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Welcome

Des Moines University, a private graduate university of the health sciences, is pleased to provide this catalog for the 2015-16 academic year.

This catalog provides detailed information about the University's degree programs in osteopathic medicine, podiatric medicine, physical therapy, post-professional physical therapy, physician assistant studies, health care administration, public health, biomedical sciences and anatomy.

While all of the degree programs outlined in this catalog represent a distinct regimen of professional and academic preparation, you will find within our curricula a common focus on treating individuals through personalized, compassionate, hands-on care that focuses on preventing disease, not just treating symptoms.

On a broad scope, the programs also address the needs of students by providing an ethical framework that considers the role of health care providers in today's evolving health care environment.

We are committed to providing you with answers to your questions and opportunities for your professional success. You are welcome to contact us for more information about any of the degree programs or educational offerings in this catalog as you plan your health care career.

Sincerely,

Angela L. Walker Franklin, Ph.D.
President and CEO, Des Moines University

About This Catalog

This catalog provides information about Des Moines University for the 2015-16 academic year.

The information in this catalog does not constitute a contract between the University and the student. The University reserves the right to make changes in curricula, admission policies and procedures, tuition and financial aid, academic standards and guidelines, student services and any other statements or policies set forth in this catalog, without giving prior notice. The University also publishes a Student Handbook that serves as a guide to enrolled students. The handbook contains more detailed information about the policies, procedures and organization of the University. Enrolled students are advised to refer to each document as needed.

About Des Moines University

Founded in 1898, Des Moines University is the only private medical school in Iowa. The institution offers superior academics in a collaborative environment. Graduate-level, professional degree programs are offered in osteopathic medicine, podiatric medicine, physical therapy, physician assistant studies, health care administration, public health, anatomy and biomedical sciences.

Mission

To improve lives in our global community by educating diverse groups of highly competent and compassionate health professionals.

Vision

Des Moines University will be:

- The leader in innovative health education that promotes lifelong learning
- A cultivator of distinctive faculty and student researchers who discover and disseminate new knowledge
- A leader and partner of choice in the delivery of services that enhance health, wellness and education in our communities
- A policy consultant and catalyst in healthy community transformation

Values

- Accountability: Taking responsibility for our actions and outcomes.
- Collaboration: Establishing cooperative relationships and innovative practices to enhance health education and care.
- Honesty: Demonstrating the highest standard of truthful and ethical behavior.
• Inclusiveness: Embracing a culture of diversity that accepts and respects the unique characteristics of each individual.
• Wellness: Committing to the well-being of the mind, body and spirit.

Mission, Vision and Values

University Profile
The history of Des Moines University reflects a continuing commitment to teach, to learn and to serve.

University History
Students in the osteopathic medicine, podiatric medicine, physician assistant and physical therapy programs receive part of their training on campus through the Des Moines University Clinic, which offers primary care and medical specialties and serves as a regional referral center. The clinic's multi-specialty, interdisciplinary approach allows physicians to refer patients to a single location for diagnostic and therapeutic care of medical ailments not ordinarily handled in a primary care or outpatient setting. The 1,500-seat Olsen Medical Education Center is adjacent to the clinic.

The University's commitment to wellness extends beyond educational programs to the delivery of health care. Students and faculty provide free health services and screenings to the community through charity events, sporting events and corporate wellness programs to help underserved children and families.

Des Moines University has educated more than 16,600 health care professionals and will continue to prepare physicians and allied health personnel for careers in the ever-changing field of medicine while developing innovative programs to serve students and society.

Governance
The DMU Board of Trustees, the legal governing authority, which includes physicians and lay members, has the responsibility for the overall control and policy-making of the University. The Board sets policy for the University in areas of finances, business administration, faculty and academic programs. The Board performs other duties as necessary in the oversight of the University and the formulation of its policies.

Board of Trustees

The University has been a member of the Association of Governing Boards of Colleges and Universities since January 1971.

Accreditation
Des Moines University is accredited by the Higher Learning Commission and is a member of the North Central Association of Colleges and Schools, 30 North LaSalle St, Suite 2400, Chicago, IL 60602-2504. Telephone 312-263-0546; 800-621-7440; fax 312-263-7462. www.ncahlc.org.

