:</strong></td>
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<tr>
<td>Total Quarter Credit Hours Required:</td>
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<tr>
<td><strong>Summer Quarter</strong></td>
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<tr>
<td>ANAT 1551 Human Anatomy and Embryology (with Gross Anatomy Lab)</td>
<td>7</td>
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<tr>
<td>BIOC 550 Biochemistry for Nurse Anesthetists</td>
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<tr>
<td>NAAP 570 Professional Aspects of Nurse Anesthesia I</td>
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<tr>
<td>NAAP 580 Evidence-Based Journal Club</td>
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<td><strong>Total</strong></td>
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<tr>
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<tr>
<td>CORE 1560 Interdisciplinary Healthcare</td>
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<tr>
<td>NAAP 540 Principles and Pathophysiology of Anesthesia I</td>
<td>6</td>
</tr>
<tr>
<td>NAAP 540L Principles and Pathophysiology of Anesthesia Laboratory I</td>
<td>2</td>
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<tr>
<td>NAAP 551 Anesthesia Pharmacology I</td>
<td>4</td>
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<tr>
<td>NAAP 569 Advanced Physical Assessment Across the Lifespan</td>
<td>4</td>
</tr>
<tr>
<td>NAAP 581 Evidence-Based Journal Club</td>
<td>0.5</td>
</tr>
<tr>
<td>PHYS 1571 Human Physiology I</td>
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<tr>
<td><strong>Total</strong></td>
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<tr>
<td><strong>Winter Quarter</strong></td>
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<tr>
<td>CORE 1570 Interdisciplinary Healthcare</td>
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<tr>
<td>NAAP 541 Principles and Pathophysiology of Anesthesia II</td>
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<tr>
<td>NAAP 541L Principles and Pathophysiology of Anesthesia Laboratory II</td>
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<tr>
<td>NAAP 552 Anesthesia Pharmacology II</td>
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<tr>
<td>NAAP 582 Evidence-Based Journal Club</td>
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<td>PHYS 1582 Human Physiology II</td>
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<td><strong>Total</strong></td>
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<td><strong>Spring Quarter</strong></td>
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<tr>
<td>CORE 1580 Interdisciplinary Healthcare</td>
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</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 1551 Human Anatomy and Embryology (with Gross Anatomy Lab)
This course presents lectures and laboratory (human cadaver dissection and prosection, microscopy) sessions emphasizing the embryologic development of the human body, the relationship between body structure and function, and the use of gross human anatomy in physical diagnosis.
7 credits

BIOC 550 Biochemistry for Nurse Anesthetists
Biochemistry is concerned with the functioning of cellular constituents at the molecular level in health and how their functions are altered in disease. Biochemistry is fundamental to understanding all branches of the life sciences. Topics include cellular energy metabolism, signal transduction, cell biology, complete blood count, anemias, diabetes, and hemostasis tests.
3 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

NAAP 540, 541, 542 Principles and Pathophysiology of Anesthesia I, II, III
These courses introduce the student to the scope and complexity of anesthesia management. Principles and Pathophysiology of Anesthesia I focuses on general principles, related to anesthesia equipment, monitoring, perioperative patient assessment, basic anesthesia care, documentation of care, airway management, regional anesthesia, and methods for pain management. The second course introduces the management of patients with coexisting disease that complicate anesthesia management, and the anesthetic management of specific types of procedures. The final course in this series focuses on more complex anesthesia management scenarios including the specialty practice of cardiac, neurologic, obstetric, and pediatric anesthesia. Each course 6 credits
Prerequisites:
- Prerequisites for NAAP 541 Principles and Pathophysiology of Anesthesia II: NAAP 540 Principles and Pathophysiology of Anesthesia I
- Prerequisites for NAAP 542 Principles and Pathophysiology of Anesthesia III: NAAP 541 Principles and Pathophysiology of Anesthesia II

NAAP 540L, 541L, 542L Principles and Pathophysiology of Anesthesia Laboratory I, II, III
These laboratory courses accompany the Principles and Pathophysiology of Anesthesia lecture series. The content focuses on the application of skills and knowledge needed to conduct the administration of general, regional and MAC anesthesia. Application of the theoretical principles to individual patient scenarios is emphasized.
Each course 2 credits

NAAP 551, 552, 553 Anesthesia Pharmacology I, II, III
These courses focus on drugs and delivery systems used for anesthesia. The major emphasis is on inhalational agents, local anesthetics, muscle relaxants and reversal agents, narcotics and induction agents. General principles of drug action, drug dynamics and kinetics, toxicities and therapeutic uses are included for all drug groups. Students are exposed to drugs affecting major organs of the body. Applications using real anesthesia scenarios are included to translate pharmacology theory to anesthesia practice. Drug calculations, conversion, preparing and administering medications, IV fluid management, documentation, and anesthetic planning are included.
Each course 4 credits
Prerequisites:
- Prerequisite for NAAP 552 Anesthesia Pharmacology II: NAAP 551 Anesthesia Pharmacology I
- Prerequisite for NAAP 553 Anesthesia Pharmacology III: NAAP 552 Anesthesia Pharmacology II

NAAP 560 Research Methods
This course provides an overview of research designs used in basic science, applied, and descriptive research. The course is intended to teach research skills used in all of the health professions and to aid in the interpretation of published research reports.
3 credits

NAAP 569 Advanced Physical Assessment Across the Lifespan
This course is designed to teach the student the art and technique of physical assessment. Course content includes lectures and reading assignments covering normal and abnormal physical findings. In addition, there are weekly physical exam laboratory sessions designed to provide the student with hands-on practice in exam techniques. At the conclusion of the course the student will be expected to pass a written final exam and satisfactorily perform a complete physical examination.
4 credits

NAAP 570 Professional Aspects of Nurse Anesthesia I
This course will present material concerning professional issues surrounding the practice of Nurse Anesthesia.
2 credits

NAAP 571 Professional Aspects of Nurse Anesthesia II
This course will present material concerning professional issues surrounding the practice of Nurse Anesthesia.
2.5 credits

NAAP 580, 581, 582, 583 Evidence-Based Journal Club
The purpose of this four-quarter series is to foster the student's critical analysis of research related to clinical anesthesia practice. Using current anesthesia literature students will read, critique and present literature on a specified topic. Lecture and classroom discussion aimed at promoting the usefulness of research will enhance student awareness regarding transferring research and theory to clinical practice.
Each course 0.5 credits

NAAP 615, 616, 617, 618, 719 Clinical Rotation I, II, III, IV, V
Students will begin the clinical practicum in the summer of their second year in the program. Students will rotate to a variety of hospitals in Arizona, California, Florida, New Mexico, Texas, Montana, Ohio, and Washington State. These rotations will include specialty rotations in cardiac surgery, neurosurgery, pediatrics, and obstetrics.
Each rotation 11 credits
Prerequisites: Completion of all didactic course work through spring quarter of first year; successful completion of previous Clinical Rotation.
Current Clinical Sites Include:
1. Arizona Heart Hospital, Phoenix, AZ, Distance from campus: 27 minutes
2. Banner Boswell Medical Center, Sun City, AZ, Distance from campus: 15 minutes
3. Banner Del E. Webb Medical Center, Sun City West, AZ, Distance from campus: 23 minutes
4. Banner Gateway Medical Center, Gilbert, AZ, Distance from campus: 48 minutes
5. Carl T. Hayden Vet Affairs Center, Phoenix, AZ, Distance from campus: 26 minutes
6. Children's Hospital Medical Center of Akron, Akron, OH, Distance from campus: 30 hours
7. Colusa Memorial Hospital, Colusa, CA, Distance from campus: 12 hours
8. Community Hospital of Anaconda, Anaconda, MT, Distance from campus: 16 hours
9. Corpus Christi Medical Center, Corpus Christi, TX, Distance from campus: 16 hours
10. Covenant Hospital, Plainview, TX, Distance from campus: 11 hours
11. Doctor’s Hospital at Renaissance, Edinburg, TX, Distance from campus: 18 hours
12. Flagstaff Medical Center, Flagstaff, AZ, Distance from campus: 2 hours
13. Glenn Medical Center, Willows, CA, Distance from campus: 13 hours
14. Holy Cross Hospital, Tucson, AZ, Distance from campus: 2 hours
15. Jupiter Medical Center, Jupiter, FL, Distance from campus: 34 hours
16. Kittitas Valley Community Hospital, Ellensburg, WA, Distance from campus: 21 hours
17. Little Colorado Medical Center, Winslow, AZ, Distance from campus: 3 hours
18. La Paz Regional Hospital, Parker, AZ, Distance from campus: 3 hours
19. Mountain Vista Medical Center, Mesa, AZ, Distance from campus: 45 minutes
20. Mount Graham Regional Medical Center, Safford, AZ, Distance from campus: 2 hours
21. Palms West Hospital, Loxahatchee, FL, Distance from campus: 34 hours
22. Saint James Healthcare, Butte, MT, Distance from campus: 16 hours
23. Saint Luke’s Medical Center, Phoenix, AZ, Distance from campus: 30 minutes
24. Saint Luke Community Hospital, Ronan, MT, Distance from campus: 18 hours
25. San Juan Regional Medical Center, Farmington, NM, Distance from campus: 8 hours
26. Sunnyside Community Hospital, Sunnyside, WA, Distance from campus: 20 hours
27. Tampa General Hospital, Tampa, FL, Distance from campus: 32 hours
28. Tri State Memorial Hospital, Clarkston, WA, Distance from campus: 19 hours
29. Tuba City Indian Medical Center, Tuba City, AZ, Distance from campus: 6 hours
30. Tsehootsooi Medical Center, Fort Defiance, AZ, Distance from campus: 6 hours

NAAP 620, 621, 622, 623, 724 Clinical Rotation Didactic Component I, II, III, IV, V

This course comprises the didactic component of NAAP 615 through NAAP 719. The student’s retention of didactic information from the first year of the program will be evaluated and a professional case report will be presented by

the student.

Each course 2 credits

Prerequisites: Completion of all didactic course work through spring quarter of first year; successful completion of previous Clinical Rotation.

PHYS 1571, 1582 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 health in physiologic terms and appreciation of diverse regulatory processes that maintain the homeostasis of the human body.

Each course 4 credits

ELECTIVE COURSE DESCRIPTIONS

NAAP 500 Independent Study

This independent study course provides an opportunity for didactic, simulation, or clinical inquiry to supplement the required course of study.

0.5 - 6.0 credits

FACULTY

Shari M. Burns, Ed.D.
University of Phoenix
School of Advanced Studies
Director and Associate Professor

Rodney Fisher, M.S.
Columbia University
Assistant Professor

F. Scott Imus, M.S.N.
Wake Forest University Baptist Medical Center
Assistant Professor

Shaun Mendel, M.S.
California State University Fullerton
Assistant Program Director and Assistant Professor

Christol Williams, D.N.A.P.
University of Medicine and Dentistry of New Jersey
Assistant Professor
MISSION
The Midwestern University Doctor of Psychology (Psy.D.) in Clinical Psychology Program educates students in the general practice of evidence-based clinical psychology serving a diverse population.

ACCREDITATION

Midwestern University is accredited by The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools (HLC/NCA), 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1413; 800/621-7440.

NATIONAL REGISTER OF HEALTH SERVICE PROVIDER STATUS
This program meets the "Guidelines for Defining 'Doctoral Degree in Psychology'" as implemented by the Association for State and Provincial Psychology Boards (ASPPB)/National Register Designation Project. Therefore, a graduate of this designated program who decides to apply for licensure as a psychologist typically will meet the jurisdictional educational requirements for licensing. However, individual circumstances vary, and, there are additional requirements that must be satisfied prior to being licensed as a psychologist. Please contact the state / provincial / territorial licensing board in the jurisdiction in which you plan to apply for exact information. Additional information including links to jurisdictions is available on the ASPPB’s web site: www.asppb.org.

Once licensed, a graduate of a designated program is eligible to apply for credentialing as a Health Service Psychologist by the National Register of Health Service Psychologists. Graduation from a designated program typically ensures that the program completed meets the educational requirements for the National Register credential. However, individual circumstances vary, and, there are additional requirements that must be satisfied prior to being credentialed by the National Register of Health Service Psychologists and listed on the FindaPsychologist.org database. Doctoral students may apply to have their credentials banked and reviewed prior to licensure. For further information about the National Psychologist’s Trainee Register and the National Register application process, consult the National Register’s web site: www.nationalregister.org.

DEGREE DESCRIPTION
The Doctor of Psychology (Psy.D.) degree is the degree of choice for persons interested in becoming high-level practitioners 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 overall goal is to prepare students for careers in the practice of professional psychology. There are five specific goals, defined as competencies, and an emphasis on training in Integrated Behavioral Health Care. These competencies are:

1. **Research and Evaluation/Foundations of Psychological Science:** This competency includes the areas of research and evaluation, test construction, statistics, scholarship, and scientific mindedness. This competency rests on the assessor's foundation of knowledge, skills, and professional attitudes in the areas of tests and measurement, statistics, qualitative methods, and experimental design. This competency also encompasses knowledge of the history of scientific psychology and its clinical applications, including the areas of physiological psychology, neuropsychology, psychopharmacology, cognitive and affective bases of behavior, history and systems of psychology, and social psychology.

2. **Professionalism:** This competency includes the areas of ethics, diversity (defined broadly), self-care, awareness, self-reflection, practice management, collegiality, professional problem solving, a commitment to lifelong learning, and critical thinking which underlies all subject matter and professional behavior.
(3) **Diagnostics and Assessment:** This competency rests on the foundation of knowledge, skills, and professional attitudes in the areas of human development and psychopathology. The Diagnostics and Assessment competency requires an ability to acquire and synthesize multiple sources of data into a comprehensive, cohesive and clearly articulated communication form.

(4) **Intervention:** This competency requires students to demonstrate an ability to intervene with clients from an articulated theoretical perspective. Intervention is broadly defined to include a variety of activities that promote or sustain well-being or provide remedial or preventative services. Intervention populations are broadly defined (e.g., individuals, groups, couples, families, communities). Students demonstrate knowledge, skills and attitudes congruent with evidence-based practice rationales and can articulate them.

(5) **Relationship and Communication:** This competency requires a demonstration of interpersonal skills and effective written and oral communication. Ability to consult and collaborate with others, interdisciplinary teams and members of agencies and organizations is considered part of relationship skills. Evidence of ability to teach/present and manage at a developmentally appropriate level is also included. Supervisory ability (including the ability to be supervised) is part of this competency.

**Integrated Behavioral Healthcare Emphasis:** The MWU Clinical Psychology Program emphasizes broad and general training in psychology. In addition, emphasis on psychological practice in integrated healthcare settings is provided. MWU views psychologists as generalists in healthcare. Because we are housed in a medical school and healthcare environment, students have the opportunity to interact with many healthcare professionals. As part of this interdisciplinary approach, training in other related psychological activities is available to interested students, including neuropsychology, health psychology and behavioral medicine.

**Program Philosophy**

The Doctor of Psychology in Clinical Psychology Program follows the practitioner-scholar model of preparation that was accepted by the American Psychological Association at the Vail Conference. This model recognizes the ongoing need in society for expertly trained practitioners in the field of clinical psychology. The practitioner-scholar philosophy dictates that competent practitioners are required to have an extensive understanding of the theoretical principles in the clinical practice of psychology and the ability to utilize the knowledge in specific clinical situations. This program has the philosophy of educating and training individuals to enter careers emphasizing the delivery of direct psychological services and consultation. Relevant theory, research, and field experiences are integrated toward the development of competent and ethical practitioners who are respectful of individual and cultural differences in the provision of psychological services.

**Program Requirements**

The Psy.D. Program is designed to be completed in four to five years. Typically, 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 Dissertation. A fourth year of advanced elective practicum experience prior to internship is strongly recommended for all students. Some evening courses may be scheduled.

**Master of Arts in Clinical Psychology Degree**

Students are only admitted into the Psy.D. Program. There is no separate master degree 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 electing to receive the M.A. degree must have successfully completed all of the 1500 and 1600 level courses, clerkship, and practicum experiences for a total of 115.5 credit hours.

The M.A. in Clinical Psychology is awarded to provide an additional credential certifying the work completed by students who are pursuing the Psy.D. degree.

**Clerkship**

The Psy.D. Program offers a number of supervised clinical training experiences beginning in the first year of study. Students are selected for clerkships following consideration of the Program Director and clerkship supervisor.

**Clinical Practicum**

All students must successfully complete practicum experiences in the second and third year of study. Students enter practicum training if they are making satisfactory progress in the program and receive approval of the Program Director. Practicum is a field experience that spans the academic or calendar year. Practicum training is completed at numerous hospitals, agencies, and organizations throughout the Phoenix metropolitan area. The specific clinical focus of the experience varies according to the student’s needs, interests, and availability of practicum sites. Students complete a minimum of eight quarters of practicum. Students work approximately 16 to 20 hours per week in a clinical setting. The practicum experiences in psychodiagnostics and psychotherapy require a minimum of 1,000 hours over two years. Practicum placements may require work in the summer months, over holiday periods, and during breaks in the academic calendar. The Director of Clinical 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 knowledge, skills and attitudes accumulated during the first two years of study, demonstrating organizational 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 at the end of the first two years of study.

**Internship**
The predoctoral internship is a 2,000-hour requirement at an approved 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, a student can apply for an internship. Students must complete all required coursework and practicum experiences before beginning the internship. The internship may or may not be a paid position, depending on the placement of the student.

**Dissertation**
A 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 Dissertation takes a minimum of nine to 12 months to complete. Students are required to develop a proposal for their project that must be approved by the Dissertation Committee before the project is implemented. The student then completes any data collection and analysis required for the project and completes a written document about the project. Each student must present an oral defense of the project upon its completion. Following the defense, the student must provide the program with copies of the Dissertation that are suitable for binding. With the Program Director’s approval, students needing additional time to complete the Dissertation following completion of their internship must register for PSYC 1820 Dissertation Continuation, a 1 credit course.

**ADMISSIONS**
The Clinical Psychology Program considers applicants who possess the academic and professional promise necessary for development as competent, caring members of the healthcare community. The Program requires an interview with applicants before decisions are made concerning admission into the Program.

**Admission Requirements**
To be considered for admission within the competitive selection process applicants must submit the following documented evidence:

1. Completion of a bachelor’s degree from a regionally accredited college or university.
   - A minimum cumulative undergraduate grade point average (GPA) of 3.00 on a 4.00 scale.

   - If the applicant has graduate courses, but no degree granted, this will be viewed as an extension of the undergraduate work and will be evaluated as part of a cumulative GPA.
   - If the applicant has a conferred graduate degree in psychology or a related mental health field from a regionally accredited university, the GPA from that graduate program will be weighted more heavily than the undergraduate GPA.

2. Completion of 18 semester hours or equivalent of prerequisite coursework in psychology with a grade of C or better including: Introduction to General Psychology, Human Growth & Development or Personality Theory, Abnormal Psychology, Statistics or Tests and Measurements.

3. Graduate Records Examination (GRE) general tests taken no earlier than January 1, 2009.
   - Scores will be accepted from tests taken no earlier than January 1, 2009.
   - For more information about the GRE, contact Educational Testing Services (ETS) at 610/771-7670, 866/473-4373 or visit www.ets.org/gre.

4. Demonstration of community service or extracurricular activities.

5. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.

6. Oral and written communication skills necessary to interact with patients and colleagues.

7. Commitment to abide by Midwestern University’s Drug-Free Workplace and Substance Abuse Policy.

8. Passage of the Midwestern University criminal background check.

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

Applicants who wish to receive 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:

1. Completion of a bachelor’s degree from a regionally accredited college or university.
2. A minimum cumulative undergraduate grade point average (GPA) of 3.00 on a 4.00 scale.
International applicants who do not provide documentation of acceptable US or Canadian course/degree equivalency will not receive credit, and will be required to complete all prerequisite courses at an accredited college or university in the United States, or at a recognized post-secondary institution in Canada that uses English as its primary language of instruction and documentation.

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

Application Process and Deadlines
To be considered for admission to the Clinical Psychology Program, students must submit the following to the Office of Admissions:

1. Completed online application at www.midwestern.edu under the AZ Clinical Psychology Program section.
2. Three signed and sealed letters of recommendation from professionals who know the student well (teachers, advisors, professional colleagues or supervisors).
3. A personal statement that reflects the educational and career goals of applicants and provides a self-appraisal of their qualifications for the Program and profession. Applicants are encouraged to include explanations of any factors in their application materials that might impact evaluation of their application.
5. Official transcripts from all postsecondary schools attended.
6. GRE general test scores.

Send all application materials to:
Midwestern University
Office of Admissions
19555 N. 59th Avenue
Glendale, AZ 85308
888/247-9277 or 623/572-3215
admissaz@midwestern.edu

Applicants may track the receipt of their application materials and the status of their files on the University’s website with the instructions for accessing account information that will be sent by the Office of Admissions after receipt of their application.

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address and e-mail address. All requests for application withdrawals must be made in writing to the Office of Admissions (address above).

Interview and Selection Process
Completed applications are reviewed to determine the applicant’s eligibility for interviews, which are conducted on the Midwestern University campus during several admission days throughout the admissions cycle. The personal interview is the final step in the application process. Upon completion of the interview, the Program makes admissions recommendations and the Dean, via the Office of Admissions, notifies applicants of admissions recommendations.

Admissions decisions are made on a rolling basis until all available positions are filled. Students are advised to complete their application files as early as possible to ensure timely consideration, but no later than July 15th.

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: A candidate must be able to make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate should 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 postural control, neuromuscular control and eye-to-hand coordination.
4. Intellectual, Conceptual, Integrative, and Quantitative Abilities: The candidate must be able to measure, calculate, reason, analyze, record, and synthesize large amounts of information and
problem solve. 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 that are assessed during the admissions and education process.

Candidates 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (/Program) would need to make that would allow the candidate to complete the curriculum. The College (/Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter's tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeit of their seat.

Reapplication Process
After receiving either a denial or end-of-cycle letter, prospective students may reapply for the following year’s admissions cycle. Before reapplying, however, individuals contemplating reapplication should seek the advice of an admissions counselor. To initiate the reapplication process, prospective students must complete and submit new applications and proceed through the standard application process.

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:

1. A maximum of 40 quarter hours of credit for coursework completed prior to matriculation may be considered according to CHS policy for advanced placement.
2. Transferred course credit is limited to graduate level courses from recognized, regionally accredited degree granting institutions.
3. Credit is not transferred for a clinical practicum or an internship.
4. Credit may be awarded for required courses from other doctoral programs.
5. Credit may only be awarded for courses in which grades of B- or better were attained.
6. The Program may require a competency examination to determine satisfactory performance before awarding credit for a course.
7. Credit can only be awarded for courses completed within the seven-year period prior to matriculation.

GRADUATION REQUIREMENTS
The M.A. in Clinical Psychology is awarded if the following conditions are fulfilled by students in the Psy.D. Program:

1. Satisfactory completion of 115.5 credit hours including all required 1500 and 1600 level courses (93 credits), Interdisciplinary Healthcare courses (1.5 credits), clerkships (3 credits), and practica and practicum seminar (16 credits).
2. Attainment of a cumulative grade point average of 3.00 or higher and a minimum of B- or P in all required courses, seminars, and practica.
3. Full payment of all outstanding tuition and fees.
4. Favorable recommendation for master’s degree conferral from the Clinical Psychology Program Student Academic Review Committee and the CHS Student Promotion and Graduation Committee.
5. Recommendation for conferral of the master’s degree by the University Faculty Senate.

To receive the Psy.D. in Clinical Psychology, the student must complete all requirements within seven years of matriculation. To be eligible for graduation, the student must meet the following requirements:

1. Satisfactory completion of 222.5 quarter credit hours, including the required courses and seminars (113 credits), elective courses (12 credits), Interdisciplinary Healthcare Core Courses (1.5 credits); clerkships (3 credits), practica and practicum seminars (32 credits), internship (50 credits), and Dissertation (9 credits).
2. Attainment of a cumulative grade point average of 3.00 or higher and a minimum of B- or P in all required courses, seminars, and practica.
3. Satisfactory completion of the Qualifying Examination and program-based competencies.
4. Satisfactory completion of an approved one-year internship.
5. Satisfactory completion of a Dissertation including a successful oral defense and the submission of a copy for binding.

6. Favorable recommendation for doctoral degree conferral from the Clinical Psychology Program Student Academic Review Committee and the CHS Student Promotion and Graduation Committee.
7. Recommendation for conferral of the doctoral degree by the University Faculty Senate.
8. Full payment of all outstanding tuition and fees.
9. Completion of all graduation clearance requirements as instructed by the Office of the Registrar.

Requirement for Full-Time Study in Residence
Typically, students will spend three years in full-time study on campus (in residence). All courses, except practicum placements, are held on campus. In all circumstances, at least one full year of full-time study on campus must be satisfied as a condition of graduation. The requirement can be satisfied in either of the following ways:

1. The successful completion with a minimum of twelve quarter hours of credit per term for three consecutive quarters, or
2. The successful completion of 40 quarter hours within one twelve-month period including the summer quarter.

LICENSURE REQUIREMENTS
Licensure requirement and standards for professional practice vary from state to state and prospective students are urged to examine the requirements of the specific state in which they plan to practice. The Association of State and Provincial Psychology Boards can provide useful information on this issue.

CURRICULUM
The MWU/CHS Clinical Psychology Program reserves the right to alter its curriculum, however and whenever it deems appropriate.

Total graduate required credit hours: 222.5

First Year

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<td>PSYC 1640</td>
<td>Introduction to Neuropsychology</td>
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<td>PSYC 1649</td>
<td>Group Therapy</td>
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<td>PSYC 1655</td>
<td>History and Systems</td>
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<td>PSYC 1730</td>
<td>Advanced Psychotherapy Practice</td>
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**Winter Quarter**

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<td>PSYC 1708</td>
<td>Mental Health Law</td>
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<td>PSYC 1739</td>
<td>Issues in Substance Abuse</td>
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<tr>
<td>PSYC 1751</td>
<td>Advanced Integrated Behavioral Healthcare</td>
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<td>PSYC 1780</td>
<td>Dissertation Development</td>
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<td>PSYC 1784</td>
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**Spring Quarter**

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<td>Supervision and Consultation Models &amp; Practice</td>
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<tr>
<td>PSYC 1781</td>
<td>Dissertation Seminar</td>
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<td>PSYC 1786</td>
<td>Advanced Practicum III</td>
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<td>PSYC 1787</td>
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**Summer Quarter**

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<td>PSYC 1788</td>
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<td>PSYC 1789</td>
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<tr>
<td>PSYC 1799</td>
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**Fourth Year**

**Total credits Years 1,2,3 and 4: 222.5**

**Award Psy.D. degree**

Total Credits Fourth Year Required: 50

<table>
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Students must complete a minimum of 12 hours of elective credit in the MWU/CHS Clinical Psychology Program. Elective course offerings may include the following:

**Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PSYC 1709</td>
<td>Forensic Psychology</td>
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<tr>
<td>PSYC 1715</td>
<td>Animal Assisted Psychotherapy</td>
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<tr>
<td>PSYC 1716</td>
<td>Introduction to Neuropsychological Assessment</td>
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<td>PSYC 1721</td>
<td>Human Sexuality</td>
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<tr>
<td>PSYC 1735</td>
<td>Practice Management Issues</td>
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<tr>
<td>PSYC 1748</td>
<td>Bullying and Interpersonal Violence</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 1749</td>
<td>Psychological Management of Chronic Pain</td>
<td>3</td>
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<tr>
<td>PSYC 1750</td>
<td>Stress Management, Relaxation and Hypnotherapy</td>
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<tr>
<td>PSYC 1752</td>
<td>Treatment of Traumatic Techniques</td>
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<tr>
<td>PSYC 1753</td>
<td>Humanistic and Experiential Theory and Therapy</td>
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<td>PSYC 1775,</td>
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<td>PSYC 1777</td>
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<td>PSYC 1778</td>
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**5 Year Curriculum**

For those students who choose to pursue the recommended option of an advanced elective practicum year prior to internship, the curriculum sequence is the same for the first two years, and the curriculum sequence for years 3 to 4 follows:

**Third Year**

Total Quarter Credit Hours Required: 50

**Fall Quarter**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>PSYC 1711</td>
<td>Advanced Statistics</td>
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<td>PSYC 1730</td>
<td>Advanced Psychotherapy Practice</td>
<td>3</td>
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<tr>
<td>PSYC 1771</td>
<td>Advanced Psychopathology</td>
<td>2</td>
</tr>
<tr>
<td>PSYC 1782</td>
<td>Advanced Practicum I</td>
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<tr>
<td>PSYC 1783</td>
<td>Advanced Practicum Seminar I</td>
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Total Quarter Credit Hours Required: 24

Fall Quarter
PSYC 1882 Advanced Elective Practicum I 3
PSYC 1883 Advanced Elective Practicum Seminar I 1
PSYC 1795 Dissertation 2
Total 6

Winter Quarter
PSYC 1884 Advanced Elective Practicum II 3
PSYC 1885 Advanced Elective Practicum Seminar II 1
PSYC 1796 Dissertation 2

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

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits

PSYC 1501 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, certification and 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 1502 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. Other topics include a study of models of development including learning theory, cognitive theory (Piaget), and other 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 1503 Life Span Development II
This course examines the biopsychosocial factors in adult development and aging. Topics include physical and psychological 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 and career as it impacts on basic adult life processes. Retirement is examined as it relates to psychological consolidation and the prospect of death and dying. Cross-cultural, gender, familial, and gender perspectives are included.

3 credits

PSYC 1508 Fundamentals of APA Style
This course introduces the student to the basic guidelines for the correct usage of the APA style in writing. The course provides a comprehensive overview of the Publication manual of the American Psychological Association 6th Ed. Throughout the quarter, participants in this course will increase their familiarity with the APA style guidelines through an in-depth examination of each chapter of the manual.

1 credit

PSYC 1509 Fundamentals of Graduate Level Writing
This course serves as a broad overview of basic skills necessary for graduate level writing; it provides a review of fundamental grammatical rules and principles, including but not limited to: sentence structure, spelling, punctuation, tense shifting, transitions, subject-pronoun agreement and use of formal tone. A basic format for how to write a research paper will be provided, incorporating the use of: an effective thesis statement, main themes/ideas and appropriate paragraph structure. Finally, the distinction between expository, persuasive and analytical writing will be highlighted.

1 credit

PSYC 1510 Statistics
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 research. Topics include complex factorial ANOVA, Repeated Measures ANOVA, multiple regression, power analysis, MANOVA, and factor analysis.

3 credits

PSYC 1514 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 1515 Tests and Measurements I
This is the first 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 1516 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.

2 credits

Prerequisites: PSYC 1515 Tests and Measurements I

PSYC 1520 Clinical Appraisal and Interviewing
This 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 differential diagnosis, report writing, inferential analysis, diversity issues related to appraisal and interviewing, and psychological inference.

3 credits
Prerequisites: PSYC 1570 Psychopathology: Child and Adolescent; PSYC 1572 Psychopathology: Anxiety-Based and Personality Disorders; PSYC 1573 Psychopathology: Psychotic and Mood Disorders

**PSYC 1524 Intelligence Testing I**
This course introduces the student to the theory, administration, scoring, and interpretation of standard intelligence tests. Intellectual assessment scales examined include the Stanford-Binet, and the various Wechsler Scales. Basic interpretation and report writing skills are developed. Biopsychosocial, cultural, ethnic, and disability factors affecting test validity and interpretation are also examined. 3 credits

**PSYC 1525 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 and report writing and 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
Prerequisites: Must be taken concurrently with PSYC 1524 Intelligence Testing I

**PSYC 1526 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 1527 Personality Assessment II: Projective Techniques**
This course provides the clinical psychology student with instruction and practice in the administration, scoring, and interpretation of the projective techniques including the Rorschach, TAT, 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. 3 credits

**PSYC 1530 Introduction to Psychotherapy**
From a historical basis, this course introduces the student to the various psychotherapeutic traditions. Treatment approaches examined include psychoanalytic, psychodynamic, Gestalt, behavioral, cognitive/behavioral, interpersonal, and others. Through both didactic and experiential means, the student will be exposed to the fundamental aspects of each treatment approach. Also reviewed is the current literature on empirically verified treatment approaches as well as issues related to culture, ethnicity, gender, and disabilities. 3 credits

**PSYC 1550 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 1560 Cognitive-Affective Bases of Behavior**
This course explores the role of thought and emotion in its influence on human behavior. Normative cognitive and affective processes are examined, including major theoretical perspectives, research findings, and controversies. Historic and current research is examined in support of various models as well as gender, cultural, ethnic and disability issues. 3 credits

**PSYC 1565 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

**PSYC 1570 Psychopathology: 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, eating disorders, and disorders of behavior and affect. Theories on the etiology of the disorders are reviewed in the context of both diagnosis and treatment. 3 credits
Prerequisites: PSYC 1502 Lifespan Development I

**PSYC 1572 Psychopathology: Anxiety-Based and Personality Disorders**
This course reviews the theory and research underlying the anxiety-based and personality disorders. Topics include anxiety disorders, dissociative and somatoform disorders, personality disorders, impulse control disorders, and psychosexual disorders. 3 credits

**PSYC 1573 Psychopathology: Psychotic and Mood Disorders**
This course reviews the theory and research underlying the psychotic and mood disorders. Topics include symptoms and symptom presentations of schizophrenia, depressive and
bipolar disorders, other psychotic disorders, cognitive disorders, and substance abuse and dependence. The importance of cultural, gender, ethnic, and disability factors will be discussed in relation to the psychiatric disorders.

3 credits

PSYC 1582 Clerkship I
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 a site supervisor and also receive feedback from faculty in the clinical psychology program.

1 credit
Prerequisites: Approval of Program Director

PSYC 1583 Clerkship II
This is a continuation of PSYC 1582.
1 credit
Prerequisites: PSYC 1582 Clerkship I and Approval of Program Director

PSYC 1584 Clerkship III
This is a continuation of PSYC 1583.
1 credit
Prerequisites: PSYC 1583 Clerkship II and Approval of Program Director

PSYC 1601 Advanced Professional Development and Ethics
This course examines the role of the psychologist in divergent settings. Topics include ethics, standards of practice, models and techniques of supervision, practice development and management, documentation needs, record keeping, and information protection in light of the latest Department of Health and Human Services and Health Insurance Portability and Accountability regulations and liability management.
2 credits
Prerequisites: PSYC 1501 Professional Issues and Ethics

PSYC 1610 Diversity in Clinical Psychology
This course examines the impact of culture, race, ethnicity, gender, sexual orientation, disability 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 these issues 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

PSYC 1620 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.
3 credits
Prerequisites: PSYC 1520 Clinical Appraisal and Interviewing; PSYC 1524 Intelligence Testing I; PSYC 1525 Intelligence Testing II; PSYC 1526 Personality Assessment I; PSYC 1527 Personality Assessment II: Projective Techniques

PSYC 1631 Cognitive Theories & Approaches to Psychotherapy
From 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 1530 Introduction to Psychotherapy; PSYC 1560 Cognitive-Affective Bases of Behavior

PSYC 1632 Psychodynamic Approaches to Psychotherapy
Beginning with the seminal work of Freud, this course examines the theory and technique in the psychodynamic psychotherapy. Classical and newer models, such as Self Psychology and Object Relations, are included. 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
Prerequisites: PSYC 1530 Introduction to Psychotherapy; PSYC 1560 Cognitive-Affective Bases of Behavior

PSYC 1635 Marriage and Family Counseling and Therapy
Taking from family systems theory, this course examines the basic models, 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
Prerequisites: PSYC 1530 Introduction to Psychotherapy

PSYC 1636 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, behavior problems, phobia, and obsessive-compulsive disorder.

3 credits
Prerequisites: PSYC 1530 Introduction to Psychotherapy; PSYC 1560 Cognitive-Affective Bases of Behavior

PSYC 1639 Integrated Behavioral Healthcare
This course focuses on the skills needed to provide psychological services in primary care settings. Topics include consultation and collaboration with primary care physicians; improving patient adherence to medical treatment regimens; flexibility of scheduling to match services to patients' identified needs; brief, focused assessment and intervention strategies; and health behaviors for lifestyle changes.

3 credits
Prerequisites: PSYC 1530 Introduction to Psychotherapy; Core 1560 Interdisciplinary Healthcare I; Core 1570 Interdisciplinary Healthcare II; Core 1580 Interdisciplinary Healthcare III

PSYC 1640 Introduction to Neuropsychology
This course reviews the major systems and structures of the brain and central nervous system. In addition to examining normal neurological functioning, the course discusses common impairments in cognition, language, and perception with a neurological base. Topics covered include neurological syndromes such as cerebral vascular accidents, head trauma and concomitant brain injury, seizure disorders, and various forms of dementia. An overview of neuropsychological assessment instruments will be introduced.

3 credits
Prerequisites: PSYC 1550 Biological Bases of Behavior

PSYC 1649 Group Therapy
This course includes the history and current models and theories of group therapy. Both didactic and experiential methods are used to introduce the student to different kinds of group interventions. The recommended use of group interventions for different types of problems, settings, and age groups are included.

3 credits
Prerequisites: PSYC 1530 Introduction to Psychotherapy

PSYC 1650 Psychopharmacology
This course examines the development and use of pharmacological agents in the treatment of psychopathology. Further, the course examines the use of medication with empirically verified therapy approaches. All classes of psychopharmacological agents are reviewed including neuroleptics, anxiolytics, mood stabilizers, and antidepressants.

3 credits
Prerequisites: PSYC 1550 Biological Bases of Behavior

PSYC 1654 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.

3 credits

PSYC 1655 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 psychology. Major theorists such as Freud, Adler, Jung, Maslow, Skinner, Piaget, Beck, and Meichenbaum, are examined.

3 credits

PSYC 1680 Research Seminar
This course provides supervision for the student in the development and analysis of student-based research. The faculty advisor provides the student with direction in the formulation of the research question, research design, analysis, and write-up. Effectiveness and Efficacy of various interventions are also reviewed.

2 credits
Prerequisites: PSYC 1510 Statistics; PSYC 1514 Research Methods and Design

PSYC 1682 Practicum I
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 credits
Prerequisites: Approval of Program Director

PSYC 1683 Practicum Seminar I
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
Prerequisites: Approval of Program Director

PSYC 1684 Practicum II
This is a continuation of PSYC 1682.

3 credits
Prerequisites: PSYC 1682 Practicum I and Approval of Program Director

PSYC 1685 Practicum Seminar II
This is a continuation of PSYC 1683.

1 credit
Prerequisites: PSYC 1683 Practicum Seminar I and Approval of Program Director
PSYC 1686 Practicum III
This is a continuation of PSYC 1684.
3 credits
Prerequisites: PSYC 1684 Practicum II and Approval of Program Director

PSYC 1687 Practicum Seminar III
This is a continuation of PSYC 1685.
1 credit
Prerequisites: PSYC 1685 Practicum Seminar II and Approval of Program Director

PSYC 1688 Practicum IV
This is a continuation of PSYC 1686.
3 credits
Prerequisites: PSYC 1686 Practicum III and Approval of Program Director

PSYC 1689 Practicum Seminar IV
This is a continuation of PSYC 1687.
1 credit
Prerequisites: PSYC 1687 Practicum Seminar III and Approval of Program Director

PSYC 1708 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
Prerequisites: PSYC 1601 Advanced Professional Development and Ethics

PSYC 1711 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 1510 Statistics; PSYC 1514 Research Methods and Design

PSYC 1732 Supervision and Consultation Models & Practice
This course focuses on supervision and consultation in psychology. Major models of supervision and consultation will be presented. Both didactic and experiential methods of instruction will be used to expose students to the implementation and practices of supervision and consultation.
3 credits

PSYC 1739 Issues in Substance Abuse
This course presents major theories of etiology and treatment of substance abuse and dependence. Addictions to different classes of substances, intoxication and withdrawal effects, and methods of assessment, diagnosis, treatment, management, and relapse prevention will be discussed.
3 credits
Prerequisites: PSYC 1530 Introduction to Psychotherapy; PSYC 1550 Biological Bases of Behavior

PSYC 1751 Advanced Integrated Behavioral Healthcare
This course focuses on the practice of psychology integrated with primary healthcare. Issues regarding practice concerns, diversity issues, and consultative skills will be addressed.
1 credit
Prerequisites: PSYC 1639 Integrated Behavioral Healthcare

PSYC 1771 Advanced Psychopathology
This is an advanced course in psychopathology which will focus on complex case studies to provide greater breadth and depth of knowledge in the areas of clinical theory, clinical research findings, co-morbidity and socio-cultural diversity. This course will build on material covered in previous classes. Special consideration is given to conceptualization of problems from different theoretical orientations. Awareness of one’s own prejudices and biases will be emphasized, as well as a consideration of the professional context within which psychologists work. The course will be taught through lecture, case study presentations, class discussion, readings and class presentations. Guest speakers may be utilized throughout the course. This class will emphasize the production of assignments that mirror professional activities of practicing clinical psychologists, and will include proposals, papers, and presentations.
2 credits
Prerequisites: PSYC 1520 Clinical Appraisal and Interviewing; PSYC 1570 Psychopathology: Child and Adolescent; PSYC 1572 Psychopathology: Anxiety-Based and Personality Disorders; PSYC 1573 Psychopathology: Psychotic and Mood Disorders

PSYC 1780 Dissertation Development
This course focuses on the development of a scholarly project. It will assist the student with exploring an area of interest and developing that idea into formalized project proposal. Students will be able to utilize the seminar-based process to
receive consultation from the instructor as well as class members.
1 credit
Prerequisites: Approval of Program Director

*PSYC 1781 Dissertation Seminar*
This seminar-based course focuses on the development of the Dissertation. Other aspects of the project (review of the literature, etc.) are reviewed. Practical considerations, such as a timeline for completion of the project are developed.
1 credit
Prerequisites: PSYC 1780 & Dissertation Development

*PSYC 1782 Advanced Practicum I*
This practicum experience offers the opportunity to enhance the student’s skills in a particular area of interest.
3 credits
Prerequisites: PSYC 1688 Practicum IV and Approval of Program Director

*PSYC 1783 Advanced Practicum Seminar I*
This seminar reviews the progress of students enrolled in the advanced practicum. Students meet on campus to discuss training experiences.
1 credit
Prerequisites: PSYC 1689 Practicum Seminar IV and Approval of Program Director

*PSYC 1784 Advanced Practicum II*
This is a continuation of PSYC 1782.
3 credits
Prerequisites: PSYC 1782 Advanced Practicum I and Approval of Program Director

*PSYC 1785 Advanced Practicum Seminar II*
This is a continuation of PSYC 1783.
1 credit
Prerequisites: PSYC 1783 Advanced Practicum Seminar I and Approval of Program Director

*PSYC 1786 Advanced Practicum III*
This is a continuation of PSYC 1784.
3 credits
Prerequisites: PSYC 1784 Advanced Practicum II and Approval of Program Director

*PSYC 1787 Advanced Practicum Seminar III*
This is a continuation of PSYC 1785.
1 credit
Prerequisites: PSYC 1785 Advanced Practicum Seminar II and Approval of Program Director

*PSYC 1788 Advanced Practicum IV*
This is a continuation of PSYC 1786.
3 credits
Prerequisites: PSYC 1786 Advanced Practicum III and Approval of Program Director

*PSYC 1789 Advanced Practicum Seminar IV*
This is a continuation of PSYC 1787.
1 credit
Prerequisites: PSYC 1787 Advanced Practicum Seminar III and Approval of Program Director

*PSYC 1794, 1795, 1796, 1797, 1798, 1799 Dissertation*
Completion of the Dissertation is required for the doctoral degree.
Each course 2-9 credits
Prerequisites: PSYC 1781 & Dissertation Seminar and Approval of Program Director

*PSYC 1800 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.
50 credits
Prerequisites: Approval of Program Director

*PSYC 1811, 1812, 1813, 1814 Dissertation Continuation I, II, III, IV*
This course sequence is reserved for students on internship needing additional time for completion of the required Dissertation.
Each quarter 0.5 credits
Prerequisites: PSYC 1799 Dissertation; Concurrent enrollment in PSYC 1800 Internship; and Approval of Program director.

*PSYC 1820 Dissertation Advanced Continuation*
This course is reserved for students needing additional quarters beyond the internship year in the program to complete the required Dissertation.
Each quarter 1 credit
Prerequisites: PSYC 1798 Dissertation or PSYC 1799 Dissertation and Approval of Program director.

*PSYC 1821 Internship Continuation*
This course is reserved for students requiring additional time to complete internship requirements beyond the fourth year in the program.
Each quarter 0.5 credits
Prerequisites: PSYC 1800 Internship and Approval from Program Director

**Elective Course Descriptions**

*PSYC 1709 Forensic Psychology*
Building on basic information of the legal system and mental health law, students will gain a broad understanding of the ways in which psychologists interact with the legal system.
This may include assessment, evaluation, treatment, testimony, and consultation.
3 credits
Prerequisites: PSYC 1708 Mental Health Law

**PSYC 1715 Animal Assisted Psychotherapy**
Animal Assisted Psychotherapies (AAT), as well as their theoretical foundations, are reviewed in this course. Both canine assisted psychotherapy (CAP) and equine assisted psychotherapy (EAP) approaches will be addressed as well as brief discussions of AAT with other animals. There is an emphasis on developing skills in case analysis and treatment, with special attention to the development and processing of treatment activities.
3 credits

**PSYC 1716 Introduction to Neuropsychological Assessment**
This course provides an introduction to the assessment of brain-behavior relationships. A variety of neuropsychological tests will be introduced, covering the major cognitive domains in Neuropsychology, with an emphasis on the process by which such tests are interpreted, in light of all the data available, including historical, interview, observational, and test data.
3 credits

**PSYC 1721 Human Sexuality**
The purpose of this course is to provide the Clinical Psychology student with an introduction to human sexuality throughout the life-cycle. Sexual development and issues affecting individuals and couples will be examined and sexual dysfunctions will be reviewed along with treatment modalities for the most common disorders.
3 credits

**PSYC 1735 Practice Management Issues**
This course will introduce students to business principles as they apply to professional psychology. Students will be exposed to various business-of-practice issues and decisions, such as starting, managing, marketing, and diversifying a psychology practice, and will consider the related ethical, legal, and financial issues involved.
3 credits

**PSYC 1748 Bullying and Interpersonal Violence**
Students will become aware of the causes of violence, the impact on victims of violence, and programmatic attempts to reduce violence. Students will explore current research regarding violence and learn prevention and treatment strategies.
3 credits

**PSYC 1749 Psychological Management of Chronic Pain**
This course presents major theories and techniques of chronic pain management from the psychological perspective. Varying pain disorders, co-occurring disorders, treatment and management modalities, special populations, and relapse prevention will be explored.
3 credits

**PSYC 1750 Stress Management, Relaxation and Hypnotherapy Techniques**
This course surveys stress management, relaxation and other techniques across theoretical orientations and philosophies that may be useful and effective in interventions to manage stress, reduce anxiety, and promote relaxation. Complementary and alternative medicine approaches, such as yoga and meditation, psychoneuroimmunology and its relationship to health, self-care skills, and health behavior change will be included.
3 credits

**PSYC 1752 Treatment of Traumatic Stress**
This course covers fundamental skills in assessing and conceptualizing traumatic stress reactions and providing empirically-supported treatments to those affected by traumatic events. The course material includes readings and discussion on the physiological, cognitive, emotional, and behavioral impact of traumatic stress as well as instruction and practice in applying treatment techniques including relaxation training and biofeedback, Cognitive Processing Therapy, emotion regulation strategies, and exposure-based interventions. Students are also exposed to principles of psychological first aid to trauma victims as well as early intervention in crisis situations. All of the course material is presented in light of the cultural and contextual factors that influence the onset, course, and outcomes of psychological distress that results from exposure to traumatic events.
3 credits

**PSYC 1753 Humanistic and Experiential Theory and Therapy**
This course provides the students with the principles and techniques of the Humanistic and Experiential models of therapy with a focus on the work of Rogers, May, Bugental, Mahrer, Perls, Greenberg, and Gendlin. Humanistic psychotherapy is a broad classification that embraces a diverse ensemble of approaches including the philosophy of the existential perspective, and poses two basic questions: What does it mean to be fully, experientially human; and how does that understanding illuminate the vital or fulfilled life? This course includes both didactic and experiential approaches. Through video demonstrations, role-play, and structured exercises, students will practice and further develop their intervention skills within an experiential framework. There will be an emphasis on the importance of presence and intent for authentic in-depth communication with both clinical and non-clinical populations. Experiential learning is an important aspect of this course in the examination of the relation between concepts and experiencing at the edge of awareness, where language emerges from non-language.
3 credits
**PSYC 1775, 1776, 1777 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.
Each course 1-3 credits
Prerequisites: Approval of Program Director

**PSYC 1778 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.
3 credits
Prerequisites: Approval of Program Director

**PSYC 1882, 1884, 1886, 1888 Advanced Elective Practicum I, II, III, IV**
This elective practicum experience offers the opportunity to enhance the student’s skills in a particular area of interest.
Each course 3 credits

**PSYC 1883, 1885, 1887, 1889 Advanced Elective Practicum Seminar I, II, III, IV**
This seminar reviews the progress of students enrolled in the advanced elective practicum. Students meet to discuss training experiences.
Each course 1 credit

**ACADEMIC AND ADMINISTRATIVE POLICIES**

**Satisfactory Progress**
Once students have matriculated, they must be in continuous enrollment in the program until graduation. Credit hours can be earned during any academic quarter: fall, winter, spring, or summer. Student progress in the Psy.D. Program is evaluated at the conclusion of each quarter. The Program Student Academic Review Committee conducts the evaluation of student progress and students are provided feedback about their progress.

The academic standing of a student is determined by the student’s cumulative grade point average. A student enrolled in the Clinical Psychology Program must pass all courses with a minimum grade of B- or P and maintain a cumulative grade point average of 3.00 or higher to have achieved satisfactory 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 leave of absence, or academic dismissal, as described in the CHS Academic Policies section of the MWU Catalog.

**Extended Program**
For various reasons, a restructuring of a student’s academic course load may be necessary. Accordingly, an individual’s academic course load may be reduced so that the student enters what is termed an extended track repeat year program. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by the additional year. A student is placed on an extended program by the Academic Review Committee.

**FACULTY**

**Kiran Amin, Ph.D.**
McGill University
Professor

**Ruchi Bhargava, Ph.D.**
Gallaudet University
College of Liberal Arts, Sciences, and Technologies
Assistant Professor

**Angela M. Breitmeyer, Psy.D.**
Argosy University
Arizona School of Professional Psychology
Clinic Coordinator and Assistant Professor

**Melissa Flint, Psy.D.**
Argosy University
Arizona School of Professional Psychology
Internship Coordinator, Assistant Director of Clinical Training, and Assistant Professor

**Arthur Freeman, Ed.D., Sc.D., ABPP**
Babes-Bolyai University
International Institute for the Advanced Studies of Psychotherapy and Applied Mental Health
Program Director and Professor

**Shefali Gandhi, Psy.D.**
Argosy University
Arizona School of Professional Psychology
Assistant Professor

**Philinda Smith Hutchings, Ph.D., ABPP**
University of Kansas
College of Liberal Arts and Sciences
Director of Clinical Training and Professor

**Thomas B. Virden III, Ph.D.**
Western Michigan University
Associate Program Director and Professor
MISSION
The Midwestern University Physical Therapy Program will use the highest educational and professional standards to prepare entry-level physical therapists who can provide quality physical therapy services to a diverse population across all levels of the healthcare continuum.

Expected outcomes for the Program emphasize strengthening Program-community relationships by providing continuing professional development opportunities for practicing physical therapists, encouraging expertise in clinical practice, and enhancing the awareness and knowledge of the physical therapy profession among diverse communities.

ACCREDITATION
The Physical Therapy Program at Midwestern University, Glendale, is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; telephone: 703/706-3245; e-mail: accreditation@apta.org; website: http://www.capteonline.org.

Midwestern University is accredited by The Higher Learning Commission/A Commission of the North Central Association of Colleges and Schools (HLC/NCA), 230 South LaSalle Street, Suite 7-500, Chicago, Il 60604-1413; 312/263-0456.

DEGREE DESCRIPTION
Midwestern University’s Physical Therapy Program offers a course of study leading to the Doctor of Physical Therapy (D.P.T.) degree for qualified students. The full-time, continuous, 36-month, entry-level Doctor of Physical Therapy curriculum is designed to deliver the academic and clinical education required to prepare students for their professional role as key members of the healthcare team and as an integral part of the healthcare delivery system. The general education, professional training, experience, and personal character development of physical therapists uniquely prepare them to coordinate care related to functional improvement and functional ability. The clinical phase of the program provides the students with necessary hands-on experience to develop the knowledge, skills and attitudes essential to practice physical therapy in a variety of settings. All students will be required to travel for clinical education experiences. The focus of the professional clinical doctorate degree program is to prepare entry-level practitioners to provide physical therapy services in large, small, traditional, and nontraditional community and institutional practice settings that require independent judgment, leadership, and autonomous practice. The Program also provides the foundation for graduates to identify and contribute to effecting solutions to the major, emergent health issues of our society and to contribute to the academic and clinical education of future practitioners. The graduate will be prepared to make valuable, ongoing contributions to society, healthcare, and the profession through leadership activities and collaborative efforts with others in physical therapy and inter-professional education, practice, and research.

Time Limit for Completion of Coursework
The Doctor of Physical Therapy Program is a continuous, full-time program for 36 months. The maximum allotted time for completion of the doctorate program is 54 months.

Program Objectives
Upon completion of the Doctor of Physical Therapy Program, graduates are expected to be able to:

1. Become practitioners with the educational and clinical foundation needed to provide physical therapy services in all areas of practice and all physical therapy settings.
2. Apply critical thinking skills for independent judgment, clinical problem solving, leadership, and autonomous practice.
3. Demonstrate dedication to healthcare and community service by identifying and contributing effective solutions to the major emergent health issues of society and apply skills to meet other community needs.
4. Develop proficiency in teaching and scholarship through didactic and clinical education.
5. Exhibit sensitivity to cultural and social diversity.
6. Assume leadership positions in the healthcare delivery system, participate in local, state, and national professional organizations, and provide service to local communities.
7. Sustain continued professional development through lifelong learning activities.
8. Demonstrate professionalism during interactions with others.
9. Address prevention, wellness, and health promotion needs of individuals, groups, and communities in primary, secondary, and tertiary settings.
10. Enhance the breadth and depth of clinical education of future physical therapy students.

These objectives are accomplished through:

1. A curriculum model based on a conceptual framework of educational theory and practice with a spiraled approach in curricular design.
2. Correlation of events and problems that is experienced sequentially within the didactic curriculum and later through clinical experiences.
3. A strong content foundation in the physical, clinical, and behavioral sciences.
4. Critically applying scientific research and other forms of best evidence to improve practice and contribute to the body of knowledge.
5. Educational opportunities and activities that will enhance physical therapy services to underserved communities.
6. An educational environment that will emphasize leadership skills, professional and community service.
7. Acquiring information through clinical or basic science research.
8. Peer assessments, feedback and reflective communication skills.
9. A sequence of simulated and actual clinical experiences across the curriculum.
10. Opportunities for teamwork, delegation, supervision and teaching.

Admission Requirements
Students seeking admission to the Physical Therapy Program must submit the following documented evidence:

1. Completion of a bachelor's degree from a regionally accredited college or university.
2. Minimum cumulative grade point average (GPA) of 3.0 and a minimum science GPA of 2.9 on a 4.0 scale.
3. Completion of prerequisite courses totaling 44 semester/64 quarter credits as listed below from a regionally accredited college or university.
   - Grades of C or better (grades of C- are NOT acceptable) in each course.
4. Graduate Record Examination (GRE) general test scores using the Midwestern University institution code of 7600.
   - The test must have been taken no more than five years prior to the planned enrollment year.
   - For more information about the GRE, contact Educational Testing Services (ETS) at 609/771-7670 or 1-866-473-4373 or visit www.gre.org
5. Demonstration of a people or service orientation through community service or extracurricular activities.
6. Motivation for and commitment to healthcare as demonstrated by previous work, volunteer work, or other life experiences.
7. Oral and written communication skills necessary to interact with patients and colleagues.
8. Commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.
9. Passage of the Midwestern University criminal background check.
10. Provision of additional documentation needed to meet specific Program requirements.
11. It is required that applicants complete a minimum of 60 hours of observation in a physical therapy department. Ten hours must be in acute care and the remaining 50 hours must be distributed in at least two other practice environments that may include home health, outpatient/orthopedic and sports, rehabilitation, skilled nursing, or pediatrics.
Prerequisite Courses

<table>
<thead>
<tr>
<th>Science Courses</th>
<th>Sem. Hrs.</th>
<th>Qtr. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with lab</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Vertebrate Anatomy with lab</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Physiology</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>General Physics with lab</td>
<td>8</td>
<td>12</td>
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<table>
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<tr>
<th>General Courses</th>
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<tbody>
<tr>
<td>Math (college algebra or above)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statistics (should include inferential statistics)</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>English—must include at least one composition course (oral communication/public speaking recommended)</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (including at least one psychology course)</td>
<td>9</td>
<td>13</td>
</tr>
</tbody>
</table>

International Applicants

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Application Process and Deadlines

To be considered for admission to the Physical Therapy Program, applicants must submit the following to Midwestern University Office of Admissions.

1. PTCAS Application
   Applicants are required to submit their applications early to PTCAS at http://www.ptcas.org by December 15th. Please refer to the PTCAS application instructions for specific details about completing the application, required documents, and processing time. The PTCAS application should be available for applicants during the summer months. Due to the large number of applications and the limited number of seats available, applicants are strongly encouraged to complete their PTCAS application by December 15. Midwestern University operates on a rolling admissions basis where applications are reviewed throughout the admissions cycle.

2. Letters of Recommendation
   Applicants are required to submit a minimum of three letters of recommendation from professionals directly to PTCAS. It is preferred that one letter is written by a licensed physical therapist. The other letters can be written by any one of the following: prehealth advisory committee, prehealth advisor, or a college professor who knows the applicant well. The applicant should refer to the PTCAS application instructions for specific guidelines and requirements for submitting letters of recommendation.

3. GRE scores
   Applicants are required to submit official GRE general test scores directly to Midwestern University. The MWU institutional code for submitting scores is 7600. Only test scores earned during the previous five years and sent directly from the Educational Testing Service (ETS) will be accepted. The Office of Admissions must receive official GRE scores no later than February 15th.

4. Completed Applications
   The Office of Admissions will send letters verifying receipt of PTCAS applications with all required materials to all applicants who meet the minimum cumulative GPA requirement of 3.0. The letters will also include instructions on checking the status of the required application materials online. All applicants must also submit official GRE general test scores.
scores to Midwestern University to complete their applications. Applicants are responsible for tracking the receipt of their application materials and ensuring the submission of all required documents. Only applicants who submit completed applications with all required application materials by February 15th will be considered for potential entrance into the Program.

Please Note: Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or email address. All application withdrawal requests must be made in writing via e-mail, fax, or letter to:

Office of Admissions
Midwestern University
19955 N. 59th Avenue
Glendale, AZ 85308
888/247-9277 or 623/572-3215
admissaz@midwestern.edu

Interview and Selection Process
When applicants are considered eligible for interviews after review of their completed admissions files, they are notified of available interview dates and invited by the Office of Admissions to schedule an on-campus interview. A typical interview day involves participation in the following activities, which are coordinated by the Office of Admissions: an interview with at least two interviewers, lunch with current Midwestern University students, a campus tour, and an opportunity to meet with an admissions counselor and the financial aid office. During interview sessions, the interviewer questions applicants about their academic, personal, and professional aspirations and preparedness for admission to the Program. The interviewer rates prospective students on a standardized evaluation form. These evaluations are included in the applicant files provided to the Physical Therapy Admissions Committee. The Physical Therapy Admissions Committee meets periodically to review the files of applicants who have been interviewed. The Committee reviews the full application files for interviewed applicants and then formulates and submits recommendations to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants in writing of admission decisions.

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

Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks (for example, the Physical Therapy Program requires a candidate to be able to move at least 50 pounds vertically and horizontally).

4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.

5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean and Program Director, will identify and discuss what accommodations, if any, the College (/Program) would need to make that would allow the candidate to complete the curriculum. The College (/Program) is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.
Matriculation Process
The matriculation process begins after students receive notification of their acceptance. To complete the matriculation process, students must:

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

Reapplication Process
Students who receive either denial or end-of-cycle letters may reapply for the following year’s admissions cycle. Before reapplying, individuals contemplating reapplication should seek the advice of an admissions counselor.

To initiate the reapplication process, prospective students must complete and submit new applications and proceed through the standard application process.

EVALUATION OF STUDENT PERFORMANCE
Students in the Doctor of Physical Therapy Program are formally evaluated at appropriate intervals during the curriculum to assess and document satisfactory achievement of learning objectives and prescribed competencies. These evaluations occur on a regular basis at scheduled times during each course. Depending on the learning and competency outcomes objectives, these evaluations are designed to assess the level of knowledge, problem solving skills, psychomotor and clinical competencies and behavioral performances of students during each course and/or clinical experience. Students are graded on a numerical/alphabetical system using a standard grading scale, which is published in the College of Health Sciences section of the Midwestern University catalog. Students will be required to participate in competency-based evaluations at various intervals throughout their curriculum.

Evaluation of clinical skills occurs throughout various stages of the curriculum and includes progressive assessments performed in academic courses using simulated situations and patients. Evaluations of student performance during the clinical experiences will be formal and will use established criteria developed by physical therapy clinical and academic educators.

GRADUATION REQUIREMENTS
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 170-quarter credit hours for class of 2015 and 2016 and 170.5 for class of 2017.
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.
6. Complete all graduation clearance requirements as instructed by the Office of the Registrar.
Licensure Requirements
After graduating from an accredited physical therapist education program, a student must pass a national examination and meet licensure requirements of the state in which he or she wishes to practice. Graduation and degree conferral do not guarantee passing the national examination or passing the licensure requirements of the state.

Curriculum (Class of 2017)
The first academic year of the revised curriculum for the class of 2017 is four-quarters consisting of 60.5 required course credits (quarter hours). The second academic year of the curriculum is four-quarters consisting of 58 required course credits, including 480 clock-hours of clinical education. The third academic year of the curriculum is four-quarters consisting of 52 required course credits which includes two clinical experiences for a total of 960 clock-hours of clinical education. Certification by the American Heart Association in Basic Life Support (BLS) for Health Care Providers is required prior to any participation in clinical education/clinical observation. Clinical experiences take place in various facilities located throughout the continental United States that have a legal agreement with the University.

The MWU/CHS Physical Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.

Total Quarter Credits in the Professional Program: 170.5

First Professional Year: Applicable to Class of 2017
Total Quarter Credit Hours Required: 60.5

Summer Quarter
PTHE 1504 Foundations of Rehabilitation 5
PTHE 1511 Health Professionalism and Educational Principles 3
ANAT 1551 Human Anatomy and Embryology (with Gross Anatomy Lab) 7
Total 15

Fall Quarter
PTHE 1519 Musculoskeletal Pathology 3
PTHE 1574 Physical Therapy Evaluation 3
PTHE 1580 Kinesiology/Biomechanics I 4
PHYS 1571 Human Physiology I 4
CORE 1560 Interdisciplinary Healthcare 0.5
Total 14.5

Winter Quarter
PTHE 1541 Neuromuscular Rehabilitation I 6

Spring Quarter
PTHE 1581 Kinesiology/Biomechanics II 4
PTHE 1592 Acute Care Rehabilitation 4
CORE 1570 Interdisciplinary Healthcare 0.5
Total 14.5

Second Professional Year: Applicable to Class of 2017
Total Quarter Credit Hours Required: 58-59

Summer Quarter
PTHE 1606 Cardiopulmonary Rehabilitation 5
PTHE 1610 Clinical Competency Assessment I 3
PTHE 1636 Physical Agents 4
PTHE 1661 Musculoskeletal Rehabilitation II 5
Total 16.5

Fall Quarter
PTHE 1631 Evidence-Based Practice II 1
PTHE 1698 Full Time Clinical Experience 12
Total 13

Winter Quarter
PTHE 1632 Clinical Conditions and Differential Screening 4
PTHE 1642 Pediatric Rehabilitation 4
PTHE 1652 Physical Therapy Roles and Professional Issues 4
PHYS 1582 Human Physiology II 4
Total 16

Spring Quarter
PTHE 1649 Management & Reimbursement in Health Care Systems 3
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<td>PTHE 1672</td>
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**Third Professional Year: Applicable to Class of 2017**

Total Quarter Credit Hours Required: 52-53

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<td>PTHE 1761</td>
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<td>PTHE 1657</td>
<td>Essentials of Pharmacology for Physical Therapists</td>
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<td>PTHE 1635</td>
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**Curriculum (Class of 2015, 2016)**

The first academic year of the professional doctoral current curriculum for the class of 2015 and 2016 was four-quarters consisting of 63 required course credits (quarter hours). The second academic year of the curriculum is four-quarters consisting of 58 required course credits, including 520 clock-hours of clinical education. The third academic year of the curriculum is four-quarters consisting of 49 required course credits which includes two clinical experiences for a total of 800 clock-hours of clinical education. Certification by the American Heart Association in Basic Life Support (BLS) for Health Care Providers is required prior to any participation in clinical education/clinical observation. Clinical experiences take place in various facilities located throughout the continental United States that have a legal agreement with the University.

The MWU/CHS Physical Therapy Program reserves the right to alter its curriculum however and whenever it deems appropriate.
PTHE 1648 Management in Physical Therapy Systems 4
PTHE 1691 Physical Therapy Interventions IV 5

Total 13

Spring Quarter
PTHE 1603 Scholarship in Physical Therapy 1
PTHE 1697 Clinical Experience II 11

Total 12

Third Professional Year: Applicable to Class of 2015, 2016

Total Quarter Credit Hours Required: 49

Summer Quarter
PTHE 1700 Human Anatomy II 3
PTHE 1719 Pediatric and Geriatric Interventions 3
PTHE 1779 Applied Management Skills in Physical Therapy Systems 3
PTHE 1792 Physical Therapy Interventions V 3

Total 12

Fall Quarter
PTHE 1705 Clinical Problem Solving III 3
PTHE 1750 Health Promotion II 3
PTHE 1757 Prosthetics/Orthotics 3
PTHE 1770 Physical Therapy Roles and Professional Issues II 3

Total 12

Winter Quarter
PTHE 1771 Physical Therapy Roles and Professional Issues III 1
PTHE 1798 Clinical Experience III 11

Total 12

Spring Quarter
PTHE 1706 Scholarly Development in Physical Therapy 2
PTHE 1799 Clinical Experience IV 11

Total 13

**CORE COURSE DESCRIPTIONS**

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

**ANAT 1551 Human Anatomy and Embryology (with Gross Anatomy Lab)**

This course presents the anatomy of the human body and relevant embryological development in a lecture and laboratory format. The emphasis is on the relationship of form and function and the use of anatomy in physical diagnosis. Laboratory sessions include dissection of human cadavers. Student progress is evaluated through written and practical examination.

7 credits

**CORE 1560, 1570, 1580 Interdisciplinary Healthcare**

The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated.

Each course 0.5 credits

**PHYS 1571, 1582 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 underline the normal function of the various organs and organ systems. These core principles provide the foundation through which the student develops an understanding of health in physiologic terms and appreciation of diverse regulatory processes that maintain the homeostasis of the human body.

Each course 4 credits

**PTHE 1504 Foundations of Rehabilitation**

This course will introduce the students to the foundational concepts that will be used across practice settings in physical therapy. The International Classification of Functioning, Disability and Health, the Physical Stress Theory, and Staging for Rehabilitation will be introduced and students will learn to use these concepts as a framework for clinical decisions. Students will also understand the structure, function, mechanical properties and repair phases of skin, bone, ligaments, tendons, skeletal muscle, cartilage and peripheral nerves.

5 credits
PTHE 1511 Health Professionalism and Educational Principles
This course explores professionalism in physical therapy practice. Students will gain knowledge about the attributes of a profession, professional association positions and policies, principles of ethics, ethical codes, benefits of professional association membership, and professional development. Students will explore the role of the health care professional in education and learn goal setting, writing behavioral objectives and determining instructional strategies. 3 credits

PTHE 1519 Musculoskeletal Pathology
Students are introduced to the general pathology, pathophysiology, epidemiology and clinical signs and symptoms of both acquired and hereditary musculoskeletal pathologies and disorders. Diagnostic imaging, laboratory values and medical and pharmaceutical management will be reviewed. Evidenced based evaluation and treatment strategies for both conservative and post-surgical physical therapy management will be emphasized. Case studies for classroom and group discussions will facilitate learning and encourage clinical reasoning and decision making. 3 credits
Prerequisites: PTHE 1504 Foundations of Rehabilitation; ANAT 1551 Human Anatomy and Embryology

PTHE 1531 Evidence-Based Practice I
This course is designed to provide students with foundational knowledge and skills needed to provide evidence-based patient care. This course covers research ethics, study design, formulation of research questions and hypotheses, types of data, sampling methodology, statistics, measurement, variables, interpretation of research findings, and the five steps of the evidence-based practice process. 3 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation; PTHE 1592 Acute Care Rehabilitation

PTHE 1540 Biopsychosocial Issues
This course prepares students to recognize and respond with sensitivity to the biopsychosocial needs of patients, families and others during professional interactions. Students learn how to screen for issues such as anxiety, malingering, substance abuse, suicide risk, depression, emotional and physical abuse and appropriate referral patterns for each condition. Students also learn about psychological and psychiatric conditions that may impact patient/client management. 3 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation

PTHE 1541 Neuromuscular Rehabilitation I
This course addresses the neuroscience of the human nervous system with emphasis on neuroanatomy and physiology, pathological conditions, basic pharmacotherapeutic management, basic diagnostic imaging, and physical therapy examination of human nervous system function. Students will correlate nervous system lesions with neurological deficits/dysfunction seen in clinical practice as illustrated with neurological examination results. 6 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation; ANAT 1551 Human Anatomy and Embryology; PHYS 1571 Human Physiology I

PTHE 1542 Neuromuscular Rehabilitation II
This course addresses the pathology, prognoses, pharmacotherapeutics, examination and evaluation of body structure and function impairments, activity limitations, and participation restrictions for individuals experiencing stroke, multiple sclerosis, and basal ganglia dysfunction. Students are presented standardized examination tools, outcome measures, movement analysis strategies, and motor learning principles. Appropriate intervention strategies and tactics will be presented, as well as intervention progression. 5 credits
Prerequisites: PTHE 1541 Neuromuscular Rehabilitation I

PTHE 1561 Musculoskeletal Rehabilitation I
This course introduces students to evidence-based evaluation and treatment methods for pathologies of the cervical and thoracic spine and upper extremities. Patient evaluation will include differential diagnosis, classification systems, test item clusters and staging for rehabilitation to influence clinical decision making. Implications of imaging and medical management are discussed. Interventions include manual therapy, therapeutic exercise and patient education. Emphasis is on common conditions encountered in orthopedic physical therapy. 5 credits
Prerequisites: PTHE 1519 Musculoskeletal Pathology; PTHE 1574 Physical Therapy Evaluation; PTHE 1581 Kinesiology/Biomechanics II

PTHE 1574 Physical Therapy Evaluation
This course introduces theoretical frameworks for clinical problem solving and develops students’ ability to address a patient’s primary concerns at the level of the whole person. Components of the International Classification of Functioning Disability and Health (ICF), and Patient-Client Management models are introduced to assist with gathering patient history to formulate hypotheses to direct planning of the physical examination, and development of physical therapy diagnosis, prognosis, goals, plan of care, and outcome measures. 3 credits
Prerequisites: PTHE 1504 Foundations of Rehabilitation; ANAT 1551 Human Anatomy and Embryology

PTHE 1580 Kinesiology/Biomechanics I
Physical therapists must understand the biomechanics of normal movement and the pathomechanics of the
PTHE 1581 Kinesiology/Biomechanics II
This course is a continuation of Kinesiology/Biomechanics I. Students will apply biomechanical principles to the structure and function of joints of the lower quadrant. The biomechanical principles of gait and posture will be presented, and students will learn to identify normal and abnormal posture and normal gait. Students will assess the static posture and movement patterns of all joints in the lower quadrant and will measure range of motion at each of the joints and test the strength of the muscles surrounding the joint.
4 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation; PTHE 1580 Kinesiology/Biomechanics I

PTHE 1592 Acute Care Rehabilitation
Students will be introduced to and learn the basic concepts of physical therapy evaluation and intervention in the acute care setting. Topics include: modifying a subjective history, special considerations for examination, assessing a patient’s ability to care for oneself, and intervention planning and goal setting in the acute care setting. Students will learn to assess basic mobility and then prescribe assistive devices and/or transfer techniques as appropriate, and will learn the importance of infection control and how to adhere to universal precautions.
4 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation; PHYS 1571 Human Physiology I

PTHE 1602 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 subjective interviews, tests and measures including formal functional outcome assessments, forming physical therapy diagnosis and developing an intervention plan as applied to patients with musculoskeletal conditions. Students will be expected to describe their clinical reasoning process for comprehensive patient management.
2 credits
Prerequisites: PTHE 1501 Clinical Problem Solving I; PTHE 1525 Clinical Conditions I; PTHE 1580,1581 Kinesiology/Biomechanics I, II

PTHE 1603 Scholarship in Physical Therapy
This course will provide the opportunity for the student to complete a written report that will illustrate the use of evidence-based practice for a client that will be managed during the student’s Clinical Experience II.
1 credit
Prerequisites: PTHE 1530 Research; PTHE 1570 Physical Therapy Roles and Professional Issues I; concurrent enrollment with PTHE 1697 Clinical Experience II

PTHE 1604 Clinical Conditions III
This course provides students with the knowledge and skills to evaluate and treat clients with cardiopulmonary disorders. The level of evidence for various techniques, the effect of exercise on the cardiopulmonary system, exercise prescription, and indications for physical therapy are discussed.
4 credits
Prerequisites: PTHE 1637 Exercise Physiology; PTHE 1576 Physical Therapy Evaluation II; PTHE 1626 Clinical Conditions II; PTHE 1690 Physical Therapy Interventions III

PTHE 1606 Cardiopulmonary Rehabilitation
This course provides students with knowledge and skills to evaluate and treat clients with cardiopulmonary disorders. Cardiopulmonary pathology and pathophysiology, pharmacotherapeutics and other medical management of the cardiopulmonary system are presented. The effect of exercise on the cardiopulmonary system, exercise prescription, and indications for physical therapy are discussed. Students will integrate this information to formulate individualized plans for management of patients with cardiopulmonary disorders.
5 credits
Prerequisites: PTHE 1592 Acute Care Rehabilitation; PHYS 1571 Human Physiology I

PTHE 1610 Clinical Competency Assessment I
Clinical Competency Assessment I is the first of two courses to assess student preparation for clinical practice. Prior to the student’s first full time supervised clinical experience, student skills in communication, time management, patient evaluation, infection control/standard precautions, and mobility training in a simulated physical therapy practice environment with simulated patients are evaluated. Content will cover jurisdical law and self-assessment skills.
3 credits
Prerequisites: Satisfactory completion of all coursework in the first professional year

PTHE 1611 Simulated Physical Therapy Clinic II
Simulated Physical Therapy Clinic II is the second of two courses in the Simulated Physical Therapy Clinic series. Prior to ten weeks full-time supervised clinical practice in a health care environment, student patient management skills, safety, professional behavior, communication, clinical reasoning, and
documentation related to a simulated patient encounter are evaluated by faculty.
1 credit

PTHE 1626 Clinical Conditions II
Students are introduced to the general pathology, pathophysiology, patho-anatomics, epidemiology, medical management, clinical signs and symptoms, and the role of physical therapy in both acquired and hereditary musculoskeletal pathologies and disorders. Clinical evaluation and significance of diagnostic imaging and other laboratory values and indices will be applied. Evidenced based evaluation and treatment strategies for both conservative and postsurgical physical therapy management will be presented and discussed.
3 credits
Prerequisites: PTHE 1525 Clinical Conditions I

PTHE 1631 Evidence-Based Practice II
Students will develop a relevant clinical question related to a specific condition for a patient managed during PTHE 1698 Clinical Experience I. The clinical question developed by the learner will focus on a target population, an intervention, compare alternative treatments, and state expected outcomes. Students will access literature and find evidence to guide their intervention selection for approved clinical questions. Learners will write a paper summarizing their findings from peer-reviewed literature.
1 credit
Prerequisites: PTHE 1531 Evidence-Based Practice I; concurrent enrollment in PTHE 1698 Full Time Clinical Experience

PTHE 1632 Clinical Conditions and Differential Screening
Students are introduced to the general patho-physiology, epidemiology and clinical signs and symptoms associated with pathology of the visceral organs and bodily systems. Students will recognize key signs and symptoms suggestive of non-musculoskeletal pathology including physical examination procedures to assess for visceral sources of pain. The role of physical therapy and pharmaceutical interventions will be discussed. Faculty will provide case reports to facilitate clinical reasoning and the application of didactic learning to real case scenarios.
4 credits
Prerequisites: PTHE 1661 Musculoskeletal Rehabilitation II; PHYS 1571 Human Physiology I

PTHE 1634 Physical Agents I
This course addresses theoretical principles of physiological changes that occur as a result of the application of thermotherapeutic, cryotherapeutic, hydrotherapeutic, electrotherapeutic and therapeutic application of traction and compression pumps. Students will develop skills in application of these modalities and will study the normal and abnormal responses of tissue following the application of these modalities.
4 credits
Prerequisites: PHYS 1582 Human Physiology II; PTHE 1517 Life Span Human Development; PTHE 1590 Physical Therapy Interventions I; PTHE 1591 Physical Therapy Interventions II; PTHE 1690 Physical Therapy Interventions III; PTHE 1673 Applied Neuroscience; PTHE 1675 Physical Therapy Evaluation III; and concurrent enrollment in PTHE 1602 Clinical Problem Solving II

PTHE 1635 Physical Agents II
This course will focus on the response of the integumentary system to disease, injury, and aging. Emphasis on wound management, burn rehabilitation, and rehabilitation of persons with acute/chronic integumentary conditions will be addressed. Advanced concepts in the use of physical agents for wound management will be presented.
3 credits
Prerequisites: PTHE 1634 Physical Agents I

PTHE 1636 Physical Agents
This course addresses theoretical principles of underlying physiological changes that occur in response to the application of thermotherapeutic, cryotherapeutic, hydrotherapeutic as well as traction and compression. Students will learn the principles of electrotherapy when used for muscle strengthening, improved function and pain management. Students will develop skills in application of these modalities and will study the normal and abnormal responses of tissue following the application of these modalities.
4 credits
Prerequisites: PTHE 1581 Kinesiology/Biomechanics II; PHYS 1571 Human Physiology I

PTHE 1637 Exercise Physiology
Physiologic factors relevant to responses and adaptations to exercise across the life span are presented. Analysis of the metabolic, cardiorespiratory, and musculoskeletal systems to prescribe and modify exercise is emphasized. Laboratory experiences are utilized to facilitate integration of principles of exercise physiology with clinical practice.
3 credits
Prerequisites: PHYS 1571, 1582 Human Physiology I, II

PTHE 1640 Biopsychosocial Issues
This course prepares students to recognize and respond with sensitivity 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, family and society. The course explores the various theories and models that underlie the biopsychosocial model. These models include Cognitive Theory and Therapy, Maslow's
Hierarchy of Needs, theories of needs, beliefs and values.  
3 credits

**PTHE 1642 Pediatric Rehabilitation**  
This course introduces principles of physical therapy practice applied to the pediatric population. Students will learn clinical decision making skills for the examination/evaluation process. The course also consists of evidence-based intervention strategies, including how to evaluate and implement use of adaptive equipment and orthotic devices. Students will learn about the practice of pediatric physical therapy in a variety of settings, such as the neonatal intensive care unit, educational settings, acute care, home care and outpatient clinics.  
4 credits  
Prerequisites: PTHE 1542 Neuromuscular Rehabilitation II

**PTHE 1648 Management in Physical Therapy Systems**  
This course will develop the knowledge and critical thinking skills required for students to evaluate and apply management concepts to the current health care environment. This course will develop the student’s ability to effectively serve in patient/client management and administrative roles. Specific course content includes professional development, case management, time management, organizational infrastructure and delivery systems, reimbursement and payment models, risk management, outcomes and quality improvement/assurance.  
4 credits  
Prerequisites: PTHE 1570 Physical Therapy Roles and Professional Issues I; PTHE 1696 Clinical Experience I

**PTHE 1649 Management & Reimbursement in Health Care Systems**  
This course will develop the knowledge and skills required for patient/client management within the various healthcare reimbursement systems. Payment models will be analyzed for their impact on patient services, interprofessional care delivery, organizational operations, major stakeholders, and relationship to legal and ethical decision making. Topics of outcome based quality improvement/assurance processes, risk management, coding, and case/utilization management are highlighted. Leadership and professional development is emphasized.  
3 credits  
Prerequisites: PTHE 1652 Physical Therapy Roles and Professional Issues

**PTHE 1652 Physical Therapy Roles and Professional Issues**  
This course explores a variety of professional issues highlighting the five roles of the physical therapist (PT) and the principles and structure of the healthcare delivery system. Relevant issues in PT practice and health policy are discussed, analyzed, and debated. Concepts of access, cost, and quality in addition to healthcare regulation, legislative processes, and third party payer concepts are explored. Privacy, consent, and discrimination laws as well as ethical principles and theories will be applied to professional scenarios.  
4 credits  
Prerequisites: PTHE 1511 Health Professionalism and Educational Principles

**PTHE 1655 Advanced Educational Principles for Physical Therapists**  
This course provides the foundation for systematically designing, implementing, and evaluating learning experiences used in the education of patients, students, colleagues, community members, and self. Students will learn about the role of the health care professional in education. Principles of learning, teaching, goal setting, writing behavioral objectives, instructional strategies, strategies for group facilitation, patient and family education, and teaching in both the clinical and academic settings will be discussed.  
2 credits  
Prerequisites: PTHE 1511 Health Professionalism and Educational Principles

**PTHE 1657 Essentials of Pharmacology for Physical Therapists**  
This course will introduce physical therapy students to pharmacological intervention in patient/client management. The impact that pharmaceuticals have on physical therapy as well as the impact that physical therapy intervention may have on drug metabolism is highlighted. The course will describe basic pharmacodynamics and pharmacokinetics, identify general categories of drugs affecting individual body systems and explore potential interactions of physical therapy treatments and pharmacokinetics.  
2 credits  
Prerequisites: PHYS 1571,1582 Human Physiology I, II; PTHE 1525,1626 Clinical Conditions I, II; PTHE 1573 Human Neuroscience; PTHE 1673 Applied Neuroscience

**PTHE 1661 Musculoskeletal Rehabilitation II**  
This course is a continuation of principles and skills acquired in PTHE 1561. Students learn to evaluate and treat musculoskeletal disorders of the thoracic and lumbar spine, pelvis, hip, knee, ankle, and foot. Pharmacological and medical management of these disorders are covered. Students refine their ability to complete a thorough subjective history, plan the physical examination, and provide interventions for persons with primary musculoskeletal and neuromuscular disorders.  
5 credits  
Prerequisites: PTHE 1561 Musculoskeletal Rehabilitation I

**PTHE 1672 Integumentary Rehabilitation**  
This course will explore the response of the integumentary system to disease, injury, and aging. The pathophysiology of integumentary diseases/conditions as well as the pharmacological and non-pharmacological medical management of these conditions will be covered. Emphasis will be on the evaluation and physical therapy interventions...
for wound management, burn rehabilitation, and rehabilitation of persons with acute/chronic integument conditions.

3 credits
Prerequisites: PTHE 1574 Physical Therapy Evaluation; PTHE 1636 Physical Agents

PTHE 1673 Applied Neuroscience
This course is a continuation of the study of human neuroscience with an emphasis on pathological conditions and physical therapy clinical applications.
3 credits
Prerequisites: PHYS 1571,1582 Human Physiology I, II; ANAT 1551 Human Anatomy I/Embryology; PTHE 1573 Human Neuroscience

PTHE 1675 Physical Therapy Evaluation III
Course addresses the examination and evaluation of body structure and function impairments, activity limitations, and participation restrictions of children and adults with neurological dysfunction. Students are introduced to various standardized examination tools and outcome measures.
3 credits
Prerequisites: PTHE 1517 Life Span Human Development; PTHE 1626 Clinical Conditions II; PTHE 1576 Physical Therapy Evaluation II; PTHE 1581 Kinesiology/Biomechanics II; PTHE 1673 Applied Neuroscience

PTHE 1678 Geriatric Rehabilitation
This course will focus on physical therapy management of well and medically complex older adults incorporating evidence-based practice and knowledge of lifespan development into clinical decision making. Emphasis is placed on the selection of screening, examination, and outcome measurement tools, determination of medical necessity and prognosis, care coordination and plan of care development. Additional emphasis is placed on prevention & wellness, differentiating normal and abnormal aging, and the selection, progression, and modification of interventions.
4 credits
Prerequisites: PTHE 1542 Neuromuscular Rehabilitation II; PTHE 1606 Cardiopulmonary Rehabilitation; PTHE 1642 Pediatric Rehabilitation; PTHE 1661 Musculoskeletal Rehabilitation II

PTHE 1690 Physical Therapy Interventions III
This course builds on the principles of exercise theory introduced in Physical Therapy Interventions II. Exercise principles commonly utilized within the clinical environment will be presented and demonstrated. Proprioceptive Neuromuscular Facilitation (PNF) will be introduced. Students will learn how to develop and implement an exercise program for individuals across the life span. Clinical conditions and impairments affecting performance will be discussed as they relate to physical therapy intervention.
3 credits
Prerequisites: PTHE 1517 Life Span Human Development; PTHE 1576 Physical Therapy Evaluation II; PTHE 1581 Kinesiology/Biomechanics II; PTHE 1573 Human Neuroscience

PTHE 1691 Physical Therapy Interventions IV
This course focuses on the design, implementation, and evaluation of comprehensive treatment plans for adult and pediatric patients with neurological dysfunction. General as well as pathology specific intervention strategies and tactics are addressed.
5 credits
Prerequisites: PTHE 1517 Life Span Human Development; PTHE 1581 Kinesiology/Biomechanics II; PTHE 1602 Clinical Problem Solving II; PTHE 1626 Clinical Conditions II; PTHE 1673 Applied Neuroscience; PTHE 1675 Physical Therapy Evaluation III; PTHE 1690 Physical Therapy Interventions III

PTHE 1696 Clinical Experience I
Upon completion of all coursework through spring quarter of the first professional year, students participate in a three-week, full-time, supervised clinical experience. Students practice patient management under the direct supervision of an experienced physical therapist. Students practice skills in communication, patient evaluation/management, infection control/standard precautions, and patient education. Students will also practice a variety of professional skills critical to professional development. Minimum GPA requirements apply.
3 credits

PTHE 1697 Clinical Experience II
Upon completion of all coursework in the winter quarter of the second professional year, students practice patient management skills under the direct supervision of an experienced physical therapist. Students perform patient examination, the interpretation of examination results, determine a physical therapy diagnosis and prognosis, design and safely implement a plan of care, and evaluate patient outcomes. Minimum GPA requirements apply.
11 credits

PTHE 1698 Full Time Clinical Experience
Upon completion of all coursework through summer quarter of the second professional year, students participate in twelve weeks of full-time, supervised clinical practice in the clinical environment. Students perform patient examination, evaluation and interpretation of examination results, determine a physical therapy diagnosis and prognosis, design and safely implement a plan of care, and evaluate patient outcomes. Students will also practice a variety of skills critical to professional development. Minimum GPA requirements apply.
12 credits

202
PTHE 1700 Human Anatomy II
This course will examine in detail the anatomical joint structures of the extremities and trunk. Muscles, joint structure and function, nerves, tissue and relationship to joint movement will be emphasized. Information about these structures and their function will be applied to surgical and clinical issues that relate to physical therapy intervention and management. Self-directed learning is an expectation of this course.
3 credits
Prerequisites: ANAT 1551 Human Anatomy I/Embryology; PTHE 1580,1581 Kinesiology/Biomechanics I, II; PTHE 1575,1576, 1675 Physical Therapy Evaluation I, II, III; PTHE 1590, 1591, 1690, 1691 Physical Therapy Interventions I, II, III, IV

PTHE 1704 Clinical Decision Making in Complex Cases
This course reinforces and enhances clinical decision-making skills for complex patient cases. The Patient-Client Management and International Classification of Functioning, Disability and Health Models are used to address patients with complex multisystem impairments. Students refine their ability to self-assess, formulate hypotheses, select outcome measurement tools, and structure a physical examination from subjective interview data. Learners evaluate objective examination findings to determine a plan for patient management.
3 credits
Prerequisites: PTHE 1606 Cardiopulmonary Rehabilitation; PTHE 1632 Clinical Conditions and Differential Screening; PTHE 1672 Integumentary Rehabilitation; PTHE 1682 Geriatric Rehabilitation; PTHE 1761 Musculoskeletal Rehabilitation III

PTHE 1705 Clinical Problem Solving III
This course is designed to reinforce and enhance the reasoning process used to make clinical decisions. In this course, clinical problem solving and patient management decisions focus on children and adults with neurologic, cardiopulmonary, integumentary or musculoskeletal dysfunction. The course format emphasizes efficient use of evidence-based practice within the context of clinical physical therapy practice. The course includes a combination of independent study, group discussions, student projects, and individual rationale defense through case study documentation assignments.
3 credits
Prerequisites: PTHE 1501,1602 Clinical Problem Solving I, II; PTHE 1675 Physical Therapy Evaluation III; PTHE 1691 Physical Therapy Interventions IV; PTHE 1573 Human Neuroscience; PTHE 1530 Research

PTHE 1706 Scholarly Development in Physical Therapy
This course is the culmination of the group research project initiated and nurtured in two prior courses: PTHE 1530 Research and PTHE 1603 Scholarship in Physical Therapy. This course will focus on class presentation of completed research projects.
2 credits
Prerequisites: PTHE 1530 Research; PTHE 1570 Physical Therapy Roles and Professional Issues I; PTHE 1603 Scholarship in Physical Therapy

PTHE 1710 Clinical Competency Assessment II
Clinical Competency Assessment II is the second of two courses assessing student preparation for clinical practice. Prior to twelve weeks of full-time supervised clinical practice in a health care environment, student patient management skills, safety, professional behavior, communication, clinical reasoning, and documentation related to a simulated patient encounter are evaluated.
3 credits
Prerequisites: Satisfactory completion of all coursework in the first and second professional years

PTHE 1719 Pediatric and Geriatric Interventions
This course introduces principles of physical therapy practice as applied to older adults and children. This course will focus on comprehensive physical therapy management of children and older adults incorporating evidence-based practice, critical decision making, and service delivery across the continuum of healthcare. Adult and neonatal intensive care unit, early intervention and educational settings, geriatric rehabilitation/care settings, and issues related to legislation and reimbursement will be applied to outcomes measures and patient management plans.
3 credits
Prerequisites: PTHE 1517 Life Span Human Development

PTHE 1725 Health Promotion and Wellness in Physical Therapy
Physical therapists have a role in the prevention of disease and injury as well and promotion of health and wellness to individuals and communities. In this course students will use their ability to identify risk factors for disease and illness in patients and communities and design strategies to reduce risk or the negative effects of a disease or injury. This class will also include exercise testing and prescription for health promotion and injury prevention. A community service project will be included in this course.
3 credits
Prerequisites: PTHE 1606 Cardiopulmonary Rehabilitation; PTHE 1682 Geriatric Rehabilitation

PTHE 1731 Evidence-Based Practice III
Each student completes a written report illustrating the use of evidence-based practice for a client being managed by the student in PTHE 1796 Clinical Internship 1. The report must demonstrate the student’s ability to document the examination findings for a patient case, apply information from the research literature to the treatment of a patient and report on the outcomes for a patient.
1 credit
Prerequisites: PTHE 1631 Evidence-Based Practice II; concurrent enrollment in PTHE 1796 Clinical Internship I

PTHE 1732 Evidence-Based Practice IV
Students will create a poster and write an abstract to supplement an oral presentation regarding the project completed in Evidence-Based Practice III. This capstone assignment will symbolize student application of evidence-based practice process and clinical decision making. This project will demonstrate the student’s ability to critically examine and question current practice patterns and to disseminate the information in a professional manner.
1 credit
Prerequisites: PTHE 1731 Evidence-Based Practice III; concurrent enrollment in PTHE 1797 Clinical Internship II

PTHE 1743 Neuromuscular Rehabilitation III
Course addresses the pathology, pharmacotherapeutics, examination and evaluation of body structure and function impairments, activity limitations, and participation restrictions for individuals experiencing spinal cord injury, traumatic brain injury, vestibular dysfunction, and cerebellar dysfunction. Students are presented standardized examination tools, outcome measures, and appropriate intervention strategies, tactics, and progression.
5 credits
Prerequisites: PTHE 1542 Neuromuscular Rehabilitation II

PTHE 1750 Health Promotion II
This is the second of a two-course series focusing on wellness and prevention. In this course, students will have the opportunity to apply principles presented in Health Promotion I, as well as appropriate principles of teaching and learning presented in Educational Principles for Physical Therapists. 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.
3 credits
Prerequisites: PTHE 1550 Health Promotion I; PTHE 1560 Educational Principles for Physical Therapists

PTHE 1751 Physical Therapy Management of Special Populations
Physical therapists must understand the unique circumstances that are created by certain pathologies. In this course, students learn considerations for the medical and physical therapy evaluation and treatment for special populations such as: individuals with cancer, lymphedema, pelvic floor dysfunction, fibromyalgia, complex regional pain syndrome, and chronic disabilities. Pharmacological interventions and their implications in these pathologies and physical therapy will be discussed.
2 credits

Prerequisites: PTHE 1574 Physical Therapy Evaluation; PTHE 1581 Kinesiology/Biomechanics II; PTHE 1632 Clinical Conditions and Differential Screening; PHYS 1582 Human Physiology II

PTHE 1757 Prosthetics/Orthotics
This course introduces students to the need for and use of upper and lower extremity prosthetics and orthotics. Components, materials, design, fitting, alignment, prescription, training, and total patient management are discussed. Emphasis is placed on lower extremity prostheses. The use of orthoses for the upper extremity, lower extremity, and spine are also introduced. Course material will address components of orthotics, materials used in fabrication of orthotics, design, fitting, alignment, prescription, and training as related to physical therapist patient management.
3 credits
Prerequisites: PTHE 1542 Neuromuscular Rehabilitation II; PTHE 1581 Kinesiology/Biomechanics II; PTHE 1632 Clinical Conditions and Differential Screening; PTHE 1672 Integumentary Rehabilitation; PTHE 1761 Musculoskeletal Rehabilitation III

PTHE 1761 Musculoskeletal Rehabilitation III
Students are introduced to advanced treatment techniques of joint and soft tissue manipulation and neural tissue mobilization. Students will utilize the clinical decision making model and contraindications in determining the appropriate and judicious use of these treatment techniques. Cadaver dissections emphasize joint structure, muscles, fascia and nerves and their relationship to movement and function will be applied. Students learn principles and components of workplace ergonomics, work hardening programs and Functional Capacity Evaluations.
4 credits
Prerequisites: PTHE 1661 Musculoskeletal Rehabilitation II

PTHE 1770 Physical Therapy Roles and Professional Issues II
This is the second of three courses which expands upon the student’s understanding of the roles of the physical therapist and contemporary practice issues. The impact of a variety of professional issues such as healthcare policy, ethics, reimbursement, socialized medicine, technology, and APTA initiatives on healthcare service delivery and physical therapy practice are discussed, analyzed and debated. Issues related to the transition from a professional preparation program to clinical practice are included.
3 credits
Prerequisites: PTHE 1570 Physical Therapy Roles and Professional Issues I; PTHE 1560 Educational Principles for Physical Therapists; PTHE 1648 Management in Physical Therapy Systems; PTHE 1779 Applied Management in Physical Therapy Systems; PTHE 1696, 1697 Clinical Experience I, II

PTHE 1771 Physical Therapy Roles and Professional Issues III
This course illustrates the student’s understanding of the role of the physical therapist in contemporary clinical practice. Each student completes a written case report, based on a
client he/she managed during Clinical Experience III, which illustrates all the parts of the patient/client management model and multiple examples of evidence-based practice.

Prerequisites: PTHE 1697, 1798 Clinical Experience II, III

**PTHE 1778 Administration in Health Care Systems**

Today’s healthcare environment requires the business acumen to plan, organize, and manage human, technical, environmental, and financial resources effectively and efficiently. Students will have the opportunity to create a business proposal for a new rehabilitation service line or business. Employment and contract law, organizational management, feasibility studies and strategic planning, marketing, consulting, and business ethics will be explored. Professional development and effective oral/written communication in preparation for employment are emphasized.

3 credits

Prerequisites: PTHE 1649 Management and Reimbursement in Physical Therapy Systems

**PTHE 1779 Applied Management Skills in Physical Therapy Systems**

As they enter the work force, physical therapists need the ability to apply management skills. 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 is structured around the development of a strategic plan and budget proposal for a rehabilitation service line or business start-up. Concepts related to personnel and accounting regulations, contract law, consultation, sales and marketing, legal and ethical issues will be analyzed.

3 credits

Prerequisites: PTHE 1648 Management in Physical Therapy Systems

**PTHE 1792 Physical Therapy Interventions V**

Physical therapy assessment and interventions are addressed in the areas of home health, occupational health, aquatics, lymphedema, chronic pain, pregnancy, and pelvic floor dysfunction. Unique treatment approaches are examined from the perspective of evidence-based practice.

3 credits

Prerequisites: PTHE 1575, 1576, 1675 Physical Therapy Evaluation I, II, III; PTHE 1590, 1591, 1690, 1691 Physical Therapy Interventions I, II, III, IV; PTHE 1604 Clinical Conditions III

**PTHE 1796 Clinical Internship I**

Upon completion of all coursework through fall quarter of the third professional year, students participate in twelve weeks of full-time, supervised clinical practice to refine patient/client management skills and professional behaviors. Students apply the process of clinical problem solving in the evaluation and treatment of patients/clients, display appropriate professional attitudes and behaviors, and effectively integrate current research into the clinical decision making process. Minimum GPA requirements apply.

11 credits

**PTHE 1797 Clinical Internship 2**

Upon completion of all coursework through winter quarter of the third professional year, students participate in twelve weeks of full-time, supervised clinical practice to refine patient/client management skills and professional behaviors. Students apply the process of clinical problem solving in the evaluation and treatment of patients/clients, display appropriate professional attitudes and behaviors, and effectively integrate current research into the clinical decision making process. Minimum GPA requirements apply.

12 credits

**PTHE 1798 Clinical Experience III**

Upon completion of all coursework in the fall quarter of the third professional year, students participate in a ten-week, full-time, supervised clinical experience. Students practice patient management skills, perform examination, interpret examination results, determine a physical therapy diagnosis and prognosis, design and safely implement a plan of care, perform interventions, and evaluate patient outcomes. Students will also practice a variety of professional skills critical to professional development. Minimum GPA requirements apply.

11 credits

**PTHE 1799 Clinical Experience IV**

Upon completion of all coursework in the winter quarter of the third professional year, students participate in a ten-week, full-time, supervised clinical experience. Students practice patient management skills, perform examination, interpret examination results, determine a physical therapy diagnosis and prognosis, design and safely implement a plan of care, perform interventions, and evaluate patient outcomes. Students will also practice a variety of professional skills critical to professional development. Minimum GPA requirements apply.

11 credits

**Elective Course Description**

**PTHE 1300 Advanced Physical Therapy Practice Electives**

This course will expand upon the basic introduction to standardized measurement provided in several courses.

1-3 credits

Prerequisites: Successful completion of all PT Program courses through the spring quarter of the second year.

**PTHE 1301 Research Elective I**

In this elective course, students have the opportunity to assist physical therapy faculty with research projects pertaining to
the faculty member’s research agenda. Students obtain individual faculty member approval to assist with research prior to enrollment in this course.

1 credit
Prerequisites: PTHE 1531 Evidence-Based Practice I

**PTHE 1302 Research Elective II**

Students who have successfully completed PTHE 1301 Research Elective I may have the opportunity to continue working on a research project with a physical therapy faculty member. Students obtain individual faculty member approval to assist with research prior to enrollment in this course.

1 credit
Prerequisites: PTHE 1301 Research Elective I

**STUDENT ACADEMIC POLICIES**

**Academic Progress**
The academic standing of a student is determined by the student’s cumulative grade point average. To progress to the next quarter, a student must satisfactorily complete all didactic courses and academic requirements for the preceding quarter.

**FACULTY**

**Erin Appelt, PT, D.P.T., OCS**
Creighton University
Assistant Professor

**Debbie Bierwas, PT, D.P.T., DHSc**
Russell Sage College
Director of Clinical Education and Assistant Professor

**Steven C. Fehrer, PT, Ph.D.**
Arcadia University
Associate Professor

**Craig P. Goldberg, PT, D.P.T., OCS, FAAOMPT**
University of St. Augustine
Assistant Professor

**David J. Lorello, PT, D.P.T.**
University of Minnesota
Instructor

**Robert Nithman, PT, D.P.T., GCS, COS-C**
Duquesne University
Assistant Professor

**Jodi Thomas, PT, D.P.T.**
Duke University
Assistant Director of Clinical Education and Instructor

**Kimberly Varnado, PT, D.P.T., OCS, FAAOMPT**
Indiana University
Assistant Professor

**Judy Woehrle, PT, Ph.D., OCS**
St. Louis University
Director and Associate Professor
MISSION
The mission of the Midwestern University College of Dental Medicine-Arizona is to graduate well-qualified general dentists and to improve oral health through research, scholarly activity, and service to the public.

CORE VALUES
In pursuit of its mission, the CDMA is guided by this set of abiding and unchanging core values:

- Maintaining a student-friendly environment
- Promoting ethics and professionalism
- Encouraging broad and encompassing diversity
- Advocating collegiality and teamwork
- Integrating multidisciplinary coursework
- Focusing on a general dentistry curriculum
- Ensuring competence for general practice
- Aspiring every day for peak performance
- Basing decisions on scientific evidence
- Delivering ethical, competent patient-centered care
- Engaging the University community
- Serving the profession and the public

ACREDITATION
The Midwestern University College of Dental Medicine-Arizona is accredited by the Commission on Dental Accreditation (CODA) and has been granted the accreditation status of "full accreditation." CODA, which operates under the auspices of the American Dental Association (ADA), is recognized by the U.S. Department of Education as the national accrediting body for dental education programs at the post-secondary level in the United States.

For further information, please contact the American Dental Association, 211 E. Chicago Avenue, Chicago, IL 60611; 800/621-8099. The web address is http://www.ada.org/117.aspx.

DEGREE DESCRIPTION
Upon graduation from the College of Dental Medicine-Arizona, the Doctor of Dental Medicine (D.M.D.) degree is granted. The usual length of the course of study is four academic years. The curriculum consists of two years of primarily didactic and preclinical instruction with clinical introductory experiences followed by two years of primarily clinical experiences and rotations including applicable didactic material. Upon graduation with the D.M.D. degree, the graduate is eligible to take licensure examinations to enter dental practice or participate in residency training in advanced fields of dentistry.

ADMISSIONS
The Midwestern University College of Dental Medicine-Arizona considers for admission those students who possess the academic, professional, and personal qualities necessary for development as exemplary dental professionals. To select these students, the College uses a rolling admissions process within a competitive admissions framework.

Admission Requirements
To be competitive, an applicant should have earned a bachelor’s degree from an accredited college or university. Possess both a science (biology, chemistry, and physics) and total GPA of 2.75 or more (although 3.20 will be generally competitively necessary) on a 4.00 scale. A minimum science and overall GPA of 2.75 on a 4.00 scale is required to receive a supplemental application from the College.
Prerequisite courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology with lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>Organic Chemistry with lab</td>
<td>4 Semester/6 Quarter hours</td>
</tr>
<tr>
<td>Anatomy with lab</td>
<td>3 Semester/4 Quarter hours</td>
</tr>
<tr>
<td>Microbiology with lab</td>
<td>3 Semester/4 Quarter hours</td>
</tr>
</tbody>
</table>

Other Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>8 Semester/12 Quarter hours</td>
</tr>
<tr>
<td>Physiology</td>
<td>3 Semester/4 Quarter hours</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3 Semester/4 Quarter hours</td>
</tr>
<tr>
<td>English Composition/Technical Writing</td>
<td>6 Semester/9 Quarter hours</td>
</tr>
</tbody>
</table>

No grade lower than a C will be accepted for any prerequisite courses (A grade of C- will not be acceptable). Complete above prerequisite courses. Submit competitive scores on the Dental Admission Test (DAT).

1. Complete above prerequisite courses.
2. Submit competitive scores on the Dental Admission Test (DAT).
   - Scores in the area of 18 or higher will be expected for the Academic Average, Reading Comprehension and Perceptual Ability sections
   - The DAT test must have been taken no more than 3 years prior to application
   - Note: The Canadian DAT can be substituted for the U.S. DAT. All sections of the Canadian DAT are required.
3. Submit three letters of recommendation.
   - One must be from either a predental advisory committee or a science professor
   - The others preferentially should be from either someone with a D.O./M.D. or D.D.S./D.M.D. degree and/or someone who can testify to the integrity and ethical standards of the applicant
   - Letters written by immediate family members will not be accepted

4. Demonstrate a sincere understanding of, and interest in, the humanitarian ethos of health care and particularly dental medicine.
5. Reflect a people or service orientation through community service or extracurricular activities.
6. Reflect proper motivation for and commitment to health care as demonstrated by previous salaried work, volunteer work, or other life experiences.
7. Possess the oral and written communication skills necessary to interact with patients and colleagues.
8. Agree to abide by Midwestern University Drug-Free Workplace and Substance Abuse Policy.
9. Pass the Midwestern University criminal background check.

Competitive Admissions
Within the competitive admissions framework, the College uses multiple criteria to select the most qualified, diverse group of candidates from an applicant pool that greatly exceeds the number of seats available. Applicants are evaluated on academic coursework, performance on the Dental Admission Test (DAT), their application (AADSAS) essays, letters of evaluation, and interviews. Demonstrated community service through volunteerism or service-oriented employment is preferred.

Rolling Admissions
Midwestern University College of Dental Medicine-Arizona uses a rolling admissions process. Applications are reviewed and decisions to interview individual candidates are made at regular intervals during the admissions cycle. Interviews are conducted and the selection process of each candidate for College admission is made until the class is filled. Applicants are notified of their selection status as soon as possible after their interview date, but not prior to December 1 of the year preceding matriculation which is the earliest date the U.S. and Canadian dental schools have agreed to extend a position in the class.
International Applicants
An international student must complete a minimum of 30 semester hours of coursework from a regionally accredited college or university in the United States, or from a recognized post secondary Canadian institution that uses English as its primary language of instruction and documentation. Of the 30 semester hours, 15 hours must be in the sciences, 6 hours in non-remedial English composition, and 3 hours in speech/public speaking.

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Application Process
To initiate the application process, prospective students must apply directly to AADSAS at:

1400 K Street NW
Suite 1100
Washington, DC 20005;
Phone: 202/289-7201;
Fax: 202/289-7204

Students may apply online at http://portal.aadsasweb.org. Students may access an AADSAS application in mid-May of the academic year preceding the year in which they plan to matriculate.

After receiving an applicant’s processed information from AADSAS, the Office of Admissions creates the applicant file. Concurrently, the office sends a supplemental application to applicants meeting the minimum science and total GPA requirement of 2.75 on a 4.00 scale. The Applicant must complete and return the supplemental application as soon as possible; additionally, he/she must request three letters of evaluation. All letters of evaluation must be submitted by the evaluators directly to AADSAS or to MWU - the Office of Admissions will not accept evaluations submitted by students.

Please Note: Status of the application can be tracked on the MWU website. Instructions for accessing accounts are available from the Office of Admissions. Please send notification of any changes in your mailing address and e-mail address. All requests for withdrawal an application must be done in writing; contact the Office of Admissions via e-mail at admissaz@midwestern.edu.

Application Deadline
The official Associated American Dental Schools Application Service (AADSAS) application deadline is January 1st; however, to be competitive within the rolling admissions process, prospective students should submit their AADSAS applications as early as possible after June 1 of the year prior to their desired matriculation. Even though the AADSAS deadline is January 1 of the matriculation year, typically 75 percent of all admissions offers will be made by the end of December of the year prior to matriculation. The Midwestern University College of Dental Medicine-Arizona completion deadline (meaning all necessary parts of the application including DAT test scores and MWU-CDMA supplemental application form are received by the Office of Admissions prior to this date) is March 1 of the expected matriculation year.

Interview and Selection Process
To be considered for interviews, applicants must meet the admissions requirements listed previously. They must also submit all of the materials necessary to complete their files, e.g., AADSAS applications, supplemental MWU applications, DAT scores, and three letters of recommendation written by a predental advisory committee, a faculty member, a dentist or physician, and by someone who knows the applicant very well.

After the Office of Admissions receives these materials, applicant files are reviewed to determine whether applicants meet merit interviews based on established criteria of the Admissions Committee. The Chair of the Admissions Committee, with the approval of the Dean, may also place a large number of students on an interview "wait list" pending possible interview openings toward the end of the interview cycle.

When applicants accept interviews, they join several other interviewees to meet with members of a one-or two-person interview panel, which is selected from a volunteer group of basic scientists, administrators, and dental clinicians. Team members and students question applicants about their academic, personal, and healthcare preparedness for dental
school, and they rate the applicants on a standardized evaluation form relative to each of these variables. At the conclusion of the interviews, team members forward their evaluations for each applicant to the Admissions Committee. The Committee may recommend to accept, to deny, or to place applicants on either the hold or alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status after the interviews, but not before December 1 of the year preceding matriculation, which is the date that all dental schools have agreed would be the first notification date.

The interview process typically begins in the summer prior to matriculation and ends in April or May of the matriculation year.

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

The following abilities and expectations must be met by all students admitted to the College with reasonable accommodation. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. Motor: Candidates must be able to coordinate both gross and fine motor movements, maintain equilibrium and have functional use of the senses of touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks. Candidates must be able to lift 20 lbs.
4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of 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.

Candidates 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean, will identify and discuss what accommodations, if any, the College would need to make that would allow the candidate to complete the curriculum. The College is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.

6. Submit additional documents as requested by the Office of Admissions or college.

7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.

8. Submit a signed Credit Policy Statement.

9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.

10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

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

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

Transfer Admission
Midwestern University College of Dental Medicine-Arizona may elect to accept transfer students from other dental schools as long as these students remain in good academic standing and have an acceptable reason(s) for seeking transfer. Typically, transfers are granted only to students desiring to transfer between the second and third years of the dental program.

To be considered for transfer, students must meet the College’s general requirements for admission. Students must also observe the following procedures:

1. All inquiries for transfer to Midwestern University College of Dental Medicine-Arizona must be submitted to the Office of Admissions.

2. Completed applications are returned to the Office of Admissions and must include transcripts from the previous dental school, class rank (must be in top 50%), a statement of the reason for transfer, a Dean’s letter of “Good Academic Standing,” and a letter of reference from the Dean of Students.

3. Completed applications are forwarded to the Dean.

4. Applications are reviewed by the Dean, who will conduct interviews with transfer applicants.

5. Applicants are notified by the Dean of final transfer admission decisions.

6. Students applying for transfer must not have been previously rejected for admission to MWU-CDMA through the standard admissions process.

GRADUATION REQUIREMENTS
The degree Doctor of Dental Medicine (D.M.D.) is conferred upon candidates who have satisfied all academic requirements including those related to ethical and professional standards; who have passed NBDE Part I; and who have satisfied all financial obligations to Midwestern University, after recommendation of the Dean and approval of the President. All graduating students are expected to attend the ceremony at which the degree is conferred.

Licensure Requirements
Dental graduates of U.S. dental schools can obtain full practice rights in all 50 states as well as many foreign countries. To obtain licensure, dental clinicians must meet the requirements established by individual states. Typically, states grant licensure in one of two ways:

1. State accepts a certificate issued by the written National Board Dental Examination and a certificate issued by a regional clinical dental testing agency.

2. The state honors a formal, or informal, reciprocity agreement with another state(s) or issues a license by credentialing the certificate from another state.

Licensure requirements vary among states. For further information concerning licensure, please contact the American Dental Association, the American Association of Dental Boards, or the individual state licensing board.

INSTRUCTIONAL PROGRAM
The College of Dental Medicine-Arizona’s goals are divided into four categories that include teaching, research, patient care and service.

The Goals for Teaching are to:

1. Foster a humanistic and character-developing environment for students

2. Foster a holistic and compassionate approach to patient care
3. Foster interprofessional education with other Midwestern University colleges and programs
4. Graduate competent dentists who possess the appropriate levels of clinical judgment, understanding, empathy, technical skills, and independence to begin professional practice
5. Develop and implement a curriculum that leads to competency
6. Encourage a broad and encompassing diversity
7. Ensure the respectful treatment of students as professionals and future colleagues in the profession
8. Promote faculty and staff recruitment, development, and retention to assure continued excellence and success of the College
9. Ensure mutual respect among faculty, staff, and students and to recognize the diverse roles these individuals play in the educational process
10. Promote ongoing programs for faculty to promote teaching effectiveness and student learning
11. Provide members of the faculty and staff with greater recognition to elevate morale, improve effectiveness, and enhance job satisfaction
12. Instill a sense of community in graduating dentists by providing community-based opportunities for the enhancement of pre-doctoral education
13. Improve access to dental care for Arizona’s indigent and underserved populations
14. Avail students to the use of new technology in learning and patient care
15. Encourage critical thinking and life-long learning

The Goals for Research are to:

1. Promote research and scholarly activity among faculty
2. Promote learning through student research and scholarly activity

The Goals for Patient Care are to:

1. Maintain a patient care program that provides students with the educational experiences they need to become competent practitioners
2. Maintain a patient care program that provides patients the high quality care they need for good oral health
3. Create patient-friendly clinics that strengthen the clinical learning environment and demonstrate our respect for patients as a valuable resource and an essential component of our teaching program
4. Support and encourage both individual and collective efforts to meet the oral health needs of populations with special healthcare requirements

The Goals for Service are to:

1. Inform members of the University and the dental practice community regarding the educational, research, and service missions and achievements of the College
2. Provide educational programs for dental and other health professionals

**CURRICULUM**

The Midwestern University College of Dental Medicine-Arizona reserves the right to alter its curriculum whenever it deems appropriate.

Total credits first year - 57.0
Total credits second year - 68.5
Total credits third year - 69.5
Total credits fourth year - 62.0

**Total for program completion - 257**

First Year Total: 57.0

**Fall Quarter Total**

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<tr>
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<td>Preventive Dental Medicine II</td>
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<td>DENT 1633</td>
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<td>Surgical Periodontics General Practice</td>
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<td>DENT 1726</td>
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<td>DENT 1733</td>
<td>Clinical Reviews</td>
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<td>DENT 1734</td>
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### Winter Quarter

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<tr>
<td><strong>Interdisciplinary Education</strong></td>
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<tr>
<td>CORE 1560, 1570, 1580 <em>Interdisciplinary Healthcare</em></td>
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<tr>
<td>The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated. Each course 0.5 credits</td>
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<tr>
<td><strong>Basic Science Education</strong></td>
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<td>Integrated Basic Sciences BASI 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509</td>
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<td><strong>BASI 1501 Basic Science Integrated Sequence I</strong></td>
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<td>BASI 1501 provides an overview of cell structure and function, including topics on molecular cell biology, metabolism, epithelium, general connective tissues, and blood. Module 1: Cell and Molecular Biology outlines the basic histological structure and biochemical function of the cell with emphasis on transcription, translation, and control of gene expression. Module 2: Metabolism focuses on normal cell metabolism and includes application of the basic concepts of metabolism to cases. Module 3: Epithelium, General Connective Tissues, and Blood defines the basic structure, function, and biochemical characteristics of two basic histological tissues: epithelium and connective tissue. This module also includes an introduction to cellular adaptations, injury, and death and to peripheral blood cells and hemopoiesis. The biochemical basis of hemostasis is described. Disorders of hemostasis and their consequences are discussed. 4.5 credits</td>
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<td><strong>BASI 1502 Basic Science Integrated Sequence II</strong></td>
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<tr>
<td>BASI 1502 provides an overview of cancer, genetics, lymphatic system, and immunology. In Module 4: Cancer and Genetics emphasis is placed on DNA mutations, polymorphisms, patterns of inheritance in human diseases, cytogentic, and molecular basis of cancer. Module 5: Lymphatic System and Immunology includes the gross anatomy and histology of the lymphatic system and the structure/function of the immune system. Basic precepts of the lymphatic system and immunology will be applied to inflammation, tissue repair and healing. Understanding of immunology will be applied to immune responses to infectious agents. Also included are: development and</td>
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**DEPARTMENTS**

Organizationally, the College of Dental Medicine-Arizona is divided into two non-departmental areas, Preclinical Dentistry and Clinical Dentistry.
pathology of immunologically-mediated diseases, immune responses to transplants, cancer, HIV infection, and therapeutic use of drugs affecting the immune system.
4.5 credits

BASI 1503 Basic Science Integrated Sequence III
BASI 1503 provides an overview of infectious diseases, integument, and blood disorders. Module 6: Introduction to Infectious Diseases provides fundamental understanding of basic concepts in microbiology to accurately identify and manage infectious diseases. The information will aid in the management of the patient’s health and general well-being. In Module 7: Integument and Blood Disorders, students combine their knowledge of epithelium and connective tissue to learn the basic structure and function of the integument. This module further describes common infections and pathologies of the integument as well as blood-borne infections and blood disorders.
4.5 credits

BASI 1504 Basic Science Integrated Sequence IV
BASI 1504 provides an overview of the Musculoskeletal System (Module 8). Module 8 includes: the basic concepts of embryology, an introduction to gross anatomy, the structure and function of skeletal and smooth muscle and the development of bone and cartilage. Muscle membrane excitability and the molecular basis of muscle contraction are discussed. Diseases of bone and soft tissues are included. This module contains lectures and two laboratory sessions that describe upper extremity anatomy and function.
3.0 credits

BASI 1505 Basic Science Integrated Sequence V
BASI 1505 provides an overview of the nervous system and is composed of one module titled Nervous System (Module 9). This module begins by discussing the nervous system in terms of its organization, support systems, and structure including the histology of nervous tissue, brain biochemistry, and mechanisms of neurotransmission including development of action potentials and synaptic transmission. This is followed by nervous system development, and then descriptions of the structure and function of the somatosensory pathways, descending motor systems, auditory, vestibular, and visual systems, and finally finishing with the cerebral cortex. Common clinical concerns are also discussed including relevant microbiology and pathology.
5.0 credits

BASI 1506 Basic Science Integrated Sequence VI
BASI 1506 provides an overview of the structure and function of the Cardiovascular (Module 11) and Respiratory Systems (Module 12). Module 11: Cardiovascular System begins with a discussion of the anatomy, histology, and embryological development of the heart and circulatory system. Other topics included are cardiac muscle function, electrophysiology of cardiac muscle, cardiac cycle, and cardiac performance. Control of cardiovascular function integrates discussions of hemodynamics, regional circulation, and arterial blood pressure. Module 12: Respiratory System discusses the anatomy and histology of the respiratory system, mechanics of breathing, gas transport, and regulation of respiration. Relevant topics in microbiology, pathophysiology, and pathology are described in both modules.
5.0 credits

BASI 1507 Basic Science Integrated Systems VII
BASI 1507 provides an overview of the Endocrine System (Module 13) and the Gastrointestinal (GI) System (Module 14). In Module 13 the disciplines of histology and physiology describe the basic structure and normal function of the Endocrine System. Topics discussed include the hypothalamic control of endocrine secretion and regulation of individual endocrine organs. Common disorders of the Endocrine System are discussed by the pathology faculty. Module 14 Gastrointestinal System includes topics such as: chewing, swallowing and digestion. The gross anatomical, histological, physiological, microbiological, and pathological aspects of the GI system are discussed.
4.0 credits

BASI 1508 Basic Science Integrated Systems VIII
BASI 1508 provides an overview of the Urogenital System (Module 15). Topics included in the first part of the module are: the anatomy of the urogenital system, histology of the urinary system, renal tubular transport mechanisms, the production of urine, the control of extracellular fluid volume, and acid/base balance. The second part of the module provides an overview of the structure and function of the Male and Female Reproductive Systems. Diseases of the urogenital system are discussed.
3.0 credits

BASI 1509 Basic Science Integrated Systems IX
BASI 1509 provides an overview of the Gross Anatomy of the Head and Neck (Module 16). This module provides instruction in the fundamental head and neck gross anatomy information required for clinical training. Three-dimensional relationships among anatomical structures are reinforced by in-depth dissections of the head and neck. Students are expected to use this anatomical information to elucidate and solve case-based problems commonly seen in clinical practice. Student dissection of the head and neck is performed under faculty supervision during three 3-hour laboratories per week.
4.5 credits

DENT 1601, 1621 General Pharmacology I, II
This course spans two quarters and provides a study of drugs used in dentistry and drugs commonly taken by patients that affect their dental treatment. Emphasis is placed on the physical and chemical properties of the drugs, dosages, and
therapeutic effects, methods of administration and indications/contraindications for the use of the drug. The first quarter covers principles of drug actions, drugs affecting the autonomic nervous system, and drugs affecting the cardiovascular system. The second quarter covers drugs affecting the brain, and drugs affecting various additional human body systems, local and general anesthetics, analgesics, and antibiotics.

DENT 1601 - 3.0 credits, DENT 1621 - 4.0 credits

**Behavioral Science Education**

**DENT 1510, 1520 Preventive Dental Medicine I and II**
These courses provide the student with an understanding of oral health, oral plaque biofilm, saliva, oral-systemic disease, and the fundamental epidemiology, etiology, pathology and risk-based prevention associated with the most common oral diseases: dental caries, periodontal disease, and oral cancer. The role of the dentist in identifying and managing anxious patients, patient-centered and culturally effective care, patient health education and compliance, and the role of nutrition in a patient’s overall and oral health are discussed. Lectures are supplemented with case studies to prepare the student to develop preventive strategies for both preventive and restorative treatments.

Each course 1.0 credit

**DENT 1514, 1523, 1534 Healthcare Ethics I, II, III**
Healthcare Ethics introduces dental students to the broad concepts of ethical guidelines, reasoning, and decision-making affecting the delivery of healthcare.

Each course 0.5 credits

**DENT 1535 Introduction to Human Behavior I**
This course introduces dental students to communication and self-care skills. Topics include relationship and communication skills, rapport with patients and colleagues, stress and time management skills, and ethical considerations.

1.0 credit

**DENT 1612, 1623, 1634 Dental Community Service I, II, III**
In these Dental Community Service courses, second year dental students participate in visits to elementary and junior high schools to provide health promotion education to students in oral disease prevention, tobacco cessation, and drug avoidance. Each student participates on two half-days per quarter.

Each course 0.5 credits

**DENT 1615, 1622, 1633 Dental Ethics and Professionalism I, II, III**
Dental Ethics and Professionalism uses a case-based approach to clinical ethical reasoning and examination of ethical issues and dilemmas in the dental care setting. The course also addresses expectations for professional behavior among dental practitioners.

Each course 0.5 credits

**DENT 1730 Introduction to Human Behavior II**
This course introduces dental students to the recognition, understanding, and symptom management of psychopathology in dental practice. Topics include depression, psychosis, addictions, behavioral change, and anxiety management.

1.0 credit

**DENT 1734, 1743, 1832 Dental Ethics Grand Rounds I, II, III**
Dental Ethics Grand Rounds involves a series of large case study analyses through self-study, small group discussion, and in-class discussion.

Each course 0.5 credits

**DENT 1842 Dental Ethics Capstone**
DENT 1842 is a capstone experience where students describe and analyze, in writing, a significant ethical issue or dilemma they have encountered in dental school.

0.5 credits

**Clinical Education**

**DENT 1512, 1522, 1533, 1614, 1625, 1636 Oral Health Sciences I, II, III, IV, V, VI**
These continuously running didactic courses take the student from dental morphology and occlusion and through basic to advanced clinical dentistry of operative dentistry, fixed and removable prostodontics (including principles and applications of CAD/CAM and implant dentistry), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics, and temporomandibular function and dysfunction. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, oral pathology, and dental material science into its core while continuously utilizing a case-based, evidenced-based approach from a patient perspective.

DENT 1512 - 2.0 credits; DENT 1522 - 2.5 credits; DENT 1533 - 2.5 credits; DENT 1614 - 10.0 credits; DENT 1625 - 10.5 credits; DENT 1636 - 9.5 credits

**DENT 1512L, 1522L, 1533L, 1614L, 1625L, 1636L Oral Health Sciences I, II, III, IV, V, VI Lab**
These continuously running laboratory courses, which are simulation clinic modules, take the student from dental morphology and occlusion and through basic to advanced clinical dentistry in operative dentistry, fixed and removable prostodontics (including design and fabrication of CAD/CAM restorations and implant placement and restoration), rotary endodontics, pediatric dentistry, oral surgery, oral medicine, periodontics, orthodontics and temporomandibular function and dysfunction introducing
therapeutic appliance diagnosis and fabrication. The courses are organized into tooth systems. Each system integrates such topics as growth and development, cariology, radiology, and dental material science into the core of restorative procedures from pediatric to geriatric patients. Simulated clinical competencies integrate radiographic diagnosis, basic science, and treatment planning in conjunction with typical psychomotor skills to enhance the comprehensive preclinical learning experience.

DENT 1512L - 2.0 credits; DENT 1522L - 2.0 credits; DENT 1533 L - 2.0 credits; DENT 1614L - 7.0 credits; DENT 1625L - 7.0 credits; DENT 1636L - 8.0 credits

DENT 1617, 1627, 1639 Clinical Case Studies I, II, III
This seminar series allows the dental students to participate in treatment planning options for complex dental cases and requires them to work up primary and alternative treatment plans for complex patients likely to be seen in a general practice, and present the plans to their faculty mentors in a case presentation format. The concepts used by the Western Regional Examination Board format for Patient Assessment and Treatment Planning are introduced. This course runs for three quarters during the second-year curriculum where cases will become increasingly more challenging.
Each course 1.5 credits

DENT 1637, 1721 Anesthesia, I, II
Anesthesia I covers the anatomy, medical considerations, pharmacology, techniques, and complications of local anesthesia in dental practice. Anesthesia II covers nitrous oxide administration; oral, IM, IV, and conscious sedation; general anesthesia; and emergency management. Clinical experiences occur in subsequent clinical courses.
Each course 1.0 credits

DENT 1638 Medical Emergencies
This course covers the management of medical emergencies likely to be seen in a dental office.
1.0 credit

DENT 1724 Surgical Periodontics General Practice
This course covers periodontal surgeries commonly performed by general practitioners and periodontists. Topics include evidence-based clinical decision-making; resective, regenerative, and plastic surgical techniques; complications of periodontal surgery; and management and maintenance of the surgical patient.
1.0 credit

DENT 1726 Special Needs
Recognizing the unique dental and medical needs of patients who are medically compromised or have mental or physical limitations, this course helps students develop the knowledge and skills needed to render comprehensive oral health care to this population. Students gain an understanding of the complexities of compromises and limitations, learn about adaptive devices and management techniques, and study the role of dentistry in total patient care while learning to manage patients with medical and physical disabilities.
0.5 credits

DENT 1728 Advanced Imaging
This course includes lectures and small group discussions, complemented by "hands-on" exercises in the clinic and laboratory using patient simulation cone beam computed tomography scans. Students work with simulated cases and learn to reformat large 3Dimesional (3D) volume data. They get familiar with coronal, sagittal, and axial planes and learn to arrange the data in cross-sections for evaluation of the TMJ, implant treatment planning, orthodontics, etc. This course prepares the dental students to acquire cone beam CT scans on patients, interpret 3D images, and learn to manipulate the images by application of implant planning software. A patient simulation model provides a sound didactic background and specific clinical skills required to interpret 3D images to help establish a diagnosis, develop a treatment plan, and carry out the clinical and laboratory phases in dental treatment.
1.0 credit

DENT 1733 Clinical Reviews
This course provides a comprehensive review of the major clinical disciplines in dentistry to reinforce previous preclinical instruction and learning and further prepare students to deliver comprehensive patient care.
2.0 credits

DENT 1740 Implantology
This course covers advanced topics in implantology, including clinical decision-making, implant systems, surgical techniques for implant placement, restorative techniques, implant maintenance, and treatment complications.
1.0 credit

DENT 1745, 1750, 1823, 1833 Practice Management I, II, III, IV
The Practice Management courses introduce the dental student to the management of the business, financial, and personnel aspects of dental practice. Topics include managing credit, selecting career options and practice locations, initial establishment of an office, financial management, office systems, and insurance, as well as staff recruitment, development, and management.
Each course 1.0 credit - DENT 1745, 1823, 1833; DENT 1750 - 2.0 credits

DENT 1749, 1759 Clinical Topics I, II
These courses provide further instruction in the dental disciplines and specialties, covering various clinical topics, materials, procedures, and methods to improve dental care for patients.
Each course 1.0 credit
DENT 1822, 1835 Clinical Grand Rounds I, II
The course sequence consists of presentation and discussion of complex clinical dental cases. Working in small groups, students will analyze information from a medical history and dental examination findings, and develop an appropriate treatment plan and alternatives, and present and defend their plan to the class and selected faculty members.
Each course 1.0 credit

DENT 1824, 1834, 1843, 1852 Clinical Service Learning I, II, III, IV
In these Clinical Service Learning courses, fourth year dental students participate in off-campus rotations to community-based clinics providing dental care services to underserved populations. Each student participates 20 days over two years. Each course 1.0 credit

DENT 1836, 1845 Advanced Topics I, II
The course sequence consists of presentation and discussion of complex clinical dental cases, incorporating content from the dental specialties, and other dental disciplines.
Each course 1.0 credit

DENT 1846 Temporomandibular Dysfunction
This course introduces the dental student to the diagnosis and management of temporomandibular (TM) disorders. It covers the muscles of mastication, the TM joint, mouth opening, mandibular movements, signs and symptoms of TM disorders, and the construction and use of partial (niti) and full-mouth removable appliances.
1.0 credit

DENT 2000 Introduction to Dental Clinic
This course is the dental student’s first major exposure to direct patient care. Working in D3/D4 pairs, with students alternating as operators and assistants, students learn the clinical organization, clinical policies and procedures, the clinic software system, the clinic’s equipment, and expectations for patient relations and professionalism, while initiating care under the supervision of a faculty member group leader for a small family of patients assigned to the student pair and shared by them.
12.0 credits

In the Patient Care courses, students learn patient-centered oral health care and develop the clinical competencies required for entry to the general practice of dentistry. By providing patient care under the supervision, guidance, and support of the faculty, students enhance their diagnostic, technical, and interpersonal skills. The course emphasizes the importance of these skills in effective, efficient, and compassionate patient care and guides the students toward independent practice by evaluating competence in the delivering specific services, providing high-quality comprehensive care to all patients, maintaining professionalism in the delivery of care, evaluating accurately one’s clinical performance, and practicing efficiently and profitably.

The Clinical Professionalism courses contain no formal class sessions or written examinations. The courses monitor and evaluate students’ relationships with their patients and their professional conduct in clinic attendance, patient relations, timeliness and continuity of care, patient record management, administrative matters, and professional conduct. The grading philosophy assumes a professional behavioral norm in which all patient encounters and personal interactions are handled appropriately and professionally. Points are deducted for departures from the norm of excellent patient relations, patient management, or professional conduct.
Each course 1.5 credits

This course sequence in the DM3 year, meeting every two weeks, consists of informational sessions about clinical operations, clinical policies, competency assessments, mock boards, real boards, and other matters or issues arising in the delivery of patient care in a learning environment.
Each course 0.5 credits

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.

Preclinical and Clinical Promotions Committee
Two faculty committees of CDMA will review the academic performance of students: the Preclinical Student Promotion Committee for the first two years and the Clinical Student Promotion Committee for the third and fourth years.

Both promotion committees meet at the end of each academic quarter to assess the academic status of students with a F, a WF, an I or an IP grade and assess the progress of each student. Students who attain satisfactory academic and
professional progress are promoted to the next academic quarter, provided all tuition and fees have been paid.

Students who are subject to dismissal are given the opportunity to meet with the appropriate Student Promotion Committee. Notification of the date, time, and place of the committee meeting is sent to the student at least 48 hours in advance by priority email and/or telephone. Students are invited to the meeting to give a statement, to teleconference into the meeting by telephone, or provide a statement by email or in writing, should they so desire. Decisions of the committee are forwarded to the Dean and emailed to the student. The right of appeal exists and is described in the Appeals Process section. Appeals must be filed with the Dean within three working days following official notification of the committee decision.

Students who have successfully completed their clinical education, passed all of the competency evaluations, passed the NBDE Part I, and paid all tuition and fees, will be recommended for graduation to the Faculty Senate.

Academic Failure
Students who accumulate three failures over more than a single academic year, or two failures in a single quarter, may be recommended for dismissal or an academic leave of absence. Students returning from an academic leave of absence are required to retake failed courses. The grade for a course repeated at an outside institution or at Midwestern University and passed is recorded as a grade of "C". The previous "F" course grade remains on the official transcript but does not calculate into the overall Grade Point Average.

Please Note: Students will be assessed tuition and related fees for any additional years.

Academic Warning
An academic warning is a formal notification of substandard, quarterly academic performance, which cautions the student that continued performance at this level may result in the student being placed on academic probation. To return to good academic standing, a student must correct deficiencies and incur no further failures. An academic warning is issued by a Promotions Committee when a student has failed (grade of less than 70) one class in a quarter or upon the unsuccessful completion of a probationary quarter. When a student is placed on academic warning, it is noted in the student's academic file. Subsequently, when a student is returned to good academic standing, this is also noted in the student's file. Academic warning is not noted on transcripts. Students on academic warning are ineligible to hold student organizational offices.

Academic Probation
Academic Probation represents notice that continued inadequate academic performance might result in dismissal. If a student on academic probation successfully completes a probationary quarter, the student's academic status reverts to academic warning. To return to good academic standing, a student must correct deficiencies and incur no further failures. When a student is placed on academic probation, it is noted in the student's academic file. Subsequently, when a student is returned to good academic standing, this is also noted in the student's file. Academic probation is not noted on transcripts. Students on academic probation are ineligible to hold student organizational offices.

Advanced Standing
All requests for advanced standing by admitted, transfer, or enrolled students are processed on a course-by-course basis by the Dean. Courses must be at the graduate level to be considered for advanced standing. To request advanced standing, a student must submit a letter to the Dean in which the student includes a list of the course(s), an official course description(s), a transcript, and a syllabus of the course(s) previously taken. It is expected that a minimum grade of a "B" would have been achieved in the class being petitioned. The decision to grant or deny advanced standing will be made by the divisions providing the dental course in consultation with the CDMA Dean's Office.

Appeal Process
Following notification of a decision of the Student Promotion Committee, a student may appeal the decision in writing within three working days from notification of the decision to the Dean of the College of Dental Medicine-Arizona. The Dean makes the final decision. The Dean may grant an appeal only if a student can demonstrate one of the following:

1. bias of one or more committee members
2. material information not available to the committee at the time of its initial decision
3. procedural error.

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

Course Credit
Course credits are generally determined according to the following formulations:

1. 10 hours of lecture is 1 credit hour
2. 30 hours of laboratory is 1 credit hour
3. 40 hours of clinical activity is 1.5 credit hours
4. Courses involving interactive problem-solving are assigned 0.5 credit hours.

Course Failure Policy
The faculty provides didactic programs and measures students' performance in subject areas deemed necessary to become dental practitioners. Students who do not demonstrate minimum competencies assume the obligation and responsibility to make up academic failures. D-1 students must successfully pass all failed courses before they can be promoted to the second year. Likewise, D-2 students can
begin the clinic and be promoted to the third year only if they pass all requirements of the preclinical curriculum, and National Boards Part I. D-3 and D-4 students must remediate any failed courses within the first month of the subsequent quarter.

Course Prerequisites
Prerequisites for courses may be recommended by the course director who 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 Associate Dean for Academic Affairs or the Dean.

Disciplinary Warning/Probation
Disciplinary warning/probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 of the Student Handbook. Disciplinary probation is not noted on transcript but is kept in the student's disciplinary file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Dismissal
Matriculation and participation in dental school is a privilege, not a right. Therefore, a student can be dismissed for the following reasons:

1. failure to achieve minimum academic standards (preclinical or clinical promotions committees)
2. failure to exhibit the personal qualifications and ethical standards necessary to the practice of dentistry (student judicial process)
3. violation of Midwestern University College of Dental Medicine-Arizona rules and regulations that are grounds for dismissal (student and administrative judicial process).

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

Faculty Advisor Program
The advisor program plays an important role at Midwestern University College of Dental Medicine-Arizona. Students and faculty work closely together in the academic arena. This kind of educational interaction permits students to get to know their faculty and vice versa. Students are encouraged to use the advice, expertise, and help of the faculty. Students should feel free to contact a faculty member of their choice for advice, encouragement, and support.

Failure Policy for First-and Second-Year Students
The faculty provides didactic programs and measures student performance in subject areas deemed necessary for dental practitioners. Students who do not demonstrate sufficient academic progress assume the obligation and responsibility to make up academic failures. First-year students must successfully pass all failed courses before they can be promoted to the second year. Likewise, second-year students can only begin clinical rotations and be promoted to the third year if they pass all requirements of the preclinical curriculum, and National Boards Part I.

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

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

<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>4.00</td>
<td>—</td>
</tr>
<tr>
<td>A−</td>
<td>90–92</td>
<td>3.67</td>
<td>—</td>
</tr>
<tr>
<td>B+</td>
<td>87–89</td>
<td>3.33</td>
<td>—</td>
</tr>
<tr>
<td>B</td>
<td>83–86</td>
<td>3.00</td>
<td>—</td>
</tr>
<tr>
<td>B−</td>
<td>80–82</td>
<td>2.67</td>
<td>—</td>
</tr>
<tr>
<td>C+</td>
<td>77–79</td>
<td>2.33</td>
<td>—</td>
</tr>
<tr>
<td>C</td>
<td>70–76</td>
<td>2.00</td>
<td>—</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 70</td>
<td>0.00</td>
<td>For professional programs</td>
</tr>
</tbody>
</table>

An Incomplete (I) grade may be assigned by a course director when a student’s work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an “I” grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. 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 10 days, it may be converted to a grade of “F,” which signifies failure of the course.

An In Progress (IP) grade may be assigned by a course director when a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an “IP” grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time, up to one month to complete required coursework. The “IP” in progress is used when extenuating circumstances make it necessary to extend the grade completion period past 10 days (illness, family death, etc). The completion period should not exceed one quarter with notification to the Registrar.

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.

Withdrawal can be given during the third to the eighth weeks of the quarter. There is no penalty and no credit.

Withdrawal/Failing is given after 50% of the course is complete and the average 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.

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.

This designation indicates the decision of a college to award academic credit that precludes a student from taking required course work. The designation of Advanced Placement (AP) is applied toward credit hour accruals, but is not counted in the GPA calculation.

These grading scales apply to all courses unless otherwise noted in the course syllabus.
Immunization Policy for CDMA
Full-time students are required to have all immunizations as outlined in the general policy section of this handbook.

National Boards Policy
All Midwestern University College of Dental Medicine-Arizona students must pass NBDE Part I in order to be eligible to begin clinical instruction. If a student encounters a catastrophic event that prevents the student from taking the examination during that timeframe, the Dean may allow the student to enter the clinic schedule and take the examination at a later date as mutually agreed to by the student and Dean.

Students who fail to pass the NBDE Part I examination on their first attempt will be allowed to continue as registered students as noted below. The student:

- Will not be allowed to start the clinical component of the curriculum.
- Will be provided with a list of available resources in order to adequately prepare for a repeat examination. The student will be advised to take a formalized board review course. Any associated expenses and arrangements are the student’s responsibility.

Students who fail to pass the NBDE Part I examination on their second attempt will be allowed to continue as registered D2 students as noted below. The student:

- Will be required to retake the examination at a date approved by the Dean.
- Is required to sit for the NBDE Part I examination (third attempt) and if successful, is then eligible to begin patient care.

Any student who fails to pass NBDE Part I examination for the third time needs to wait one full year prior to re-taking the examination per National Board rules and will be remanded to come before the Preclinical Student Promotion Committee and is subject to dismissal for failure to meet the academic requirements.

Passing any portion of a licensing examination is not a substitute for passing a Midwestern University course.

Retake Course Grade
The grade for a failed course repeated at an outside institution, or at Midwestern University and passed is recorded as a grade of "C".

Satisfactory Academic Progress
As required by federal law, reasonable standards of satisfactory academic progress have been established by Midwestern University College of Dental Medicine-Arizona for the Doctor of Dental Medicine program. These standards apply to all students applying for, or currently receiving, financial assistance. The policy and procedure for assessing financial aid status is noted in the Student Financial Services section of this handbook.

FACULTY
Dental
Daniel K. Boden, D.M.D.
UMDJ - New Jersey Dental School
Assistant Professor/Clinical Care Coordinator

Mary J. Brannock, D.D.S.
University of Oklahoma
Assistant Professor/Clinical Care Faculty

Sheri A. Brownstein, D.M.D.
University of Florida, College of Dentistry
Assistant Professor/Preclinical

Steven Call, D.D.S.
University of Oklahoma
Assistant Professor/Clinical Care Coordinator

Robert D. Carpenter, D.M.D.
Tufts University, School of Dental Medicine
Associate Professor/Oral Surgery Specialist

Alexander Carroll, D.D.S.
University of Southern California
Director of Clinical Care Coordinators

Marc P. Cohn, D.D.S.
Marquette University
Clinical Assistant Professor

Russell Cyphers, D.D.S.
Loma Linda University School of Dentistry
Assistant Professor/Clinical Care Coordinator

Janece Davis, D.D.S.
Loma Linda University School of Dentistry
Assistant Professor/Clinical Care Faculty

Ernest F. Delmoe, D.D.S.
Creighton University
Assistant Professor/Clinical Care Faculty

Cheryl A. Dewood, D.D.S., M.S., Ph.D.
Case Western Reserve University
Associate Professor/Orthodontist

David Dodell, D.M.D.
Tufts University School of Dental Medicine
Dental Informatics Coordinator

George Dougherty, D.D.S.
Georgetown University, School of Dentistry
Assistant Professor/Clinical Care Coordinator

Janine A. Dumont, D.D.S.
Northwestern University Dental School
Assistant Professor/Clinical Care Faculty
Gilda P. Ferguson, D.D.S., Ph.D.
Medical College of Virginia, Virginia Commonwealth University
Assistant Professor/Preclinical

John R. Francis, D.D.S., M.S.
Creighton University
Assistant Professor/Periodontist

Junius N. Gibbons, D.D.S.
University of the Pacific, School of Dentistry
Assistant Professor/Clinical Care Coordinator

Russell O. Gilpatrick, D.D.S.
University of the Pacific, School of Dentistry
Dean and Professor

Ronald D. Giordan, D.D.S.
Marquette Dental School
Assistant Professor/Clinical Care Coordinator

Pankaj R. Goyal, D.D.S.
University of Illinois
Clinical Assistant Professor

Wayne A. Greenwood, D.M. D.
Tufts University School of Dental Medicine
Clinical Assistant Professor

Harold J. Haering, D.M. D.
University of Kentucky, College of Dental Medicine
Assistant Professor/Clinical Care Coordinator

Christine Halket, D.D.S., MA Ed.
Baylor College of Dentistry
Associate Professor/Preclinical Leader

Mark V. Hayden, D.D.S.
University of Southern California
Clinical Assistant Professor

Ronald J. Hunt, D.D.S., MS
University of Iowa, College of Dentistry
Associate Dean for Academic Affairs and Professor

Mark A. Jensen, D.D.S.
Northwestern University Dental School
Clinical Assistant Professor

Laurence D. Johns, D.D.S., M.S.D.
Indiana University, School of Dentistry
Assistant Professor/Endodontics Specialist

Gary M. Johnson, D.D.S.
University of Minnesota, School of Dentistry
Assistant Professor/Preclinical

Robert T. Kramer, D.M.D.
University of Pittsburgh, School of Dental Medicine
Assistant Professor/Preclinical

George H. Master, D.M.D.
University of Pennsylvania School of Dentistry
Assistant Professor- Oral Surgery

Radd W. Lukas, D.D.S.
University of Washington School of Dentistry
Assistant Professor/Preclinical

Michael R. Meharry, D.D.S., M.S.
Loma Linda School of Dentistry
Clinical Assistant Professor

Thomas F. McDaniel, D.M.D., FAGD
University of Louisville, School of Dentistry
Associate Professor/Preclinical

Denise Mills, RDH, D.D.S.
University of California, Los Angeles
Assistant Professor/Clinical Care Faculty

John Mitchell, Ph.D.
Ohio State
Professor/Director of Dental Research

Jay Morrow, D.D.S.
University of Washington, School of Dentistry
Assistant Professor/Preclinical Leader

Aseel Murad, D.M.D.
University of Pennsylvania, School of Dental Medicine
Assistant Professor/Preclinical

Vijay Parashar, B.D.S., M.D.Sc.
University of Detroit Mercy, School of Dentistry
Associate Professor/Radiology Specialist

James Pashayan, D.D.S., MA Ed.
Case Western Reserve University
Associate Dean of Clinical Sciences/Assistant Professor

Jeffrey Perry, D.M.D.
University of Pennsylvania School of Dental Medicine
Assistant Professor/Preclinical

Howard Polk, D.D.S.
University of Illinois at Chicago, College of Dentistry
Associate Professor

Teresa Pulido, D.D.S., MS
Ohio State College of Dentistry
Assistant Professor/Preclinical

Steven C. Reynolds, D.D.S., MSBA
University of Detroit-Mercy
Assistant Professor/Clinical Care Faculty

Thomas H. Risbrudt, D.D.S.
University of Minnesota School of Dentistry
Assistant Professor

David D. Rolf, II, D.M.D., MS
Washington University, School of Dental Medicine
Associate Professor
Eugene Salazar, D.D.S.
University of Colorado, School of Dentistry
Clinical Assistant Professor

Leigh-Ann Schuerman, D.M.D.
University of Southern Illinois
Assistant Professor/Clinical Care Coordinator

Gregory M. Schuster, D.D.S.
University of Washington
Assistant Professor/Clinical Care Coordinator

Azfar Siddiqui, BDS, D.M.D., MSc
University of Pittsburgh, Pennsylvania
Associate Professor/Prosthodontics Specialist

Thomas W. Sigrist, D.D.S.
Northwestern University, Dental School
Assistant Professor/Clinical Care Coordinator

Trevor Siu, D.M.D.
Boston University, School of Dentistry
Assistant Clinical Professor

Rebecca Siscel, D.D.S.
University of Missouri School of Dentistry
Clinical Assistant Professor

P. Bradford Smith, D.D.S.
University of the Pacific, School of Dentistry
Associate Dean of Preclinical Sciences/Assistant Professor

Louis Sommerhalter, D.D.S.
University of Tennessee, College of Dentistry
Assistant Professor/Clinical Care Coordinator

Scott L. VanDaHuvel, D.D.S.
Marquette University
Assistant Professor/Preclinical

Martin Zais, D.D.S.
University of California, San Francisco
Associate Professor

Norman M. Zarr, D.D.S.
University of Tennessee, College of Dentistry
Assistant Professor/Clinical Care Coordinator

Theodore Zislis, D.D.S.
Temple University School of Dentistry
Assistant Professor/Preclinical Pathologist

ADJUNCT FACULTY

T. Robin Andrews, D.M.D.
University of Oregon, Dental School

Gregory Ceyhan, D.D.S.
McGill University

Dennis Cufone, D.D.S.
University of Southern California, School of Dentistry

Fred Davidson, D.D.S.
Loma Linda University -School of Dentistry

Brian J. Dorfman, D.M.D., M.D.
University of Pittsburgh, School of Dental Medicine

William D. Elza, D.D.S.
Boston University Goldman School of Dental Medicine

Nancy M. Fitzgerald, D.M.D.
Midwestern University College of Dental Medicine-Arizona

Greig M. Florento, D.D.S.
University of Toronto, Canada

Anita Chu Fountain, D.D.S.
Marquette University, Dental School

Michael S. Fountain, D.D.S.
Marquette University, Dental School

Melissa Goins, D.D.S.
University of the Pacific, School of Dentistry

Brent Hall, D.D.S.
University of Colorado, School of Dentistry

Bradley T. Hammond, D.D.S., M.D.
Northwestern University School of Dentistry

David Hancock, D.D.S.
Northwestern University Dental School

Matthew Harmon, D.M.D.
Midwestern University College of Dentistry-Arizona

Richard Mason, D.D.S.
Baylor College of Dentistry

Richard Matsuishi, D.D.S.
University of Southern California, School of Dentistry

Kevin Mueller, D.M.D.
Southern Illinois University, School of Dentistry

Laura N. Nichols, D.M.D., MHS-HIA
Boston University School of Dentistry

Ardeshir Sadeh-Khous, D.D.S.
University of Southern California School of Dentistry

Bilal Shafi, D.D.S.
Creighton University School of Dentistry

Salim Shafi, D.D.S.
University of Newcastle Dental School - UK

Ronald K. Shelley, D.M.D.
Tufts University, School of Dental Medicine

Gary Takacs
University of Oregon

Linda Tang, D.D.S.
Loma Linda University School of Dentistry
Robert B. Taylor, D.D.S.
University of Texas Health Science Center

Daphne M. Velazquez, D.D.S.
Loma Linda University, School of Dentistry

Michelle A. Wall, MPH, D.D.S.
Loma Linda University, School of Dentistry

Brian Wilson, D.D.S.
Marquette University, Dental School

BASIC SCIENCE
Layla Al-Nakkash, Ph.D.
University of Newcastle-Upon-Tyne
Associate Professor

Larry D. Alexander, Ph.D.
Meharry Medical Center
Assistant Professor

Nancy S. Bae, Ph.D.
University of Maryland at College Park/NIH
Assistant Professor

Thomas L. Broderick, Ph.D.
University of Alberta
Professor

John R. Burdick, Ph.D.
Iowa State University
Dean of Basic Sciences and Professor

Gerald Call, Ph.D.
University of Kansas
Associate Professor

C. George Carlson, Ph.D.
SUNY Upstate Medical University
Professor

Chad C. Carroll, Ph.D.
University of Arkansas for Medical Sciences
Assistant Professor

Mark N. Coleman, Ph.D.
Stony Brook University
Assistant Professor

Dana Devine, D.O.
University of Health Sciences Kansas City
Associate Professor

Justin Georgi, Ph.D.
University of New York at Stony Brook
Assistant Professor

Fernando Gonzales, Ph.D.
University of Texas Southwestern - Medical Center of Dallas
Assistant Professor

Ari Grossman, Ph.D.
Stony Brook University
Assistant Professor

Wade A. Grow, Ph.D.
University of Idaho
Professor

Margaret Hall, Ph.D.
University of New York at Stony Brook
Associate Professor

Christopher P. Heesy, Ph.D.
University of New York at Stony Brook
Associate Professor

Jose Hernandez, Ph.D.
University of Zaragnoza
Assistant Professor

Lauritz Jensen, M.S., D.A.
University of Northern Colorado
Professor

Garilyn Jentarra, Ph.D.
Arizona State University
Assistant Professor

Douglas Jones, Ph.D.
University of Texas
Assistant Professor

T. Bucky Jones, Ph.D.
Ohio State University
Assistant Professor

Sam Katzif, Ph.D.
Georgia State University
Assistant Professor

Jason Kaufman, Ph.D.
Washington University
Assistant Professor

Laszlo Kerecsen, M.D.
Medical School of Debrecen
Professor

Tyler A. Kokjohn, Ph.D.
Loyola University
Professor

Shaleen Korch, Ph.D.
University of Manitoba
Assistant Professor

Kathryn Lawson, Ph.D.
University of Arizona
Assistant Professor

Andrew Lee, Ph.D.
University of California/Berkley
Assistant Professor
Kathryn J. Leyva, Ph.D.
Northern Arizona University
Professor

David F. Mann, Ph.D.
Michigan State University
Professor

Lauren McCarver, M.D.
University of Arizona
Clinical Assistant Professor

Randall L. Nydam, Ph.D.
University of Oklahoma
Professor

Robin R. Parmley, Ph.D.
Rush University
Assistant Professor

Jeffrey Plochocki, Ph.D.
University of Missouri
Assistant Professor

Pamela E. Potter, Ph.D.
Dalhousie University
Professor

Michael Quinlan, Ph.D.
Arizona State University
Associate Professor

D. Ellen K. Tarr, Ph.D.
The John Hopkins University
Assistant Professor

Beth Townsend, Ph.D.
Washington University
Assistant Professor

Erin Simons, Ph.D.
Ohio State University
Assistant Professor

Heather Smith, Ph.D.
Arizona State University
Assistant Professor

Jonathan Valla, Ph.D.
University of Texas at Austin
Assistant Professor

Johana Vallejo-Elias, Ph.D.
University of Missouri
Assistant Professor

Nagaraj Vinay Janthakahalli, Ph.D.
University of Basel, Switzerland
Assistant Professor

Linda M. Walters, Ph.D.
Loyola University, Stritch School of Medicine
Professor

Y. Gloria Yueh, Ph.D.
University of Connecticut
Professor

CLINICAL PSYCHOLOGY
Ruchi Bhargava, Ph.D.
Gallaudet University
Academic Clinic Coordinator
MISSION
The mission of Midwestern University Arizona College of Optometry is to educate future optometrists and residents in an interprofessional healthcare environment. The College fosters professional attitudes and behaviors that encourage lifelong learning and scholarship to serve the needs of the public and a commitment to improve the health and well-being of society.

VISION AND GOALS
The Arizona College of Optometry’s vision is to:

- Deliver the premier optometric education experience utilizing our unique multi-health professional setting and cutting edge technology.
- Provide our students with the knowledge and skills to deliver the highest level of professional, ethical and compassionate eye and vision care.
- Promote lifelong learning, community outreach and innovative research

The 10 goals of the Arizona College of Optometry (AZCOPT) are listed below:

- Provide broad and innovative educational opportunities in the basic, visual and clinical sciences
- Plan and develop a diversity of clinical experiences to allow students to enter the practice of optometry
- Support and nurture an environment of intellectual inquiry and activity by students, residents and faculty
- Promote interprofessional educational programming to develop students' appreciation of other health care professions
- Ensure that students have a strong basic and vision science foundation
- Promote student involvement in community service
- Develop a high quality residency program
- Establish an Eye Institute that serves the eye/vision care needs of the community
- Provide lifelong learning activities and support services to the optometric profession and the public
- Maintain the financial viability of the College

ACCREDITATION
The Midwestern University Arizona College of Optometry has been granted the accreditation classification of ACCREDITED as of April 24, 2013 by the Accreditation Council on Optometric Education (ACOE), of the American Optometric Association (AOA), 243 N. Lindbergh Blvd., St. Louis, MO 63141-7881; phone 314-991-4100. "Accredited" is the classification granted to a professional degree program that generally meets the standards for accreditation. This classification indicates that the program has no deficiencies or weaknesses that compromise the educational effectiveness of the total program.

Midwestern University is accredited by The Higher Learning Commission, A Commission of the North Central Association of Colleges and Schools, 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413; 800/621-7440.

DEGREE DESCRIPTION
AZCOPT awards the degree Doctor of Optometry upon successful completion of the four-year professional curriculum in optometry. The first and second years of the curriculum emphasize basic health sciences, optics and visual science and students are introduced to clinical practice in simulation laboratories, through introductory courses and clinical experiences. Visual consequences of disease are introduced in the second year. The third year, divided between a didactic and clinical setting, emphasizes the diagnosis and treatment of ocular dysfunction and disease. The fourth year is intensive clinical training that will include both on campus and off campus externship rotations. Clinical settings for external rotations may include military facilities, veteran administration hospitals, public health service hospitals, and specialty and/or private practices or clinics. The maximum time for degree completion is five years.

ADMISSIONS
AZCOPT considers for admission those students who possess the academic, professional, and personal qualities necessary for development as exemplary optometrists. AZCOPT uses multiple criteria to select the most qualified candidates including cumulative and prerequisites grade point averages (GPAs), Optometric Admission Test (OAT) scores, personal experiences and character, ability to communicate, familiarity
with the profession, volunteer/community involvement, research experience, and other considerations. AZCOPT uses a competitive, rolling admissions process.

**Admission Requirements**

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

1. A minimum cumulative GPA and science coursework GPA of 2.75 on a 4.00 scale.
2. A baccalaureate degree from regionally accredited institutions. A B.A. degree is acceptable but a B.S. degree is preferred.
3. Results of the Optometry Admission Test (OAT). Minimum Academic Average and Total Science scores of 300 are recommended of all applicants. In order to be considered for the class to be admitted in the Fall of each academic year, the OAT must be taken and results submitted by April 30th. OAT scores must be earned no more than 5 years prior to the planned enrollment year.
4. Necessary course prerequisites. All prerequisite courses must be completed with grades of C or better. Only courses designed for science majors or pre-professional students are acceptable for the science prerequisites.
5. Two letters of recommendation. One letter must be from a practicing optometrist. The other letter must be from a prehealth advisor, a science professor, an employer, or an extracurricular activity advisor.
6. A good understanding of optometric medicine. Candidates are strongly encouraged to shadow and observe a practicing optometrist in the clinical setting.
7. Extracurricular and/or community activities that indicate a well-rounded background and demonstrate a service orientation.
8. Interpersonal and communication skills necessary to relate effectively with others.
9. Passage of the Midwestern University criminal background check.
10. A commitment to abide by the Midwestern University Drug-Free Workplace and Substance Abuse Policy.

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**Prerequisite Courses**

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<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Biology with lab</td>
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<tr>
<td>Anatomy *</td>
<td>3</td>
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<tr>
<td>Physiology *</td>
<td>3</td>
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<tr>
<td>General/inorganic chemistry with lab</td>
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<td>Organic chemistry with lab</td>
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<td>English</td>
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* The Anatomy and Physiology requirements may also be fulfilled by taking Anatomy and Physiology I (3 Sem/4 Qtr hours) and Anatomy and Physiology II (3 Sem/4 Qtr hours)

The Doctor of Optometry degree program is rigorous and challenging. The Admissions Committee will therefore assess the quality and rigor of the pre-optometry academic records presented by applicants. When assessing an application, the Admissions Committee will view with concern applicants with:

1. Cumulative and science grade point averages below 3.00 on a 4.00 scale.
2. Academic Average and Total Science OAT scores below 300.
3. Prerequisite science coursework completed more than 10 years ago. More recent (within five years) math and science coursework is preferred.
International Applicants
An international student must complete a minimum of 30 semester hours of coursework from a regionally accredited college or university in the United States, or from a recognized post secondary Canadian institution that uses English as its primary language of instruction and documentation. Of the 30 semester hours, 15 hours must be in the sciences, 6 hours in non-remedial English composition, and 3 hours in speech/public speaking.

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
- Josef Silny & Associates International Education Consultants: 305/273-1616 or Fax 305/273-1338 (www.jsilny.com, e-mail: info@jsilny.com)

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

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

Application Process and Deadlines
Applicants are strongly encouraged to apply early in the cycle. Applications are considered on a first come first served basis only until all seats are filled.

1. OptomCAS Application
Applicants are required to submit online applications and application fees to OptomCAS by April 1st, 2015. In addition to the online application and application fees, an applicant must forward to OptomCAS official transcripts from all colleges and universities attended by the April 1 date. OptomCAS will begin the verification process as official transcripts are received, however an application will not be considered complete until all official transcripts are received.

Students must apply for admission via OptomCAS at www.opted.org or www.optomcas.org. Please refer to the OptomCAS application instructions for specific details about completing the OptomCAS application, required documents, and processing times. OptomCAS applications are available starting July 15th for applicants seeking admission in August of the following year. Due to the large number of applicants and the limited number of seats available, students are strongly encouraged to complete their OptomCAS application early in the cycle. AZCOPT will consider completed applications on a first-come, first-served basis until all seats are filled.

2. Optometry Admission Test (OAT)
Applicants must arrange for scores from the OAT to be sent directly to Midwestern University. Only test scores received directly from the testing agency will be accepted. OAT scores must be earned no more than 5 years prior to the planned enrollment year. This examination includes questions on biology, general chemistry, organic chemistry, physics, quantitative reasoning and reading comprehension. The test can be taken at numerous centers in the United States, Canada, and Puerto Rico. An examinee may take the examination up to four times during the year. Additional information on the OAT may be found at www.opted.org or in writing to:

Optometry Admission Testing Program
211 East Chicago Avenue, suite 600
Chicago, Illinois 60611-2678
800/232-2159

3. Letters of Recommendation
Applicants must submit two letters of recommendation from professionals to OptomCAS (www.optomcas.org). One letter must be from a practicing optometrist. The other letter must be from a prehealth advisor, a science professor, an employer, or extracurricular activity advisor. Letters of recommendation from relatives, personal and/or family friends are not acceptable.

4. Completed Application
All application materials, including the OptomCAS application, OAT scores (as reported to Midwestern University), and two letters of recommendation (as submitted to OptomCAS) must be received by the Office of Admissions on or before April 30th, 2015. 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 applications on the University website. The Office of Admissions will send qualified applicants instructions for checking the status of their application materials online.

Applicants are responsible for notifying the Office of Admissions of any changes in their mailing address or e-mail address.
Midwestern University
Office of Admissions
19555 North 59th Avenue
Glendale, AZ 85308
623/572-3215 or 888/247-9277
admissaz@midwestern.edu

Rolling Admissions
AZCOPT uses a rolling admissions process in which applications are processed and reviewed during regular intervals in the admissions cycle until the class is filled.

Interview Process
Before an invitation is issued to attend an on-campus interview, applicants must meet the admission requirements listed previously. After the Office of Admissions receives all required application materials, applicant files are reviewed to determine whether an applicant merits an invitation for an interview. Applicants may also be placed on a waiting list pending possible openings in a later part of the admissions cycle. Interviews are typically held between September and May. Invited applicants must attend an on-campus interview to achieve further consideration in the admissions process.

The on-campus visit, which includes an interview session, generally takes five hours. Each interviewee will meet with at least two interviewers. Applicants will be evaluated on verbal communication skills, understanding of the optometry profession, commitment to patient care, and other elements as determined by the College. Applicants will also learn more about Midwestern University, AZCOPT, financial aid programs, student services, and campus housing, as well as tour the Glendale Campus.

Following the interview, an applicant’s file will be forwarded to the Admissions Committee for review. The committee may recommend to accept, deny, or place students on an alternate list. Recommendations are then forwarded to the Dean for final approval. The Dean, via the Office of Admissions, notifies applicants of their status within two weeks of their interview date, provided that the file is complete.

Any request for withdrawal of an application must be made in writing.

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

The following abilities and expectations must be met by all students admitted to the College with reasonable accommodation. Candidates must have abilities and skills in five areas: 1) observation; 2) communication; 3) motor; 4) intellectual, conceptual, integrative, and quantitative; and 5) behavioral and social. Technological compensation can be made for some limitation in certain of these areas, but the candidates should be able to perform in a reasonably independent manner.

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is enhanced by the functional use of all of the other senses.
2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.
3. Motor: Candidates must be able to coordinate both gross and fine muscular movements, maintain equilibrium and have functional use of the senses of hearing, touch and vision. The candidate must possess sufficient postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.
4. Intellectual, Conceptual, Integrative and Quantitative Abilities: The candidate must be able to problem solve, measure, calculate, reason, analyze, record and synthesize large amounts of information in a timely manner. The candidate must be able to comprehend three-dimensional relationships and understand spatial relationships.
5. Behavioral and Social Attributes: The candidate must possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. Candidates must be able to tolerate physically, mentally and emotionally taxing workloads and to function effectively under stress. The candidate must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties. Compassion, integrity, concern for others, effective interpersonal skills, willingness and ability to function as an effective team player, and interest and motivation to learn are all personal qualities required during the educational process.

Candidates are required to 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 must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the College Dean, will identify and discuss what accommodations, if any, the College would need to make that would allow the candidate to complete the curriculum. The College is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of enrollment at the College.
Matriculation Process
The matriculation process begins after students receive notification of their acceptance. To complete the matriculation process, students must:

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined necessary by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

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

Transfer Admission Policy
AZCOPT may elect to accept transfer students from other U.S. accredited schools of optometry who are currently enrolled, are in good academic standing, and provide acceptable reason(s) for seeking transfer. Typically, students will transfer at the beginning of the second year of the curriculum.

Students requesting transfers must meet the College’s general requirements for admission. They must also submit the following:

1. A letter to the Director of Admissions outlining the reasons for requesting transfer and explaining any difficulties encountered at the previous institutions
2. Course syllabi for all optometry coursework for which advanced standing credit is requested
3. Official scores from the Optometric Admissions Test (OAT)
4. Official transcripts from all schools attended - undergraduate, graduate, and professional
5. A letter from the dean of the college in which the student is enrolled that describes current academic status and terms of withdrawal or dismissal
6. Additional documents or letters of recommendation as determined necessary by the Director of Admissions or Dean

Following receipt of these materials, a decision by the Dean is made regarding whether or not the student merits an on-campus interview. If the student receives an invitation, he/she interviews with an appropriate interview team. The interview team then makes an admissions recommendation to the Dean, who is responsible for approving both the student’s admissions status and class standing.

The transfer application must be received sufficiently early to allow for processing of the application, interview, and moving of the student prior to the start of the next academic term.

Graduation Requirements
To be eligible for graduation and to receive the degree Doctor of Optometry, the student must meet the following requirements:

- Follow an approved course of study acceptable to the College’s Student Promotion and Graduation Committee and leading to the completion of all academic requirements for the degree;
- Satisfactorily complete all academic requirements with a cumulative GPA of at least 2.00;
• Provide proof of passing Part I and of having taken Part II of the National Boards administered by the National Board of Examiners in Optometry (NBEO). It is the responsibility of the individual student to pass national board examinations. Proof of passage of Part I of the National Board of Examiners must be submitted to the Office of the Dean by January 5th of the year of graduation in order to be eligible to walk-through and participate in the graduation ceremony with their class and receive a diploma.

• In the event that a student does not pass NBEO Part I, the student may continue in the program. However, a student must pass NBEO Part I in order to graduate. If a student is scheduled to take NBEO Part I in March of the year of graduation, the student is eligible to walk through and participate in the graduation ceremony with their class, but will not receive a diploma until documentation is provided to show passage of NBEO Part I.

• In the event that a student is scheduled to take NBEO Part I in August of the year of graduation, the student is not eligible to walk through and participate in the graduation ceremony with their class. In this case, the student will be invited to participate in the graduation ceremony for a future year when the student satisfies all graduation requirements.

• Be recommended for conferral of the degree Doctor of Optometry by the University Faculty Senate;

• Settle all financial accounts with the University; and

• Complete all graduation clearance requirements as instructed by the Office of the Registrar.

LICENSURE REQUIREMENTS
To obtain licensure, graduates must have completed the requirements established by each state or national licensing board. Licenses require successful passage of the National Board Examinations and may require the passage of an additional state licensing exam. Postdoctoral requirements may vary among states. The National Board of Examiners in Optometry (NBEO) administers complete integrated examinations in three parts that reflect the different stages of a candidate’s optometric education and training. Part I covers Applied Basic Science, Part II covers Patient Assessment and Management, and Part III covers Clinical Skills. Part I is two days in length; Part II and III are each 1 day in length. The earliest date for a student candidate to take the Part I examination is March of the third professional year at an accredited institution. A Board Review Course is incorporated into the curriculum to help the student prepare for Part I. The earliest date for a candidate to take the Part II examination is in December during the candidate’s fourth year at an accredited institution. Materials are available in the curriculum to assist the student in the preparation for Part II. All students are required to pass Part I and to take Part II of the National Board of Examiners in Optometry to graduate and must provide proof of such. It is the responsibility of the individual student to pass national board examinations. Students are eligible to take the Part III examination at the conclusion of their third year or at any time throughout their fourth year. For additional information regarding licensure, contact the website, www.optometry.org or National Board of Examiners in Optometry 200 S. College Street, #2010 Charlotte, NC 28202 Phone: 800-969-EXAM(3926) or 704-332-9565 Fax: 704-332-9568 E-mail: nbeo@optometry.org

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

First Year
Total Quarter Credit Hours Required: 63

Fall Quarter
BASI 1501 Basic Science Integrated Sequence I 4.5
BASI 1502 Basic Science Integrated Sequence I 4.5
BASI 1503 Basic Science Integrated Sequence I 4.5
CORE 1560 Interdisciplinary Healthcare 0.5
OPTO 1510 Clinical Services, Theory & Methods I 3
OPTO 1511 Contemporary Issues in Health Care and Ethics 0.5
OPTO 1522 Optometry Business Management I 2
Total 19.5

Winter Quarter
BASI 1504 Basic Science Integrated Sequence IV 3
BASI 1505 Basic Science Integrated Sequence V 5
BASI 1506 Basic Science Integrated Sequence VI 5
CORE 1570 Interdisciplinary Healthcare 0.5
OPTO 1520 Clinical Services, Theory & Methods II 3
OPTO 1540 Geometrical and Physical Optics I 4

232
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<td>BASI 1507</td>
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<td>OPTO 1623</td>
<td>Optometry Business Management II</td>
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<td>OPTO 1720</td>
<td>Diagnosis and Management of Non-strabismic Disorders of Accommodation, Binocular Vision, and Eye Movements</td>
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<tr>
<td>OPTO 1785</td>
<td>Visual Rehabilitation</td>
<td>3</td>
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<tr>
<td>OPTO 1787</td>
<td>Neuro-ophthalmic Disease</td>
<td>2</td>
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<tr>
<td>OPTO 1790</td>
<td>Clinical Case Analysis I/Evidence Based Medicine</td>
<td>2</td>
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<td><strong>Total</strong></td>
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<td>18.5</td>
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<td><strong>Winter Quarter</strong></td>
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<tr>
<td>OPTO 1723</td>
<td>Treatment and Management of Strabismus and Amblyopia</td>
<td>3</td>
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<tr>
<td>OPTO 1725</td>
<td>Pediatric Optometry</td>
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OPTO 1772 Clinical Services IX 7.5
OPTO 1780 Board Review: Applied Basic Science 3
OPTO 1792 Clinical Case Analysis II/Evidence Based Medicine 2

Total 16.5

Spring Quarter
OPTO 1724 Optometry Business Management III 2
OPTO 1726 Visual Information Processing, and Vision Related Learning Problems 3
OPTO 1745 Epidemiology, Public Health and the Optometric Profession 2
OPTO 1761 Capstone Project Poster Session 3
OPTO 1773 Clinical Services X 7.5

Total 17.5

Fourth Year
Total Quarter Credit Hours Required: 72

Summer Quarter
OPTO 1800 Clinical Services XI 18

Total 18

Fall Quarter
OPTO 1810 Clinical Services XII 18

Total 18

Winter Quarter
OPTO 1820 Clinical Services XIII 18

Total 18

Spring Quarter
OPTO 1830 Clinical Services XIV 18

Total 18

Professional Electives
During their enrollment at AZCOPT, students may choose to take elective courses for enrichment. No minimum number of elective credits is required for graduation. Elective options may include, but are not limited to, the following:

OPTO 1682 Selected Studies A-D 1-3
OPTO 1751 Study Skills Enhancement 2
OPTO 1794 Third Year Clinical Skills A-D Enhancement 1-7.5

Total

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.

BASI 1501 Basic Science Integrated Sequence I
BASI 1501 provides an overview of cell structure and function, including topics on molecular cell biology, metabolism, epithelium, general connective tissues, and blood. Module 1: Cell Biology outlines the basic histological structure and biochemical function of the cell. Module 2: Molecular Cell Biology and Metabolism focuses on transcription, translation, control of gene expression, and normal cell metabolism. Module 3: Epithelium, General Connective Tissues, and Blood defines the basic structure, function and biochemical characteristics of two basic histological tissues: epithelium and connective tissue. This module also includes an introduction to peripheral blood cells and hematopoiesis. The biochemical basis of hemostasis is described. Disorders of hemostasis and their consequences are discussed.

4.5 credits

BASI 1502 Basic Science Integrated Sequence II
BASI 1502 provides an overview of cancer, genetics, lymphatic system and immunology. In Module 4: Cancer and Genetics, emphasis is placed on DNA mutations, polymorphisms, patterns of inheritance in human diseases, cytogenetics, and molecular basis of cancer. Module 5: Lymphatic System and Immunology, includes gross anatomy and histology of the lymphatic system and structure/function of the immune system. Basic precepts of the lymphatic system and immunology will be applied to inflammation, tissue repair and healing. Understanding of immunology will be applied to immune responses to infectious agents. Also included are: development and pathology of immunologically-mediated diseases, immune responses to transplants, cancer, HIV infection, and therapeutic use of drugs affecting the immune system.

4.5 credits

BASI 1503 Basic Science Integrated Sequence III
BASI 1503 provides an overview of infectious diseases, integument and blood disorders. Module 6: Introduction to
Infectious Diseases provides fundamental understanding of basic concepts in microbiology to accurately identify and manage infectious diseases. The information will aid in the management of the patient’s health and general well-being. In Module 7: Integument and Blood Disorders, students combine their knowledge of epithelium, connective tissue, and peripheral blood to learn the basic structure and function of the integument. This module further describes common infections and pathologies of the integument as well as blood-borne infections and blood disorders.

4.5 credits

BASI 1504 Basic Science Integrated Sequence IV
BASI 1504 provides an overview of the Musculoskeletal System (Module 8). Module 8 includes: the basic concepts of embryology, an introduction to gross anatomy, the structure and function of skeletal and smooth muscle and the development of bone and cartilage. Muscle membrane excitability and the molecular basis of muscle contraction are discussed. Diseases of bone and soft tissues are included. This module contains lectures and two laboratory sessions that describe upper extremity anatomy and function.
3 credits

BASI 1505 Basic Science Integrated Sequence V
BASI 1505 provides an overview of the structure and function of the nervous system and is composed of one module titled Nervous System (Module 9). This module begins by discussing the nervous system in terms of its organization, support systems, and structure including the histology of nervous tissue, brain biochemistry, and mechanisms of neurotransmission including development of action potentials and synaptic transmission. This is followed by nervous system development, and then descriptions of the structure and function of the somatosensory pathways, descending motor systems, auditory, vestibular, and visual systems, and finally finishing with the cerebral cortex. Common clinical concerns are also discussed including relevant microbiology and pathology.
5 credits

BASI 1506 Basic Science Integrated Sequence VI
BASI 1506 provides an overview of the structure and function of the Cardiovascular (Module 11) and Respiratory Systems (Module 12). Module 11: Cardiovascular System begins with a discussion of the anatomy, histology, and embryological development of the heart and circulatory system. Other topics included are cardiac muscle function, electrophysiology of cardiac muscle, cardiac cycle, and cardiac performance. Control of cardiovascular function integrates discussions of hemodynamics, regional circulation, and arterial blood pressure. Module 12: Respiratory System discusses the anatomy and histology of the respiratory system, mechanics of breathing, gas transport, and regulation of respiration. Relevant topics in microbiology, pathophysiology, and pathology are described in both modules.
5 credits

BASI 1507 Basic Science Integrated Sequence VII
BASI 1507 provides an overview of the Endocrine System (Module 13) and the Gastrointestinal (GI) System (Module 14) In Module 13 the disciplines of histology and physiology describe the basic structure and normal function of the Endocrine System. Topics discussed include the hypothalamic control of endocrine secretion and regulation of individual endocrine organs. Common disorders of the Endocrine System are discussed by the pathology faculty. Module 14 Gastrointestinal System includes topics such as: chewing, swallowing and digestion. The gross anatomical, histological, physiological, microbiological, and pathological aspects of the GI system are discussed.
4 credits

BASI 1508 Basic Science Integrated Sequence VIII
BASI 1508 provides an overview of the Urogenital System (Module 15). Topics included in the first part of the module are: the anatomy of the urogenital system, histology of the urinary system, renal tubular transport mechanisms, the production of urine, the control of extracellular fluid volume, and acid/base balance. The second part of the module provides an overview of the structure and function of the Male and Female Reproductive Systems. Diseases of the urogenital system are discussed.
3 credits

BASI 1509 Basic Science Integrated Sequence IX
BASI 1509 provides an overview of the Gross Anatomy of the Head and Neck (Module 16). This module provides instruction in the fundamental head and neck gross anatomy information required for clinical training. Three-dimensional relationships among anatomical structures are reinforced by in-depth dissections of the head and neck. Students are expected to use this anatomical information to elucidate and solve case-based problems commonly seen in clinical practice. Student dissection of the head and neck is performed under faculty supervision during three 3-hour laboratories per week.
4.5 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or
group assignments may also be incorporated.  
Each course 0.5 credits

**OPTO 1510, 1520, 1530 Clinical Services, Theory & Methods I, II, III**  
This course sequence is an introduction to the theory and procedures that structure the examination of the eye. This includes instrumentation, examination methods, psychophysical techniques, appropriate patient instructions, protocols and recording of findings. Instruction is provided to foster progressive development of basic examination techniques including, but not limited to, medical and ocular history, visual acuity, color vision, cover test, depth perception, pupillary and visual pathways, external ocular examination, retinoscopy and refraction, and ophthalmoscopy.  
Each course 3 credits  
Prerequisites:  
- Prerequisites for OPTO 1520 Clinical Services, Theory & Methods II: OPTO 1510 Clinical Services, Theory & Methods I  
- Prerequisites for OPTO 1530 Clinical Services, Theory & Methods III: OPTO 1520 Clinical Services, Theory & Methods II  

**OPTO 1511 Contemporary Issues in Health Care and Ethics**  
This course introduces students to the current issues faced by providers of primary eye care as well as ethical precepts that serve as foundations to providing health care to the public. Included is the history of optometry, the ethics and code of honor expectations of a professional program student, and the dynamic role of optometry in present day health systems.  
0.5 credits

**OPTO 1522 Optometry Business Management I**  
This course surveys the profession of optometry up to present day, provides details about planning for personal, professional and financial goals, managing debt, and building credit worthiness to prepare for professional life. Optometric career choices, modes and scope of optometric practice, as well as the advantages and disadvantages of the various paths are discussed. Emphasis is placed on the steps that should be initiated to prepare for a professional career.  
2 credits

**OPTO 1540, 1550 Geometrical and Physical Optics I, II**  
The course sequence provides an introduction to the qualitative and quantitative characterization of the behavior of light and optical systems as related to optometry. In Geometrical Optics, the basics of refraction at plane and spherical surfaces, image formation and magnification, spherical and spherocylindrical thin lenses, thin lens eye models, thick lenses, prisms, reflection and mirrors will be presented. Physical Optics presents conceptual and quantitative understanding of aberrations, characteristics of electromagnetic waves, diffraction, interference, fluorescence, polarization, scattering, photometry, lasers, and other applications.  
Each course 4 credits  
Prerequisites:  
- Prerequisite for OPTO 1550 Geometrical and Physical Optics II: OPTO 1540 Geometrical and Physical Optics I

**OPTO 1560 Ocular Anatomy**  
The course presents a detailed discussion of ocular gross and microscopic anatomy as a basis for understanding systemic and ocular pathophysiology as well as some anomalies of monocular and binocular visual processes. A general review of histology is presented as background for an intensive consideration of the microscopic anatomy of the normal eye. The course is presented through a lecture and workshop format.  
2 credits

**OPTO 1580 Ocular Physiology**  
The course allows the student to understand and appreciate the physiology and pathophysiology of the tissues and physiological units of the eye including the eyelids, ocular tear film, cornea, aqueous humor, iris, lens, vitreous, retina and the visual pathways. Students will gain an understanding of the relationship of ocular physiology to ocular pharmacology and ocular pathophysiology.  
2 credits  
Prerequisites: OPTO 1560 Ocular Anatomy

**OPTO 1620 Visual Science: Monocular Sensory Processing**  
The basic aspects of monocular vision, including light and dark adaptation, color vision, spatial and temporal resolution will be discussed. Gross electrical potentials and photometry will be explained. Students will learn how to measure visual performance and understand its application to clinical optometry.  
3 credits

**OPTO 1622 Visual Science: Ocular Motility**  
This course focuses on characteristics, control, and deficits of the five somatic eye movement systems (convergence, saccadic version, pursuit, version, fixation maintenance, vestibular reflex) and the autonomic systems subserving accommodation, pupillary diameter and reflexes. The physiology of the extraocular muscles and their relationship to strabismus is included in the course.  
2 credits

**OPTO 1623 Optometry Business Management II**  
The emphasis of this course is on enhancing a student’s interpersonal skills and professionalism as part of patient care. Using a lecture/workshop format, emphasis is placed on the ethical implications of professional practice. Doctor/patient communication methods, practice marketing, patient retention, office production and benchmarking are presented. Clinico-legal aspects from record keeping, patient
confidentiality, documentation, coding and billing, record release, and Americans with Disabilities Act (ADA) issues are also covered.

2 credits

OPTO 1624 Visual Science: Binocular Vision
Students will learn about binocular sensory mechanisms of vision. This course will focus on the geometry of space and stereovision, and the underlying neuroanatomy and physiology of binocular vision. This course will include a discussion of the horopter, retinal correspondence, stereopsis, fusion, fixation disparity, rivalry and aniseikonia.

4 credits

OPTO 1625 Visual Optics
This course considers the eye as an optical system, including schematic eye models, refractive error, optical characteristics of the eye, stimulus to accommodation, retinal image size and quality, purkinje images, entoptic phenomena, presbyopia, aphakia, intraocular implants and effects of radiation.

2 credits

Prerequisites: OPTO 1550 Geometrical and Physical Optics II

OPTO 1630, 1632 Ophthalmic Optics I, II
This course sequence covers the study of the physical and optical characteristics of ophthalmic lenses and prisms; the design and application of single vision, multifocal, occupational and progressive lens; the benefits and applications of ophthalmic lens materials, absorptive lenses, and lens treatments; and the proper measurement and fitting of ophthalmic lenses and frames.

Each course 4 credits

Prerequisites:
- Prerequisite for OPTO 1630 Ophthalmic Optics I: OPTO 1550 Geometrical and Physical Optics II
- Prerequisite for OPTO 1632 Ophthalmic Optics II: OPTO 1630 Ophthalmic Optics I

OPTO 1640, 1642, 1644 Ocular Disease I, II, III
This course sequence covers signs and symptoms, pathophysiology, clinical course, differential diagnosis, treatment and management of ocular diseases of the anterior and posterior segment of the eye and ocular adnexa.

Each course 3 credits

Prerequisites:
- Prerequisites for OPTO 1640 Ocular Disease II: OPTO 1640 Ocular Disease I
- Prerequisites for OPTO 1644 Ocular Disease III: OPTO 1642 Ocular Disease II

OPTO 1648, 1649, 1740 Contact Lens I, II, III
This course sequence includes a discussion of the theory and practice of contact lens design and contact lens fitting methodologies. Areas of discussion include corneal topography, design of materials, fabrication and modification of contact lenses, fitting and evaluation methodologies and procedures. This course sequence will also explore advanced contact lens applications for high and irregular astigmatism, keratoconus, presbyopia, post-surgical and irregular corneas, corneal reshaping, and ocular prosthetics.

Each course 3 credits

Prerequisites:
- Prerequisite for OPTO 1649 Contact Lens II: OPTO 1648 Contact Lens I
- Prerequisite for OPTO 1740 Contact Lens III: OPTO 1649 Contact Lens II

OPTO 1650, 1652, 1654 Clinical Services, Theory & Methods IV, V, VI
This course sequence covers instrumentation, examination methods, psychophysical techniques, appropriate patient instructions and communication skills, protocols, and recording of findings. Instruction is provided to foster progressive development of basic examination techniques and assessment of binocular skills and ocular health. Students must successfully complete a proficiency examination at the end of each course before progressing into the next course in the sequence.

Each course 3 credits

Prerequisites:
- Prerequisites for OPTO 1650 Clinical Services, Theory & Methods IV: OPTO 1550 Geometrical and Physical Optics II
- Prerequisites for OPTO 1652 Clinical Services, Theory & Methods V: OPTO 1630 Ophthalmic Optics I
- Prerequisites for OPTO 1654 Clinical Services, Theory & Methods VI: OPTO 1650 Clinical Services, Theory & Methods V

OPTO 1655 Clinical Services Proficiency
The objective of this course is to assess and verify the optometry student’s level of competency in primary care optometry patient care skills. The course is designed to refine clinical procedures and culminates in a comprehensive clinical skills proficiency examination. Successful completion of this course qualifies the student to enter the Clinical Services VII – X course sequence.

1 credit

Prerequisites: OPTO 1652 Clinical Services, Theory and Methods V

OPTO 1670 Research Design and Biostatistics
Principles of research design and the application of biostatistical methods will be discussed. The course will include an overview of potential studies that the student may choose for their capstone project.

1 credit

OPTO 1672 Capstone Project: Literature Search and Study Design
The student will decide on a project hypothesis, conduct a literature search and design the study. The project may be an
extensive literature review, a series of clinical cases or an experiment of basic or clinical research design under the mentorship of a faculty member.

1 credit

OPTO 1675 Visual Neurophysiology
This course presents a discussion of the neurophysiological aspects of vision. Basic neurophysiological principles will be reviewed as well as retinal anatomy as a basis for understanding ocular visual neuro-pathophysiology to allow for a better understanding of some anomalies of monocular and binocular visual processes.

2 credits

OPTO 1691 Ocular Pharmacology
This course focuses on the pharmacology of diagnostic and therapeutic agents. Specific topics include pharmacokinetics of the eye, use of autonomic agents, anti-allergic, anti-inflammatory and anti-infectious agents, and agents used to treat glaucoma. In addition, ocular effects of systemic medications will be presented.

2 credits
Prerequisites: PHAR 1601, 1621 General Pharmacology I, II

OPTO 1700 Clinical Medicine/Physical Assessment Laboratory
This course is a multidisciplinary course that is team taught by faculty from various Midwestern University colleges and demonstrates the importance of the interdisciplinary approach as related to eye and vision care. This course is designed to provide a foundation for taking a medical history, performing a physical (H&P), evaluating the head, neck and pulmonary functions while covering various systems of the body (dermatology, rheumatology, pediatrics, and neurology). Ocular, subcutaneous, intra muscular and intravenous injections are a prominent aspect of the course as well as suturing, wound maintenance and autologous serum laboratories.

3 credits

OPTO 1720 Diagnosis and Management of Non-strabismic Disorders of Accommodation, Binocular Vision, and Eye Movements
This course reviews the common non-strabismus diagnoses of accommodation, binocular vision, and eye movements. Specialized testing techniques will be presented as they relate to these diagnoses including tests of accommodative function, heterophoria, fixation disparity, associated phoria, graphical analysis, and various measures of eye movement skills. Appropriate therapies for these diagnoses such as lenses, prisms, and vision therapy will be outlined, and applications to sports-related visual skills will be discussed.

4 credits
Prerequisites: OPTO 1624 Visual Science: Binocular Vision

OPTO 1722 Diagnosis of Strabismus and Amblyopia
This course will emphasize the principles and techniques of evaluating patients presenting with strabismus and amblyopia. An organized approach to a comprehensive evaluation is presented with an emphasis on the administration and interpretation of diagnostic testing procedures including the assessment of associated anomalies such as eccentric fixation, comitancy and anomalous correspondence.

4 credits
Prerequisites: OPTO 1720 Diagnosis and Management of Non-strabismic Disorders of Accommodation, Binocular Vision, and Eye Movements

OPTO 1723 Treatment and Management of Strabismus and Amblyopia
This course presents theoretical and clinical considerations in the management of strabismus and amblyopia including the rationale and methods for using lenses, prisms, occlusion, vision therapy, medication, and surgical referrals. Associated anomalies are discussed in terms of their significance and management.

3 credits
Prerequisites: OPTO 1722 Diagnosis of Strabismus and Amblyopia

OPTO 1724 Optometry Business Management III
This course is designed to provide educational information and exercises that facilitate the acquisition of knowledge and skills necessary for entering optometric practice. Students will be taught modern business principles and be able to select their preferred mode of practice. The desired outcome of the course is that the student will be able to select and take the steps needed to enter the best practice for their individual needs and future goals.

2 credits

OPTO 1725 Pediatric Optometry
This course will focus on an understanding of vision development, as well as the utilization of diagnostic procedures that are developmentally appropriate. Diagnostic strategies for examining the infant, toddler, and pre-schooler will be presented. Application of pediatric tests for special needs patients and the diagnosis and management of vision problems and pathology commonly affecting this population will be discussed.

1 credit
Prerequisites: OPTO 1723 Treatment and Management of Strabismus and Amblyopia

OPTO 1726 Visual Information Processing, and Vision Related Learning Problems
This course will focus on visual information processing testing and give students an organized approach to identify deficits that may have an impact on reading and learning. A multidisciplinary approach to the management of learning problems will be presented. This course will provide the doctrine behind standardized testing. In addition, an
overview of learning disabilities and dyslexia will be presented. A sequential management plan will be introduced for treating patients with visual processing disorders.

Introduction to Acquired Brain Injury (ABI) and subsequent testing and training will be used to familiarize the student with current treatment options for ABI.

3 credits
Prerequisites: OPTO 1725 Pediatric Optometry

OPTO 1745 Epidemiology, Public Health and the Optometric Profession
This course is an introduction to the epidemiology of ocular anomalies, overview of public and community health planning and care, and the role of the optometrist in community health promotion.

2 credits

OPTO 1760 Capstone Project: Data Collection and Analysis
This course is a continuation of OPTO 1672. The student will further develop the capstone project, collect the data and perform statistical data analysis on data results.

1 credit

Prerequisites: OPTO 1672 Capstone Project: Literature Search and Study Design

OPTO 1761 Capstone Project Poster Session
Beginning in the second year, students will develop the skills to design a project and perform statistical analysis of data. The project may be an extensive in depth literature review, a series of clinical cases or experiments of basic or clinical research. Students will be mentored by a faculty member and devote a year to conduct the necessary literature review and collect data. Finally, students will present their manuscript in a publishable format, and deliver a public presentation of the work during the spring of their third professional year.

3 credits

Prerequisites: OPTO 1770 Clinical Services VII, VIII, IX, X

The student will provide primary eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, vision therapy, sports vision, and ocular prosthetics) at the Midwestern University Eye Institute or at selected external clinical sites. This course series focuses on progressive competence in the diagnosis, treatment and management of visual dysfunctions and ocular conditions. Students will participate in case based clinical seminars as well.

Each course 7.5 credits

Prerequisites:
- Prerequisites for OPTO 1770 Clinical Services VII: OPTO 1654 Clinical Services, Theory & Methods VI, and OPTO 1655 Clinical Services Proficiency
- Prerequisites for OPTO 1771 Clinical Services VIII: OPTO 1770 Clinical Services VII

- Prerequisites for OPTO 1772 Clinical Services IX: OPTO 1771 Clinical Services VIII
- Prerequisites for OPTO 1773 Clinical Services X: OPTO 1772 Clinical Services IX

OPTO 1780 Board Review: Applied Basic Science
This is a review course in preparation for Part I (Applied Basic Science) of the National Board of Examiners in Optometry.

3 credits

OPTO 1785 Visual Rehabilitation
Visual Rehabilitation is an entry level course, which presents the fundamental knowledge of clinical low vision care and rehabilitation necessary to perform basic low vision examinations during the fourth year clinical rotation, and in a practice setting after graduation. This course is an overview of the strategies for visual rehabilitation examination of patients with visual impairments, neurological issues following traumatic brain injury, and the geriatric population in general.

3 credits

OPTO 1787 Neuro-ophthalmic Disease
The diagnosis and management of neuro-ophthalmic diseases and ocular manifestations of neurological systemic diseases are discussed. Components of the neuro-ophthalmic examination, neuroimaging, and specialty testing are presented.

2 credits

OPTO 1790 Clinical Case Analysis I/Evidence Based Medicine
Case presentations from the college clinic or optometric literature that introduce clinical diagnosis, treatment and management of patients using evidence-based clinical protocols will be the focus.

2 credits

OPTO 1792 Clinical Case Analysis III/Evidence Based Medicine
The course will present the diagnostic and treatment strategies for common ocular emergencies ranging from minimal trauma to sudden vision loss. Students will gain skills in practicing evidence-based medicine in the management of ocular disease.

2 credits

OPTO 1800, 1810, 1820, 1830 Clinical Services XI, XII, XIII, XIV
The fourth professional year is designed to promote continued development of the student’s emerging clinical problem-solving abilities. This is a series of full-time clinical rotations or externships. Direct patient care in individualized supervised clinical experiences is the focus. Interns will provide eye care services in the Primary Care and Specialty Services (cornea and contact lenses, ocular disease, pediatric optometry, low vision rehabilitation, electro-diagnosis, vision...
therapy, sports vision and ocular prosthetics) at the Midwestern University Eye Institute or at selected external rotation sites. Clinical decision making will be enhanced through challenging patient care problems that highlight or emphasize differential diagnosis, management decisions, referral decisions and follow-up, as well as address newer techniques and procedures for diagnosis and management. This course is comprised of patient care experiences as well as a seminar series presented weekly during each fourth year clinical rotation in the Eye Institute.

Each course 18 credits
Prerequisites:

- Prerequisites for OPTO 1800 Clinical Services XI: OPTO 1773 Clinical Services X
- Prerequisites for OPTO 1810 Clinical Services XII: OPTO 1800 Clinical Services XI
- Prerequisites for OPTO 1820 Clinical Services XIII: OPTO 1810 Clinical Services XII
- Prerequisites for OPTO 1830 Clinical Services XIV: OPTO 1820 Clinical Services XIII

PHAR 1601, 1621 General Pharmacology I, II
These courses place an emphasis on the physical and chemical properties of the drugs, dosages, and therapeutic effects, methods of administration and indications/contraindications for the use of the drug.

Prerequisites:

- Prerequisites for PHAR 1601 General Pharmacology I, 3 credits: no prerequisite
- Prerequisites for PHAR 1621 General Pharmacology II, 4 credits: PHAR 1601 General Pharmacology I

ELECTIVES
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.

OPTO 1682A-D Selected Studies
This course allows students to pursue their special interests. This may include writing of abstracts or a review of current vision science literature. This may be repeated for credit with permission of the instructor.
1-3 credits
Prerequisites: Permission from the course director

OPTO 1751 Study Skills Enhancement
This course allows students to understand and apply test taking strategies in order to increase their success in professional studies.
2 credits
Prerequisites: Permission from the course director

OPTO 1794A-D Third Year Clinical Skills Enhancement
Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course.

This course may be repeated for credit.
1-7.5 credits
Prerequisites: Permission from the course director

OPTO 1796 Spanish for Optometric Eye Exams
Students develop basic communication skills in Spanish. This course emphasizes the vocabulary associated with the optometric examination. This course is for students with minimal knowledge of the Spanish language.
1.5 credits
Prerequisites: Permission from the course director

OPTO 1797 Sports Vision Workshop
This course presents the basics of sports vision evaluation and therapy. The steps involved in performing a comprehensive sports vision examination as well as techniques to evaluate visual performance in sports will be discussed and demonstrated. Different considerations for sports vision will be discussed, including: refractive compensation, prevention and management of ocular injury, assessment and remediation of functional vision inefficiencies, assessment of sports-specific visual abilities, vision enhancement training techniques, and sports vision consultation. This is a lecture/workshop course design.
1.5 credits
Prerequisites: Permission from the course director

OPTO 1895A-D Fourth Year Clinical Skills Enhancement
Individualized supervised clinical experiences to enhance the examination skills of students are the focus of this course. This course may be repeated for credit.
1-18 credits

OPTO 1896 Advanced Specialized Test Interpretation
This course is designed to augment the basic education on specialty test indications and their results. This course will explore image acquisition, interpretation, clinical correlates and their application to patient care.
1 credit
Prerequisites: Permission from the course director

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.
**Student Promotion and Graduation Committee**

The Student Promotion and Graduation Committee (SPGC) is responsible for enforcing the published academic and professional standards established by the faculty and for assuring that they are met by all students enrolled in each program. As such, this Committee establishes the criteria and policies and procedures for student advancement and graduation, as well as academic probation, dismissal, and readmission. This Committee meets at a minimum at the end of each academic quarter to review the academic progress and performance of students enrolled in the program in relation to institutional academic policies. At the end of the academic year, the Committee assesses the academic and professional progress and performance of each student. If the student’s progress is satisfactory, the student is promoted to the next academic year, provided all tuition and fees have been paid. Finally, the Committee also identifies and recommends to the MWU Faculty Senate candidates for graduation.

If a student fails to make satisfactory progress in completing the prescribed course of study, the Committee shall take appropriate action to correct the deficiency (ies). In instances involving repeated failures of a student to maintain satisfactory academic/professional progress, the Committee may recommend dismissal.

If a student’s academic performance is scheduled for discussion during a Student Promotion and Graduation Committee meeting and the result could change the student’s status in the college (extended program or dismissal), then the student will be invited to either appear personally before the committee or submit a letter or documentation to be presented at the meeting on their behalf. The invited students must indicate, in writing, their intention to appear or provide their materials 24 hours prior to the scheduled meeting to the Associate Dean of Academic Affairs. The information will be provided to the Chair and committee members of the SPGC.

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

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. repeat the course(s) in which there is a failure when the course is offered again in the curriculum;
   d. be placed in an extended program; or
   e. be dismissed from the College.

Within two working days following the Committee Meeting, the Associate Dean is responsible for providing notification in writing with a delivery confirmation (i.e., next-day express mail, e-mail, or hand-delivery) to the involved student, informing him/her of the recommendation of the Committee. The Associate Dean is responsible for reviewing all recommendations for consistency with stated College academic policies and practices. The Dean or Associate Dean is responsible for providing written notification to all appropriate academic support offices (i.e., Registrar, Student Financial Services, etc.).

**Academic Standards**

An annual didactic grade point average will be used as the central measure of academic performance. It is calculated from all didactic and clinical courses from a particular professional year. Grades earned in courses taken prior to matriculation in the professional program, grades earned for courses taken at another institution while enrolled in the professional program, and grades earned for courses taken at the College in a more advanced professional year than that in which the student is enrolled, are not included in the calculation of this annual grade point average.

Students must maintain an annual grade point average of 2.00 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/WF” in one or more courses, the student is notified, in writing that he/she is being placed on academic probation for the next academic quarter. Probation represents notice that continued inadequate academic performance may result in dismissal from the program and the College.

If the student has an annual grade point average less than 2.00 at the end of an academic year, or has earned one or two “F/WF” grades in a quarter the student will be either dismissed or will be placed in an extended program (academic deceleration). The extended program year must take place in the year immediately following and the student will be required to repeat all the courses in which the grades of “F/WF” were received. A student is allowed to go through an extended program only once. 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 reenters the next professional year curriculum and resumes a full load. A reentering student must achieve a cumulative grade point average of 2.00 at the end of each quarter to continue at AZCOPT.

If the student does not meet the criteria for satisfactory academic performance at the end of the extended program, he/she will be dismissed.

If the student earns an “F/WF” in three or more courses overall, and/or fails a repeated course, the student will be dismissed from the College. The dismissal is based on the determination by the Committee that the student has not satisfactorily demonstrated that 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.

Academic recommendations are made by the Student Promotion and Graduation Committee to the Associate Dean of Academic Affairs. Students will be notified, in writing, within two working days following the committee meeting regarding the recommendations of the Committee.

The following policies also guide decisions made by the Student Promotion and Graduation Committee:

1. A student must pass all required courses before entering the next year of the professional program.
2. Students must successfully resolve all "I" (Incomplete) grades before beginning externship.
3. To proceed with externship, a student must earn an annual didactic grade point average (GPA) of at least 2.00 for the third professional year.
4. In the event that a student does not pass NBEO Part I, the student may continue in the program. However, a student must pass NBEO Part I in order to graduate.

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. A narrative explaining the basis of the appeal should accompany the request. An appeal must be based on one of the following premises:

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

The Dean will review the appeal request and narrative and decide if there is sufficient information to convene a meeting of the Student Promotion and Graduation Committee, which would be asked to provide a recommendation to the Dean on the appeal request. Once a decision is made to convene a Committee meeting, the student requesting an appeal shall be notified in writing with a delivery confirmation (i.e., e-mail or hand delivery) by the Associate Dean at least two working days in advance of the scheduled Committee meeting in which the student's appeal will be heard. The student may request and shall be permitted to appear before the Committee (in person or via telephone) in order to present his/her case. In such instances, the student shall inform the Associate Dean in writing (i.e., e-mail or hand delivery) of his/her desire to appear before the Committee or his/her intent to waive the right. If the student chooses to appear before the Committee, this prerogative extends to the involved student only and not to any other individuals. The Committee submits its recommendation to the Dean. Upon receipt of the Committee's recommendation, the Dean makes the final decision, typically within ten working days.

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.

Externship Failure (refers to OPTO 1800, 1810, 1820, and 1830 Clinical Services XI-XIV)
Externships are completed sequentially. If a student receives an "F/WF" in an externship he/she may appeal the failing grade, in writing, to the course director. This must be within 3 calendar days after the grade is posted. In this case the course director will review the premise of the failure and the college policies regarding course failures. After consideration of the circumstances of the "F/WF", the course director will either accept or reject the appeal and must inform the student, in writing, within 5 working days of this decision. If the appeal is accepted the course director may place the student on an individualized education plan (IEP) under the direction of the course director and may require that the student take coursework. The course director’s options are not limited to the above and can be modified on a case-by-case basis. If the course director decides to uphold the "F/WF", the matter will be forwarded to the Student Promotion and Graduation Committee who may exercise any combination of the following sequence:

1. Place the student in an extended program, if eligible;
2. Put the student on a leave of absence to undergo a period of independent study;
3. Require the student to repeat the failed externship rotation; or
4. Be dismissed from the program.

If a student receives an "F/WF" in an externship he/she may also petition the course director, in writing, to retake the same type of externship, if available. This petition must be filed within 3 working days of the failing grade being posted. The timing of any reassignment will be as early as possible once the student has satisfied the committees requirements or concurrent completion with reassignment and is subject to availability of as sites as determined by the College. The reassignment, if granted, must be completed within 12 calendar months of the date the petition is received by the course director. If the student does not successfully complete the assigned options or receives an "F/WF" in the reassigned or repeated externship he/she will be dismissed from the program. Students are allowed only one failed or withdrawn
The conditions must be met:

### Extended Program

Problems may arise that may necessitate the deceleration of a student’s academic course load. Accordingly, an individual’s academic course load may be reduced so that the student enters what is termed an extended program or split academic course of study. Such a program rearranges the course schedule so that the normal time period for the program is extended, usually by one additional year. Only enrolled students may enter an extended program. To enter an extended program, either one or both of the following conditions must be met:

1. **Personal hardship.** If a student is experiencing unusual stresses in life and an extended academic load could alleviate added stress, the student may petition the College for an extended program. This petition is to be submitted to the Dean or Associate Dean of Academic Affairs and may not be automatically granted, but may be approved in exceptional circumstances. The Dean, Associate Dean, and Assistant Dean are responsible for reviewing and assessing the petition and may forward to the Student Promotion and Graduation Committee if appropriate. The student will be informed of the decision, in writing, by the Associate Dean of Academic Affairs.

2. **Academic.** As described above, a student ending an academic year with an annual GPA of less than 2.00 may be given the option to repeat courses from that year in which “F” grades were received. A student may be placed on an extended program for academic reasons at the discretion of the Student Promotion and Graduation Committee. A student placed on an extended program for academic reasons is automatically placed on academic probation and may not be returned to good academic standing until the extended program is 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 reentering 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 Assistant/Associate Dean of the division that delivers the course.

### Student Administrative Policies

#### Advanced Standing

All requests for advanced standing by newly admitted, transfer, or enrolled students are processed on a course-by-course basis by the Student Promotion and Graduation Committee. The Dean’s Office provides staff support for such evaluations. To request such consideration, a student should submit a letter of request to the Dean in which the student lists a course(s) previously taken at an accredited college or university which might be similar in content to a professional course(s) that 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. 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 coursework completed at a foreign college.

#### Attendance

Upon acceptance to AZCOPT, students are expected to devote their entire efforts to the academic curriculum. The College actively discourages employment that will conflict with a student’s ability to perform while didactic courses and externships are in session and will not take outside employment or activities into consideration when scheduling classes, examinations, reviews, field trips, or individual didactic or experiential course functions. Class attendance is mandatory for all students during externship.

#### Class Standing

To achieve the status of a second-year student in the professional program, students must have successfully completed all requisite first-year courses and earned an annual GPA of 2.00. To achieve the status of a third-year student in the professional program, students must have successfully completed all requisite second-year courses and earned an annual GPA of 2.00. To achieve the status of a fourth-year student in the professional program, students must have
successfully completed all requisite third-year courses, and earned an annual GPA of 2.00.

Disciplinary Probation
Disciplinary probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 of the Midwestern University Student Handbook or as defined in the Clinic Manuals. Disciplinary probation is not noted on the transcript but is kept in the student’s file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Grades
Letter grades corresponding to the level of achievement in each course are assigned based on the results of examinations, required coursework, and, as applicable, other criteria established for each course as follows. Individual faculty have the prerogative to use a plus/minus letter grading system or a whole letter grading system. Elective courses may be offered as pass/fail upon the direction of the faculty.

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”, “W/F”, and “P” are recorded on a student’s permanent record but are not used in the calculation of a student’s grade point average. Similarly, a grade of “I” or “IP” may be assigned and is used only when special/extenuating circumstances exist (e.g., prolonged illness, family crisis, etc), which prevent a student from completing the necessary course requirements on time in order to receive a grade. “W/F” may be considered a failure by the Student Promotion and Graduation Committee.

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 by repeating the failed course. When a course is repeated, the student may earn a maximum grade of “C”. Following successful repetition of the course, the permanent record of the student will be updated to indicate that the failing grade has been successfully corrected.

The grade earned each time is recorded, but only the most recent grade is used in the computation of the student’s cumulative grade point average.
<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points (per credit)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.000</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>3.670</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.330</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.000</td>
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<tr>
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</tr>
<tr>
<td>C+</td>
<td>2.330</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.000</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>0.000</td>
<td>An Incomplete (I) grade may be assigned by an instructor when a student’s work is of passing quality but incomplete, or if a student qualifies for re-examination. It is the responsibility of the student to request an extension from the course instructor. By assigning an &quot;I&quot; grade, it is implied that an instructor agrees that the student has a valid reason and should be given additional time to complete required coursework. All incomplete grades must be resolved within 10 calendar days starting from the last day of final examinations for the quarter.</td>
</tr>
<tr>
<td>IP</td>
<td>0.000</td>
<td>An In-Progress (IP) grade may be assigned when extenuating circumstances make it necessary to extend the grade completion period past 10 calendar days (e.g. illness, family death). Authorization by the Dean is required, and the completion period should not typically exceed one quarter.</td>
</tr>
<tr>
<td>P</td>
<td>0.000</td>
<td>Pass (for a pass/fail course); designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. Grade of &quot;P&quot; is counted toward credit hour accruals for graduation but does not affect GPA calculations.</td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td>Fail (for a pass/fail course); designation indicates that the student has not made satisfactory progress or completed required coursework satisfactorily. Grade of &quot;F&quot; is counted toward credit hour accruals as attempted but not completed. Grade of &quot;F&quot; is calculated into the GPA (quality points are lowered due to unsuccessful course completion).</td>
</tr>
<tr>
<td>W</td>
<td>0.000</td>
<td>Withdrawal is given if the work completed up to the time of withdrawal was satisfactory. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation.</td>
</tr>
<tr>
<td>W/F</td>
<td>0.000</td>
<td>Withdrawal/Failing is given if the work completed up to the time of withdrawal is below the passing grade level for the Program/School. This grade is not counted in any GPA calculation and is not counted in credit hour accruals for graduation. “W/F” may be considered as a failure by a Student Academic Review Committee. Multiple “F’s” and “W/F’s” can be grounds for dismissal.</td>
</tr>
<tr>
<td>AU</td>
<td>0.000</td>
<td>This designation indicates an audited course in which a student is registered with the understanding that neither academic credit nor a grade is earned. The status of the course cannot be changed from audit to full credit after the start of the quarter. The designation AU is not counted in the GPA calculation.</td>
</tr>
<tr>
<td>AP</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>
FACULTY

Joshua C. Baker, O.D., M.S.
Illinois College of Optometry
Assistant Dean of Clinical Affairs and Assistant Professor

Adam B. Blacker, O.D., M.S.
The Ohio State University College of Optometry
Assistant Professor

Alicia E. Feis, O.D.
Southern California College of Optometry
Assistant Director, Clinical Rotations and Assistant Professor

Sara N. Gaib, O.D., FAAO
Nova Southeastern University College of Optometry
Assistant Professor

Paula Handford, O.D., FAAO
Pacific University College of Optometry
Assistant Professor

Wendy W. Harrison, O.D., Ph.D., FAAO
Indiana University School of Optometry
Assistant Professor

Kevin Helmuth, O.D.
Pacific University College of Optometry
Assistant Professor

Allissun J. Hoppert, O.D.
Pacific University College of Optometry
Assistant Professor

Donald E. Jarnagin, O.D.
Southern California College of Optometry
Dean and Assistant Professor

Michael R. Kozlowski, O.D., Ph.D
New England College of Optometry
Associate Professor

Kelly C. Meehan, O.D., FAAO
Illinois College of Optometry
Assistant Professor

Jessica Neuville, O.D., FAAO
University of California at Berkeley School of Optometry
Assistant Professor

Kaila M. Osmotherly, O.D., FAAO
Pacific University College of Optometry
Assistant Professor

Tina Porzukowiak, O.D., FAAO
University of Missouri-St. Louis College of Optometry
Associate Professor

Nicole M. Putnam, Ph.D.
University of California at Berkeley
Assistant Professor

Sunny M. Sanders, O.D., FAAO
Illinois College of Optometry
Associate Dean of Academic Affairs and Associate Professor

Balamurali Vasudevan, Ph.D., B.S.Optom., FAAO
State University of New York
Assistant Professor

Vladimir V. Yevseyenkov, O.D, Ph.D., FAAO
Kansas State University
Assistant Professor
MISSION
Our mission is to improve animal and human life through innovative veterinary education, state-of-the-art health care services, and scholarly work relevant to the principles of One Health.

CORE VALUES
In pursuit of its mission, the College is guided by this set of abiding and unchanging core values:

- Teamwork
- Personal integrity
- Professionalism
- Trust
- Respect
- Adaptability

ACCREDITATION
Midwestern University CVM has initiated the process for accreditation through the American Veterinary Medical Association’s Council on Education (AVMA - COE). On June 7, 2013, the Dean of CVM received a letter of reasonable assurance from the AVMA - COE. “Reasonable Assurance” is the classification granted to an institution seeking initial accreditation. The letter stated that, based on the plans that were presented to the AVMA-COE, CVM has reasonable assurance that full accreditation will be granted when the plans are implemented.

DEGREE DESCRIPTION
Upon graduation from CVM, the Doctor of Veterinary Medicine (DVM) degree is granted. The length of the course of study for the program is four academic years (13 quarters). The curriculum begins with 2 & 2/3 years (8 quarters) of basic and clinical science instruction and laboratories. The final 1 1/3 years (5 quarters) consists of clinical experiences and rotations including applicable didactic material.

Upon graduation with the DVM degree, the graduate will be eligible to take national and state licensure examinations to enter veterinary practice or participate in post-graduate training in the many fields of veterinary medicine.

ADMISSIONS
Midwestern University CVM considers for admission students who possess the academic, professional, and personal qualities necessary for becoming exemplary veterinary professionals. Students seeking admission to CVM must:

1. Demonstrate an understanding of the veterinary medical profession
2. Demonstrate service orientation through community service or extracurricular activities
3. Have a proper motivation for and commitment to the veterinary profession as demonstrated by previous salaried work, volunteer work, or other life experiences
4. Possess the oral and written communication skills necessary to interact with patients, clients, and colleagues
5. Pass the Midwestern University criminal background check
6. Abide by Midwestern University’s Drug-Free Workplace and Substance Abuse Policy.
7. Meet the Technical Standards for the College (see below).

Competitive Admissions
Within their competitive admissions framework, the College uses multiple criteria to select the most qualified candidates from an applicant pool.

Applicants are evaluated and selected based on their academic coursework, performance on the GRE, letters of recommendation, experience in veterinary-related activities, and interviews. It is highly advisable that applicants have significant animal, veterinary, or biomedical experience to strengthen their application.

Rolling Admissions
CVM uses a rolling admissions process in which applications are reviewed, and interviews are conducted at regular intervals during the admissions cycle. Selection decisions for the College are made throughout the admissions cycle until the class is filled.

Application Process
CVM utilizes the Veterinary Medical College Application Service (VMCAS). The VMCAS application is available
online at www.aavmc.org. The VMCAS application cycle opens in June of each year. The official VMCAS application deadline is generally in the first week of October. The Midwestern University Office of Admissions may require a supplemental application form to be completed.

Students who do not apply through VMCAS, or who have not met the VMCAS deadlines, must apply directly to the Midwestern University Office of Admissions. The direct application cycle will begin the first week of October, and the application will be available online at www.midwestern.edu.

Requests for withdrawing an application must be submitted in writing.

In accordance with the Association of American Veterinary Medical Colleges acceptance deadline policy, students are not required to accept or reject an offer of admission until April 15. Students may accept or reject earlier if so inclined. If a signed letter accepting admission and the required deposit are not received by April 15, the offer of admission may be withdrawn.

Admission Requirements

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

1. Completion of prerequisite coursework or plans to complete the coursework prior to matriculation. (Confirmed by official transcripts)
   • Minimum science AND minimum total cumulative GPA of 2.75 on a 4.00 scale.
   • No grade lower than a C in any course will be accepted for credit. (Pass/fail and satisfactory/unsatisfactory grading is not acceptable in prerequisite science courses).

2. Completion of a minimum of 240 hours (6 weeks) of veterinary, health sciences, animal or biomedical research experience. Students with additional hours of work experience will present a stronger case for admission.

3. Competitive scores on the GRE General Test.

4. Three letters of recommendation.
   • At least one of the letters must be from a veterinarian.
   • The other letters can be from other veterinarians, or from pre-veterinary or science professors, or from someone who can testify to the integrity and ethical standards of the applicant.
   • Letters written by family members are not acceptable.
   • Letters must be submitted by evaluators. Letters submitted by students are not accepted by the Office of Admissions.

5. Although not required, a Bachelor’s degree will make a candidate more competitive.

**Admission Prerequisites**

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Sem Hrs</th>
<th>Qtr Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>General Chemistry with lab</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Organic Chemistry with lab*</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Mathematics**</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Physics with lab</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Science electives***</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

*Undergraduates in programs that allow biochemistry to be taken after one semester of organic chemistry can substitute a semester of biochemistry for the second semester of organic chemistry.

**Mathematics courses must be college algebra or higher; Advanced Placement math courses may be substituted for college courses.

***Science electives include biochemistry, cell biology, physiology, microbiology, genetics, animal nutrition, etc. Student applications may be strengthened by inclusion of a biochemistry course.

International Applicants

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

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

- Education Credential Evaluators (ECE): 414/289-3400 or Fax 414/289-3411 (www.ece.org, e-mail: eval@ece.org)
- World Education Service (WES): 212/966-6311 or Fax 212/739-6100 (www.wes.org)
International applicants who do not provide documentation of acceptable US or Canadian course/degree equivalency will not receive credit, and will be required to complete all prerequisite courses at an accredited college or university in the United States, or at a recognized post-secondary institution in Canada that uses English as its primary language of instruction and documentation.

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

**Interview and Selection Process**

CVM 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. Applicants are responsible for tracking the receipt of their application materials and verifying the status of their application on the university website. Instructions for accessing application information on the University website will be sent to each applicant via email by the Office of Admissions. Applicants must keep the Office of Admissions informed of any changes in mailing address and email address.

Applicants must meet the admissions requirements listed previously. After receiving an applicant’s completed application, the Midwestern University Office of Admissions will determine which applicants merit an interview based on the criteria established by CVM’s Admissions Committee.

When applicants accept the invitation to interview, they will meet with members of an interview panel. The interview panel will consist of two members who are either faculty members from Midwestern University, or members of the Arizona veterinary community. The interview panel will forward their evaluations of candidates to the Admissions Committee. The Committee will consider the interview panel’s evaluation in conjunction with all submitted application materials. The Committee may recommend to accept, to deny, or to place the applicant on an alternate list. Students will be notified of their status by the Office of Admissions.

**Matriculation Process**

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

1. Submit the matriculation agreement and required deposit monies by the date designated in the matriculation agreement. Deposits are applied towards the first quarter’s tuition.
2. Submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to MWU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Office of the Dean of the college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
3. Submit completed medical files documenting completion of a physical exam, immunizations, tuberculosis and titer blood testing as instructed by the Office of Student Services and detailed in the Student Handbook.
4. Meet the Technical Standards for the college.
5. Submit proof of medical and disability insurance coverage. Students may select either a plan offered by an MWU-approved carrier or a comparable plan offered by an outside carrier of their choice, as determined by the Office of Student Services. Insurance must be maintained throughout the entire period of enrollment.
6. Submit additional documents as requested by the Office of Admissions or college.
7. Students who are requesting an I-20 visa or who are not U.S. citizens or permanent residents must prepay tuition and in some cases other mandatory program fees for the entire length of their program at Midwestern University.
8. Submit a signed Credit Policy Statement.
9. Authorize and pass the MWU criminal background check and/or fingerprinting background check as required by the specific college/school/program.
10. Submit a signed MWU Drug-Free Workplace and Substance Abuse Policy Statement.

Students who fail to satisfy these matriculation requirements or who omit or falsify information required on official admission documents automatically forfeit their seat in the program. Any individual accepted for admission to the college/program who does not comply with stated timelines for submission of all required materials receives no further notification from the college regarding the forfeiture of their seat.

**Technical Standards**

A candidate must have abilities and skills in five areas:

1. Observation: The candidate must be able to accurately make observations at a distance and close at hand. Observation necessitates the functional use of the sense of vision and sense of touch and is
enhanced by the functional use of all of the other senses.

2. Communication: The candidate must be able to communicate effectively, efficiently and sensitively in both oral and written form and be able to perceive nonverbal communication.

3. Motor: The candidate 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 strength, postural control, neuromuscular control and eye-to-hand coordination to perform profession-specific skills and tasks.

4. 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, the consistent, prompt completion of all responsibilities, and the development of mature, sensitive and effective relationships. The candidate must be able to tolerate physically, mentally and emotionally taxing workloads, and to function effectively under those conditions. The practice of veterinary medicine requires compassion, integrity, and effective interpersonal skills.

Candidates are required to certify that they understand and meet these Technical Standards. Candidates who may not meet the Technical Standards (as with certain physical or medical disabilities) must inform the Director of Admissions, who will then contact the Dean of Students. The Dean of Students, in consultation with the academic dean, will identify and discuss what accommodations, if any, the College would need to make to allow the candidate to complete the curriculum. Technological compensation can be made for some limitations in certain of these areas, but a candidate should be able to perform in a reasonably independent manner. The College is not able to grant accommodations that alter the educational standards of the curriculum. Students must meet the Technical Standards for the duration of their enrollment.

Reappplication Process

After receiving either denial or end-of-cycle letters, applicants may reapply for the next enrollment cycle. Before reapplying, however, applicants should seek the advice of an admissions counselor. To initiate the reapplication process, applicants must submit their applications to the Office of Admissions, either directly or through VMCAS. Applications are then processed according to standard application procedures.

Transfer Admission

Midwestern University CVM may elect to accept transfer students from other veterinary schools as long as these students remain in good academic standing and have an acceptable reason(s) for seeking transfer. Midwestern University abides by the Association of American Veterinary Medical Colleges’ Student Transfer Policy whereby the university “requires written notification from the Dean or Associate Dean for Academic Affairs at the school/college in which the student is currently enrolled. The written notification should confirm that the student is currently in good standing based on both academic and conduct factors.”

To be considered for transfer, students must meet the College’s general requirements for admission. Students must also observe the following procedures:

1. All inquiries about transfers to Midwestern University CVM should be discussed with the Associate Dean for Academic Affairs. Applications for transfer must be submitted to the Office of Admissions.

2. Completed applications submitted to the Office of Admissions must include transcripts from the previous veterinary school, class rank, and a statement giving the reason for the request to transfer.

3. Completed applications are forwarded to the CVM Admissions Committee and to the Dean.

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. A student must submit a letter to the Office of the Dean in which the student lists the course(s) in which he or she is requesting advanced standing. The student must provide an official course description(s), a transcript, and a syllabus (syllabi) of the course(s) previously taken. All requests must be submitted prior to the start of the course being considered. The recommendation to grant or deny advanced standing will be made by the Dean in consultation with the department. It is expected that a minimum grade equal to a "B" would have been achieved in the class being petitioned.

Graduation Requirements

The degree Doctor of Veterinary Medicine (D.V.M.) is conferred upon candidates who have completed all required courses in the 4 year program. Students must pass all didactic course work, clinical rotation courses, and electives with an overall GPA of 2.0 or better, in order to graduate. Candidates must have also satisfied all financial obligations to Midwestern University. All graduating students are expected to attend the ceremony at which the degree is conferred. Students must complete all graduation clearance requirements as instructed by the Office of the Registrar.
**Licensure Requirements**

Graduation from the College of Veterinary Medicine does not automatically entitle one to become licensed to practice veterinary medicine. To become licensed to practice, graduates must meet requirements established by individual state boards. Licensure requirements vary among states but all licensing jurisdictions in North America require a passing score on the North American Veterinary Licensing Exam (NAVLE). The NAVLE is offered throughout North America and at certain overseas sites at computer testing centers operated by Prometric. The NAVLE is available during a four week testing window in November/December, and a two week window in April. Those eligible to apply for the NAVLE include:

- a. Graduates of schools accredited by the Council on Education of the American Veterinary Medical Association (AVMA).
- b. Senior students at AVMA-accredited schools who have an expected graduation date no later than eight months from the last date of the applicable testing window.

Additional information regarding the NAVLE can be found at the website www.nbvme.org.

Typically, applicants for state board licensure sit for boards specific to the state in which they wish to practice and transfer NAVLE scores to the state.

For further information concerning licensure, please contact the American Veterinary Medical Association, the National Board of Veterinary Medical Examiners, the American Association of Veterinary State Boards, or the individual licensing board in the state in which you wish to practice.

**Curriculum**

*Note:* The Midwestern University College of Veterinary Medicine reserves the right to alter its curriculum to address evolving college goals and resources.

**Total credits first year - 58.5**

<table>
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**Total for program completion - 245.5**

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**Winter Quarter**
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**Spring Quarter**

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**Fall Quarter**

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**Winter Quarter**

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**Total**

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**Clinical Total:**

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<td>Anesthesiology/ICU</td>
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<td>VMED 1840</td>
<td>Diagnostic Services</td>
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<td>Small Animal Internal Medicine</td>
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<td>VMED 1851</td>
<td>Community Practice</td>
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<td>Shelter Medicine</td>
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<td>VMED 1860</td>
<td>Small Animal Surgery</td>
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**Required Clinical Rotations**

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<td>VMED 1800</td>
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<td>VMED 1800</td>
<td>Equine Medicine</td>
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<td>VMED 1800</td>
<td>Equine Racertrack Practice</td>
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<td>VMED 1800</td>
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<td>Zoological/Avian/Exotic Animal Medicine</td>
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<td>Equine Surgery</td>
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<tr>
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**Elective Clinical Courses (Eight 2-week rotations required)**

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Total 24
Externships
VMED 1800 Externships (14 weeks) 21
Total 21

COURSE DESCRIPTIONS

Core Education
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 1555, 1556 Veterinary Anatomy I, II
In these courses students will learn mammalian developmental, microscopic, and gross anatomy. Lecture and laboratory material will concentrate on canine anatomy, with comparisons to feline, equine and ruminant species. Included in the dissection of each region are the musculoskeletal, vascular, nervous and lymphatic components, and clinically relevant surface anatomy. Embryology lectures cover the general patterns and principles of normal mammalian development as well as specific aspects of the development of selected systems and species. Microanatomy lectures present basic cytology, tissue types, and specific organ systems. 6 credits

BIOC 1555 Veterinary Biochemistry
This course emphasizes metabolic pathways, and their thermodynamics and interrelationships in health and disease states of domestic animals. Nucleic acid, protein, carbohydrate, and lipid metabolism, and the regulation of these pathways by intracellular and hormonal mechanisms are considered. Biochemical processes related to clinical problem solving will be used to encourage the student to use the information in a clinical and applied context. 3 credits

MICR 1522 Veterinary Immunology
This course focuses on fundamental immunological concepts based primarily on what we know from humans and mice that will be applicable to most mammals. This will be followed by specific examples related to common veterinary species. The clinical immunology section of the course will incorporate case studies to apply basic immunology to veterinary disease, with emphasis on conditions most commonly encountered in practice (autoimmunity, hypersensitivities and cancer). 3 credits

MICR 1671, 1672 Veterinary Microbiology I, II
The bacteriology portion of this course concentrates on diseases in domestic animals caused by pathogenic bacteria. Lectures emphasize basic properties of microorganisms, including identification and pathogenesis. Laboratory instruction includes basic bacteriology laboratory techniques, with hands-on application of identifying those organisms in the form of standard staining and microscope techniques, plating of cultures, and simple methods of identification of bacteria. The mycology portion of the course will present lectures on the biology of fungal pathogens of importance in veterinary medicine with emphasis on pathogenic mechanisms. Both sections will include discussion of important veterinary infectious diseases, their diagnosis, and treatment. 4 credits

PHAR 1660, 1661 Veterinary Pharmacology I, II
The course will provide students with information regarding drugs that are commonly used in veterinary practice and facilitate understanding of how those drugs act in different species. This course covers the general principles of drug action, including mechanisms by which drugs exert their effects, as well as administration, distribution, metabolism, and elimination of drugs in different species. The action of drugs on the autonomic nervous system, cardiovascular system, kidneys, respiratory and gastrointestinal tract will be discussed, as well as specific therapeutic uses, and the effects in various species. In the second quarter, students continue their study of general pharmacology, learning the effects of drugs on the central nervous system and the endocrine system. Drugs used for chemotherapy and for the treatment of various types of infectious disease will be covered in detail. 4 credits

PHYS 1512 Veterinary Physiology I
This is a survey course introducing the vertebrate physiological principles and concepts common to both domestic and farm animals. The course includes core principles relevant to the physiology of cells, cell signaling systems, and cardiovascular and respiratory mechanisms in health and disease. 3 credits

PHYS 1522 Veterinary Physiology II
This course is a continuation of Veterinary Physiology I in which basic physiological principles relevant to veterinary practice with domestic and farm animals are surveyed. It includes core concepts in renal and acid-base physiology, and the role of the central nervous system in controlling
movement, sensation, and perception.
2 credits
Prerequisites: PHYS 1511 Veterinary Physiology I

PHYS 1533 Veterinary Physiology III
A continuation of Veterinary Physiology II, this course presents physiological processes and concepts relevant to endocrine, reproductive and gastrointestinal function in healthy and diseased domestic and farm animals
4 credits
Prerequisite: PHYS 1522 Veterinary Physiology II

VMED 1501, 1502, 1503, 1604, 1605, 1606, 1707, 1708 Practice of Veterinary Medicine I, II, III, IV, V, VI, VII, VIII
These courses are a continual, year-long laboratory that will teach students fundamental clinical skills across a broad range of species. These courses will enhance students’ knowledge of the veterinary profession and factors critical for their success. It will cover such topics as professional behavior, ethics, compassion, communication skills, medical records, and veterinary career paths
4, 3, 3, 3, 3, 3, 3 credits

VMED 1531 Anesthesia / Pain Management
This course introduces the basic principles of anesthesiology and analgesia (pain management), including anesthetic and analgesic considerations for different veterinary species and for specific pathophysiologic conditions. Pharmacokinetics and pharmacodynamics of anesthetic and analgesic agents, anesthetic systems, patient monitoring and support, patient risk identification and anesthetic management and complications in different species encountered in veterinary practice will be emphasized. Focus will include perioperative pain management techniques such as regional blockade (spinal, epidural and peripheral nerve), analgesia infusions and other modalities such as transdermal techniques.
5 credits

VMED 1534 Principles of Radiology
This introductory course will present basic principles and techniques of radiology and other imaging techniques such as CT and MRI. After taking this course, students will understand why anatomical structures appear as they do when imaged. This information will be important in understanding normal and abnormal imaging findings presented in other courses.
1 credit

VMED 1571 Theriogenology
This course will present normal reproductive functions in common domestic species and build on the reproductive portion of Physiology I, II, and III. Diagnosis and management of common reproductive system disorders in large and small animals will also be presented.
3 credits

VMED 1591, 1592 One Health I, II
This course sequence is an opportunity for first year students to learn about investigational, clinical, and diagnostic aspects of disease affecting both animals and people. The emphasis will not be on the organisms causing the diseases, but on why and how disease outbreaks occur and how new diseases come to affect people, pets, and livestock.
2 credits

VMED 1641, 1642 Veterinary Pathology I, II
This course begins by introducing the student to general pathophysiologic mechanisms which cause disease including biochemical, structural, and functional changes. Concepts covered in the first quarter include normal and altered cell development, metabolic diseases, inflammation, cell aging and repair, immunopathology and neoplasia. In part II, students apply their knowledge of general pathology to specific disease processes as they affect various organs or systems. Four aspects to be learned for each disease are etiology (cause), pathogenesis (mechanism of disease development), morphologic changes (both at the gross and microscopic level), and biochemical alterations. Laboratories will supplement course material with necropsy specimens and histopath slides to illustrate disease processes.
5 credits

VMED 1520 Clinical Anatomy
This course is a clinically oriented follow-up to ANAT 1555 and will emphasize anatomical features for the most important clinical, medical, and surgical procedures specific to veterinary medicine. Normal anatomy as seen by commonly employed imaging procedures (radiography and ultrasound) will be presented as a prelude to the clinical imaging course later in the curriculum.
4 credits

CORE 1560, 1570, 1580 Interdisciplinary Healthcare
The Interdisciplinary Healthcare course involves the Colleges of Dental Medicine, Health Sciences, Optometry, Osteopathic Medicine, Pharmacy and Veterinary Medicine. The course is designed to teach all clinically-based students about each other’s clinical programs, how they might interact together as part of an interdisciplinary healthcare team, and the importance of an interdisciplinary approach to patient care. The class consists primarily of online presentations that are delivered by interdisciplinary team members from each of the clinical programs. Associated quizzes will also be completed online. Occasional lectures, panel presentations, or group assignments may also be incorporated.
Each course 0.5 credits

BIOC 1566 Fundamentals of Animal Genetics and Nutrition
This course provides an overview of biochemical genetics. The identification, classification, and description of nutrient classes and their functions will also be covered, including factors that affect nutrient metabolism and availability in
domestic animals. Skill development in feed identification, sampling techniques, evaluation, and analysis systems will be provided. Animal nutrient requirements during different physiological states of health and disease, principals of dietetics, and nutritional investigation will be emphasized.

VMED 1776 Lab Animal and Exotic Species Medicine
This course will provide students with an introduction to the husbandry and medical care of species not covered in other small and large animal clinical course. Career options in laboratory animal medicine and exotic/zoological medicine will be presented.

3 credits

VMED 1766, 1767 Food Animal Medicine I, II
Students will be introduced to principles of diagnosis and treatment of medical and surgical conditions found in the bovine, porcine, caprine, and ovine species. The clinical presentation and treatment of common disorders and fundamental clinical techniques will be taught. Zoonotic disorders and importance of animals in the human food chain (relative to food-borne illness) will also be discussed.

3 credits

VMED 1761, 1762 Equine Medicine and Surgery I, II
In this course students will be introduced to principles of diagnosis and treatment of medical and surgical conditions found in the equine species. Emphasis will be placed on the clinical assessment of patients, signs of common and uncommon diseases, management of diseases, pharmacologic agents used in equine species, and fundamental techniques used in clinical practice.

4, 3 credits

VMED 1735 Diagnostic Imaging
This course will follow up on the introduction to the physics of imaging modalities presented previously. Digital radiographic imagery, MRI, CT, and ultrasound will be discussed, along with the principles of interpreting images of each of these modalities in various disease conditions. The use of special radiology techniques, such as contrast studies, will also be covered.

5 credits

VMED 1655, 1756, 1757 Small Animal Medicine and Surgery I, II, III
These courses will be a comprehensive discussion on medical and surgical disorders seen in small animal practice. Medical disorders of the endocrine, urinary, gastrointestinal, cardiopulmonary, and musculoskeletal systems will be discussed in detail. This course is designed to emphasize the clinical diagnosis and management of common diseases in companion animal species, but will also discuss pathophysiology of the diseases. Orthopedic, soft tissue, and neurological conditions will be discussed in the surgical portion of the course, including pre- and post-operative management of patients.

5 credits

VMED 1615, 1625, 1635 Principles of Surgery, Surgery Labs I, II, III
This year-long course will introduce students to surgical and anesthetic techniques and give them the opportunity to practice in a wet lab, live animal setting. Aseptic technique, intravenous catheterization, intubation, basic surgical skills, and other techniques will be discussed in the earlier labs. Students will perform elective sterilization (ovariohysterectomy and orchietomy) on live dogs under the direct supervision of a faculty member. Students will participate in all aspects of the perioperative management of these patients (e.g. pre-anesthetic evaluation, induction and maintenance of general anesthesia, surgical preparation, performance of the surgery, postoperative recovery, and postoperative management).

4, 2, 2 credits

VMED 1648 Clinical Toxicology
This course will introduce the most common toxins encountered in veterinary medicine with emphasis on the mechanism of action of these toxins and the pathophysiology in the animal body. Clinical presentation of animals exposed to various toxins, and treatment of the toxic exposure, will also be presented.

3 credits

VMED 1645 Clinical Pathology
This course introduces the student to the interpretation of laboratory tests. General principles of laboratory testing will be discussed on a system by system basis (hematopoietic, gastrointestinal, urinary, etc.) In group discussions, lab results will be presented and students asked to develop differential diagnoses and follow-up plans. The course will include, but not be limited to, hematology, clinical chemistry, specialized chemical assays, body fluid analysis, protein analysis, and serology.

4 credits

**Clinical Courses**
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.

VMED 1860 Small Animal Surgery
Students will participate in the care of surgery patients in the CVM clinic. Students will care for soft tissue, orthopedic, and neurological patients under the supervision of a veterinary surgeon.

6 credits

255
VMED 1850 Small Animal Internal Medicine
This rotation will provide diagnostic and therapeutic services to patients referred for complex medical conditions. This may include pre-surgical diagnostic work for high risk conditions and emergency treatments. The intensive care unit will be staffed by this service.
6 credits

VMED 1800 Equine Ambulatory
3 credits

VMED 1800 Food Animal Medicine
3 credits

VMED 1852 Shelter Medicine
This course will introduce students to the care and management of companion animals in a shelter environment. Students will participate in shelter activities such as spay/neuter surgeries, vaccination and preventative health maintenance, trauma management, and medical management of ill patients.
6 credits

VMED 1830 Radiology and Diagnostic Imaging
This rotation will provide students with knowledge and practical experience in diagnostic imaging techniques. Caseload will be derived from in-house patients and external referrals. Students will be expected to learn patient positioning and restraint techniques, protocols for contrast studies, and other skills related to performing these radiologic studies. Students will also gain experience in diagnostic interpretation under the supervision of a veterinary radiologist.
6 credits

VMED 1835 Anesthesiology/ICU
The course will include pharmacology of anesthetic agents and how these agents interact with different species. It will also discuss the techniques of anesthesia in the various species encountered in veterinary practice, pre- and post-anesthetic assessment of clinical patients, and anesthetic complications. As students rotate through the ICU they will gain experience in dealing with critically ill patients and learn the practical side of working in the emerging specialty of emergency medicine.
6 credits

VMED 1851 Community Practice
During this rotation, students will provide care to animals in the CVM clinic that are presented for preventative wellness care as well as both common and complicated medical illnesses.
6 credits

VMED 1840 Diagnostic Services
Students will rotate through both the clinical pathology laboratory and the anatomical pathology laboratory. Caseload will be provided primarily by patients in the teaching hospital. Students will learn how samples for microbiology, chemistry, hematology, cytology, and parasitology are handled and processed. Post-mortem examinations will include study of histopathology and infectious causes of disease.
6 credits

VMED 1800 Elective Rotations
Students must complete eight 2-week rotations, 16 weeks total, 24 credits total, of elective rotations/courses to complete the clinical component of the curriculum. Elective rotations may be done at private veterinary clinics/hospitals, research institutions, military institutions, other veterinary teaching hospitals, or at the Midwestern University Veterinary Teaching Hospital. To be eligible for academic credit, elective rotation schedules must be planned with the assistance and approval of the faculty advisor or appropriate faculty member and be approved by the CVM Dean’s Office. Electives: 24 credits (based on 16 weeks). All elective clinical experience will be designated VMED 1800. All rotations are worth 1.5 credits per week of satisfactory clinical performance.
Adv. Shelter Medicine
Beef Cattle Practice
Canine Rehabilitation
Cardiology
Dairy Practice
Dermatology
Equine Ambulatory
Equine Medicine
Equine Racetrack Practice
Equine Surgery
Equine Theriogenology
Food Animal Medicine
Forensic Pathology & Medicine
Emergency Medicine
Laboratory Medicine
Neurology Oncology
Ophthalmology
Swine Medicine
Veterinary Dentistry
Zoo/Avian/Exotic Med.
3 credits

VMED 1800 Externships (14 weeks)
Student must complete two 2-week externships (4 weeks total, 6 credits total) in private clinical practice settings during the first four quarters of the clinical phase of the curriculum. In the final quarter students must complete 10 weeks of externship rotations (15 credits), which may be done under the supervision of research institutions, veterinary teaching hospitals, government sponsored programs, industry
sponsorship, or any program associated with veterinary medical education or careers in the profession. To be eligible for academic credit, externship rotation schedules must be approved by the Associate Dean for Clinical Education.

21 credits

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

Faculty and students should also refer to the University Academic Policy section for additional policies that apply to all students at Midwestern University.
**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. Recognizing that testing of students may be done by various methods and measurement of achievement may be carried out with various endpoints, the general guidelines for letter grades in lecture courses and the 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>89.5-100</td>
<td>4</td>
<td>--</td>
</tr>
<tr>
<td>B</td>
<td>79.5-89.5</td>
<td>3</td>
<td>--</td>
</tr>
<tr>
<td>C</td>
<td>69.5-79.5</td>
<td>2</td>
<td>--</td>
</tr>
<tr>
<td>F</td>
<td>&lt;69.5</td>
<td>0</td>
<td>--</td>
</tr>
<tr>
<td>I</td>
<td>--</td>
<td>0</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. 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 10 days, it may be converted to a grade of “F,” which signifies failure of the course.</td>
</tr>
<tr>
<td>IP</td>
<td>--</td>
<td>0</td>
<td>An In Progress (IP) grade may be assigned by a course director under certain circumstances (illness, family death, etc.) when incomplete work cannot be resolved within a 10-day period. Outstanding grades may extend for more than one quarter only when scheduling of the student, the availability course director, or the scheduling of coursework makes completion impossible in the quarter following the assignment of an “IP” grade. The “IP” grade must be resolved within an academic year.</td>
</tr>
<tr>
<td>P</td>
<td>--</td>
<td>0</td>
<td>A Pass (P) designation indicates that the student has made satisfactory progress or completed required coursework satisfactorily. A 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</td>
<td>Withdrawal/Passing (W) is given for single quarter courses if the grade achieved up to the time of the withdrawal is &gt;70% or &gt;C. Withdrawal/Passing is not counted in the GPA calculation, and is not counted in credit hour accrual for graduation.</td>
</tr>
<tr>
<td>W/F</td>
<td>--</td>
<td>0</td>
<td>A Withdrawal/Failing (W/F) is given after 50% of a course is completed and the grade achieved up to the time of withdrawal is &lt;70% or &lt;C. Withdrawal/Failing is not counted in the GPA calculation, and is not counted in credit hour accrual for graduation. Withdrawal/Failing may be considered as a failure by the Preclinical or Clinical Promotions Committees.</td>
</tr>
<tr>
<td>AU</td>
<td>--</td>
<td>0</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</td>
<td>This designation indicates the decision of a college to award academic credit that may allow a student to substitute previous course work or experience for 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>
Course Credit
Course credits are generally determined according to the following formulation. One credit is assigned to a course for any combination of 10 of the following:

- laboratory sessions (each session lasting 2 - 3 hours)
- interactive group problem-solving or discussion sessions (each session lasting 1.5 - 2 hours)
- contact hours of formal lecture

Clinical Rotation Credit
One and one-half credits (1.5cr.) are given for each week of clinical rotations.

Course Prerequisites
In general, courses in the first 8 quarters of the CVM curriculum do not require prerequisites beyond those that are required for admission and the completion of courses that precede them in the CVM curriculum. There may be clinical rotations (quarters 9 - 13) that must be preceded by certain core rotations. If the student has scheduled to take a course or rotation out of sequence, approval will be required. On a case-by-case basis, prerequisites may be waived upon approval by the Associate Dean for Academic Affairs or the Dean.

Grade Point Average
Courses are recorded in terms of quarter hour(s) of credit. The grade point average (GPA) is a weighted average computed using the number of credits assigned to each course and the quality points corresponding to the letter grade earned in each course. The GPA is calculated by dividing the total quality points earned by the total number of credits carried. The total quality points earned for each course is determined by multiplying the quality points earned per credit (corresponding to the letter grade) by the number of credits assigned to the course.

The student’s cumulative grade point average is computed and recorded by the Office of the Registrar. It is calculated beginning at the end of the first quarter of enrollment, and does not include any grades or credits for courses audited or accepted for transfer, or courses with a grade of withdrawal (W), withdrawal failing (WF), pass (P) or failed (F) that were later repeated.

Preclinical and Clinical Promotions Committee
Two faculty committees of CVM will review the academic performance of students: the Preclinical Student Promotion Committee and the Clinical Student Promotion Committee.

This committee is charged with maintaining standards of excellence in the academic preclinical courses. At a minimum, it meets at the end of each academic quarter to assess the academic status of students with an academic failure, an incomplete, or an in-progress grade. The committee will also assess the professional progress of students for whom lapses in professional behavior have been noted.

At the end of each academic year and prior to promotion to the clinical phase of the program, the committee assesses the progress of each student. Students who attain satisfactory academic and professional progress are promoted to the next academic year, provided all tuition and fees are paid.

Students with any failing grades or incomplete courses will receive a letter from the CVM administration listing the requirements they must fulfill for continuation in the CVM program.

Students are potentially subject to immediate dismissal from the CVM program if they:

- accumulate 4 or more failures within the curriculum
- accumulate 3 or more failures in an academic year
- accumulate 2 or more failures in a single academic quarter,
- fail a course while in the extended-study program (ESP)
- fail the repeat of a course previously failed

These students are required to meet with the Preclinical Promotions Committee.

Students are notified of the date, time, and place of the committee meeting by email to their official Midwestern University email account, or by telephone, at least 48 hours in advance. Decisions of the committee are emailed to the student’s official Midwestern University email account.

The right to appeal a decision for dismissal or extended study program exists and is described elsewhere in this catalog. Appeals must be filed in writing with the Dean of CVM within three working days following official notification of the committee decision.
### Preclinical Promotions Committee Guidelines*

<table>
<thead>
<tr>
<th>Course</th>
<th>Usual Action*</th>
<th>Academic Status</th>
<th>Repeat Course Timing**</th>
<th>Action Following Retake*</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>Academic Warning or Probation</td>
<td>Next Academic Year or Summer (if offered)</td>
<td>Fail Retake -- Dismiss Pass-Promote</td>
</tr>
<tr>
<td>2 Failures (different quarters)</td>
<td>Retake Courses or Dismiss</td>
<td>Academic Probation</td>
<td>Next Academic Year</td>
<td>Fail Retake - Dismiss Pass -- Promote</td>
</tr>
<tr>
<td>2 Failures (same quarter)</td>
<td>Extended Study Program or Involuntary Academic Leave of Absence or Dismiss</td>
<td>Academic Probation or Dismiss</td>
<td>Next Academic Year</td>
<td>Fail Retake - Dismiss Pass -- Promote</td>
</tr>
<tr>
<td>3 Failures (over more than one academic year)</td>
<td>Extended Study Program or Involuntary Academic Leave of Absence or Dismiss</td>
<td>Academic Probation or Dismiss</td>
<td>Next Academic Year</td>
<td>Fail - Dismiss Pass -- Promote</td>
</tr>
<tr>
<td>3 Failures (one academic year) 4 Cumulative Failures</td>
<td>Dismiss</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Action may be modified by the Preclinical Promotions Committee.

**Course repeat schedule is at the discretion of the Preclinical Promotions Committee.

### Preclinical Promotions Committee Guidelines for Students Placed on Extended Study Program ONLY*

<table>
<thead>
<tr>
<th>History</th>
<th>Usual Action*</th>
<th>Academic Status</th>
<th>Repeat Course Timing**</th>
<th>Action Following Retake*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Passed</td>
<td>Promote</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1 or 2 Failures</td>
<td>Retake Course or Dismiss</td>
<td>Academic Probation or dismissal</td>
<td>When Course is Available</td>
<td>Fail-Dismiss Pass-Promote</td>
</tr>
<tr>
<td>3 or more Failures</td>
<td>Dismiss</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Action may be modified by the Preclinical Promotions Committee.

**Course repeat schedule is at the discretion of the Preclinical Promotions Committee.

### Clinical Promotions Committee

This committee meets as needed to review academic and professional progress of students throughout the clinical rotation segment of the curriculum. Students with academic failures, or with identified academic deficiencies, as well as those who have not met the professional standards, are required to meet with the committee.

Students are notified of the date, time, and place of the committee meeting by email to their official Midwestern University email account, or by telephone, at least 48 hours in advance. Decisions of the committee are emailed to the student’s official Midwestern University email account.

The right to appeal a decision for dismissal or deceleration exists and is described elsewhere in this catalog. Appeals must be filed in writing with the Dean of CVM within three working days following official notification of the committee decision.

The Clinical Promotions Committee also recommends to the Faculty Senate for graduation those students who have successfully completed all curriculum requirements, and who have paid all tuition and fees.

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## 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></td>
<td></td>
</tr>
<tr>
<td>1 rotation or course failure*</td>
<td>If Core: Repeat If elective: Repeat or take equivalent course/rotation</td>
<td>Academic Warning**, or Probation</td>
<td>Fail - Dismiss Pass - Promote</td>
</tr>
<tr>
<td>2 rotation or course failures *</td>
<td>If Core: Repeat If elective: Repeat or take equivalent course/rotation; or Dismiss</td>
<td>Academic Probation or Dismissal</td>
<td>Fail - Dismiss Pass - Promote</td>
</tr>
<tr>
<td>3 rotation or course failures*</td>
<td>Dismiss</td>
<td>Dismissal</td>
<td>-</td>
</tr>
</tbody>
</table>

These guidelines may be modified by the Clinical Promotions Committee for reasons of additional consideration.

* All failures, beginning with Year 1, are considered by the Clinical Promotions Committee

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

### Clinical Policies

The clinical phase of the curriculum will consist of five quarters that run continuously beginning with spring quarter of the third year. The first four quarters, 52 weeks, will contain 32 weeks of core rotations, 12 weeks of elective rotations, 4 weeks of externship rotations in clinical practice settings, and 4 weeks of vacation. The last quarter of the clinical curriculum will consist of 10 weeks of externship rotations. The externships taken during the last quarter may be in any approved area and are not limited to practice settings. These areas may include research, government, international work, ecosystem management, and industry, or any other field that is relevant to veterinary education and careers in the profession. Four (4) weeks of time (not for credit) may be scheduled during the clinical component of the curriculum as vacation, interview time, board study or test taking time. This time off cannot be scheduled during a required block or rotation.

### Immunization Policy

Full-time students enrolled in a program with a clinical component are required to follow the immunization policy as outlined in the general policy section of the student handbook. Immunization requirements for CVM students may additionally be subject to current CDC/applicable state health department protocol and/or affiliated practice/institution rotation requirements.

### Clinical Rotation Attendance Policy

Students in the clinical rotation segment of the curriculum must attend all clinical rotations to which they are assigned. Departments may establish their own attendance requirements. Attendance and on-call requirements for clinical rotations take precedence over non-rotation events. Students must be sure that the requirements of each clinical rotation are understood and will be met prior to scheduling non-rotation events.

### Supervision of Veterinary Students by Off-Campus Veterinarians

While on clinical rotations, veterinary students must have direct, on-premises supervision by a veterinarian (DVM or equivalent) who is licensed to practice veterinary medicine in the state in which care is being provided.

### Minimum Academic Requirements

Students must maintain a cumulative GPA of 2.0 or greater in their first year and must have a cumulative GPA of 2.0 or greater to proceed to the clinical component of the program. Students who fail a course may be recommended for dismissal, may be placed in an extended study program, or may be placed on academic probation. If not dismissed, students are required to retake the course and must earn a C or better in order to proceed in the program. If the course is not given until the subsequent year, the student may be placed on academic leave until it is offered again. Two failed courses by a student in a single quarter will result in a recommendation of dismissal of the student. (See charts below for further elaboration on results of unsatisfactory academic performance.)

### Academic Warning

Academic warning issued by the Associate Dean for Academic Affairs of CVM is a formal notification of marginal or substandard academic performance and/or professional behavior. Academic warning cautions the student that continued performance at this level may compromise the student’s ability to pass one or more courses. Students may be required to seek assistance from course faculty and/or Student Services.

To return to good academic standing, a student must complete the quarter and/or the subsequent quarter with no course grades below a “C”. A student on warning is formally
assigned a faculty member to mentor them through the period of warning.

Academic Probation
Academic probation represents notice that continued inadequate academic performance will result in a recommendation of 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 for one full quarter at full academic credit load following the completion of the correction of the deficiencies.

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, or to progress to quarter 9 and clinical rotations until remediation is complete.

If a student on academic probation successfully completes a probationary quarter with repeated courses and earns grades of “C” or greater in all courses, the student’s academic status reverts to academic warning. To return to good academic standing, a student must then finish one full quarter at full academic credit load in the CVM curriculum sequence with no grade lower than a “C”. A student on probation is also formally assigned a faculty member to mentor them through the period of probation.

Disciplinary Warning/Probation
Disciplinary warning/probation occurs for student acts of professional misconduct as defined in Appendices 2 and 4 of the Student Handbook. Disciplinary probation is not noted on transcript but is kept in the student’s disciplinary file. Disciplinary probation information may be shared with clinical sites that are affiliated with Midwestern University educational programs.

Dismissal
A student can be dismissed for the following reasons:

1. Failure to achieve minimum academic standards (as outlined above and enforced by the preclinical or clinical promotions committees)
2. Failure to exhibit the professional and personal attributes required for the practice of veterinary medicine.
3. Violation of CVM policies that are grounds for dismissal.
4. Falsification of admission records.
5. Failure to meet and maintain technical standards.

Appeal Process
Following notification of a decision by the Preclinical Promotions Committee or Clinical Promotions Committee, a student may appeal the decision in writing within three working days to the Dean. The Dean may grant an appeal only if a student can demonstrate one of the following:

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

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

Course Failure Policy
Students who do not demonstrate minimum competencies assume the obligation and responsibility to make up academic failures. First and second year students must successfully pass all failed courses before they can be promoted to the second or third years. Likewise, third year students can begin the clinical rotations and be promoted to the fourth year only if they pass all requirements of the preclinical curriculum. Third and fourth year students must remediate any failed courses as soon as possible following the failure in order to be considered for graduation.

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

Extended Study Program
Voluntary. Students have the option to request to voluntarily enter the Extended Study Program (ESP) program. Its purpose is to provide additional time to address personal and academic issues by creating a program of study that allows students to complete any given year of the curriculum in two years. Students must petition the Dean to voluntarily become an ESP student no later than the completion of 50% of a quarter. Requests received after the fifth week are reviewed by
the Dean and granted only for reasons of substantiated hardship or medical emergencies.

Students will be assessed tuition for any additional years of instruction.

**Academic.** A student may be placed in the Extended Study Program (ESP) for academic reasons at the discretion of the Promotions Committee having jurisdiction over the student’s academic progress. A student placed in ESP for academic reasons is automatically placed on academic probation and will not be returned to good academic standing until all failed courses are retaken and passed, and a subsequent quarter at the full credit load is successfully completed. If a student is placed in 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 ESP. Students will be assessed tuition for any additional years of instruction.

**Liaison Structure**

*Student/Faculty Liaison Committees: First Year; Second Year; Third Year; Fourth Year.*

These four committees each consist of a faculty liaison who is involved in the curriculum of the respective year and two students elected by the class of each respective year. The faculty liaison is appointed by the Dean of CVM, and each class elects student liaisons according to the guidelines stated in the current Student Handbook. The student liaisons and the faculty liaisons generally meet once a quarter to discuss questions the class may have regarding University policy, academic and nonacademic issues that relate to the teaching environment. The faculty liaison reports on meetings that have taken place at the administrative level.

**Satisfactory Academic Progress**

As required by federal law, reasonable standards of satisfactory academic progress have been established by Midwestern University CVM for the Doctor of Veterinary 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 the Midwestern University catalog.

**FACULTY**

**VETERINARY CLINICAL FACULTY**

**Alexandra Brower, D.V.M., DACVP**
University of Tennessee
Associate Professor

**Jason M. Eberhardt D.V.M., M.S., DACVIM**
Colorado State University
Assistant Professor

**Ryane E. Englar, D.V.M.**
Cornell University
Assistant Professor

**Thomas Graves, D.V.M., Ph.D., DACVIM**
Cornell University
Associate Dean for Clinical Education

**Michael H. Jaffe, D.V.M., M.S., DACVS**
University of Missouri
Assistant Professor

**Jana Jones, D.V.M., DACVAA, DACVECC**
University of California, Davis
Assistant Professor, Anesthesiology

**Rolf E. Larsen, D.V.M., Ph.D., D.ACT**
University of Minnesota
Associate Dean for Academic Affairs
Professor, Theriogenology

**Robert V. Mason, D.V.M., M.S.**
University of Minnesota
Director, Off Campus Clinical Education
Professor

**Sarah Matyjaszek, D.V.M., DACVS**
Michigan State University
Assistant Professor, Equine Surgery

**Angela M. Mexas, D.V.M., Ph.D., DACVIM**
Colorado State University
Assistant Professor

**Donald L. Noah, D.V.M, M.P.H., DACVP**
The Ohio State University
Associate Professor

**Melvin Pence, Jr., D.V.M., M.S.**
Iowa State University
Assistant Professor, Population Health

**Robert Shull, D.V.M., DACVP**
Cornell University
Director, Program Development
Professor, Pathology

**Brian K. Sidaway, D.V.M., M.S., DACVS**
Mississippi State University
Dean

**Valerie M. Wong, D.V.M., M.Vet.Sc., Ph.D., DACVP**
University of Guelph
Assistant Professor

**Kurt W. Weingand, D.V.M., Ph.D. DACVP**
University of Missouri-Columbia
Associate Dean for Research and Post Graduate Education
VETERINARY BASIC SCIENCE FACULTY

Larry D. Alexander, Ph.D.
Meharry Medical College
Assistant Professor

Nancy S. Bae, Ph.D.
University of Maryland at College Park/NIH
Assistant Professor

Thomas L. Broderick, Ph.D.
Professor

Gerald Call, Ph.D.
University of Kansas
Associate Professor

Chad C. Carroll, Ph.D.
University of Arkansas for Medical Sciences
Associate Professor

C. George Carlson, Ph.D.
SUNY Upstate Medical University
Professor

Dana S. Devine, Ph.D.
Kansas City
Clinical Associate Professor

Justin Georgi, Ph.D.
University of New York at Stony Brook
Assistant Professor

Fernando Gonzales, Ph.D.
University of Texas Southwestern - Medical Center of Dallas
Assistant Professor

Aryeh Grossman, Ph.D.
Stony Brook University
Associate Professor

Wade A. Grow, Ph.D.
University of Idaho
Professor

Margaret Hall, Ph.D.
Stony Brook University
Associate Professor

Jose Hernandez, Ph.D.
University of Zaragoza
Assistant Professor

Christopher P. Heesey, Ph.D.
Stony Brook University
Associate Professor

John A. Hnida, Ph.D.
Assistant Professor

Lauritz Jensen, M.S., D.A.
University of Northern Colorado
Professor

Garilyn Jentarra, Ph.D.
Arizona State University
Assistant Professor

Douglas Jones, Ph.D.
University of Texas
Assistant Professor

Sam Katzif, Ph.D.
Georgia State University
Assistant Professor

Laszlo Kerecsen, M.D.
Medical University of Debrecen, Hungary
Professor

Shaleen Korch, Ph.D.
University of Manitoba
Assistant Professor

Kathryn Lawson, Ph.D.
University of Arizona
Assistant Professor

Andrew H. Lee, Ph.D.
University of California, Berkeley
Assistant Professor

Kathryn J. Leyva, Ph.D.
Northern Arizona University
Professor

David F. Mann, Ph.D.
Michigan State University
Professor

Pamela E. Potter, Ph.D.
Dalhousie University
Professor

Michael Quinlan, Ph.D.
Arizona State University
Associate Professor

Erin L. R. Simons, Ph.D.
Ohio University
Assistant Professor

Jose Rodriguez-Sosa, Ph.D.
University of Guelph
Assistant Professor

D. Ellen K. Tarr, Ph.D.
The John Hopkins University
Assistant Professor

Jonathan Valla, Ph.D.
University of Texas at Austin
Assistant Professor

Johana Vallejo-Elias, Ph.D., BSc
University of Missouri – Columbia
Associate Professor
John VandenBrooks, Ph.D.
Yale University
Assistant Professor

Nagaraj Vinay-Janthakahalli, Ph.D.
University of Basel, Switzerland
Assistant Professor

Y. Gloria Yueh, Ph.D.
University of Connecticut
Professor