Education programs within the University also have professional accreditation within their respective fields as follows:


• Master of Science in Physician Assistant Studies program: Accreditation Review Commission on Education for the Physician Assistant (ARC-PA), 12000 Findley Road, Suite 150, Johns Creek, Georgia 30097. Telephone (770)476-1224; fax (770)476-1738. http://www.arc-pa.org/.

University Accreditation

University-Wide Student Learning Outcomes

University-wide student learning outcomes were developed in 2010 to describe the values or skills that should be demonstrated by all DMU graduates regardless of program.

University-Wide Student Learning Outcomes

Statement of Nondiscrimination

Des Moines University ("the University") is committed to maintaining a fair and respectful environment for work, study and participation in the life of the University. In its Discrimination and Harassment Prohibition policy, the University explicitly prohibits any member of the University community from harassing or discriminating against any employee or student of the University because of that person's race, color, national origin, ethnicity, creed, religion, age, disability, sex, gender identity, sexual orientation, pregnancy, veteran status, genetic information and other characteristics protected by law ("protected class"). Incidents of protected class harassment or discrimination will be met with appropriate disciplinary action, up to and including dismissal or termination of employment from the University. The University is committed to preventing or stopping discrimination or harassment whenever it may occur at the University or in its sponsored activities.

Questions regarding this statement may be directed to the Chief Compliance Officer and/or Chief Human Resources Officer.

State Authorization of Distance Education

The U.S. Department of Education expects educational institutions that offer distance or online education programs to students residing in states other than the home state of the institution to comply with applicable regulations in those states. Requirements for educational institutions vary by state. Des Moines University (DMU) works directly with states to ensure that any required approvals are secured. Various state requirements and fees may prohibit DMU from achieving authorization in every state. In addition, state requirements and DMU's approval status may change over time so prospective students residing outside of Iowa who are interested in enrolling in DMU's Master of Public Health, Master of Health Care Administration, or Post-Professional Doctor of Physical Therapy programs should contact Admissions to confirm whether DMU is authorized to offer online programming in their state. DMU's Admissions staff can answer questions about state authorization.

Several states in which DMU is approved require specific disclosures regarding authorization status as follows:

**Alaska:** "DMU and its identified programs have been determined by the Alaska Commission on Postsecondary Education to meet the criteria for exemption from the authorization provisions of AS 14.48, per regulation 20 AAC 17.015(a)(8) because the program is online or distance delivered and does not have a physical presence in the state."

**Indiana:** "This institution is authorized by: The Indiana Board for Proprietary Education, 101 W. Ohio St., Suite 670, Indianapolis, IN 46204-1984."

**Maryland:** "DMU's out-of-state online registration application has been determined to be in compliance with the requirements of the Maryland Higher Education Commission Education Article, Title 11, Subtitle 2, Annotated Code of Maryland and COMAR 13B.05.01."

**Minnesota:** "Des Moines University Osteopathic Medical Center is registered as a private institution with the Minnesota Office of Higher Education pursuant to sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions."
Additionally, DMU provides information for students listing the state agencies and contact information where students can file a complaint against the University.

Academic Calendar

Des Moines University operates on a continuous, semester-based calendar.

College of Osteopathic Medicine

Throughout its history, the College of Osteopathic Medicine (COM) has maintained a tradition of dynamic growth and academic excellence. Students follow a four-year curriculum that prepares them to become osteopathic physicians through an integrated program of lectures, laboratories and clinical experiences in the on-campus clinic, hospitals and ambulatory care facilities.

With a rich history, the college continues to focus on the future by developing outstanding osteopathic physicians to provide health care to the people of Iowa and the nation. To achieve these goals, the educational program will continue to emphasize a comprehensive approach to patients and their health problems. Although the importance of well-trained primary care osteopathic physicians (family medicine, internal medicine and pediatrics) is a basic tenet of the osteopathic medical philosophy, our students also explore careers in other specialties, such as emergency medicine, surgery, obstetrics and gynecology and anesthesiology.

Mission

To improve lives in our global community by educating diverse groups of highly competent and compassionate osteopathic physicians, health educators, researchers and scholars.

Vision

- The College of Osteopathic Medicine will be a leader in innovative medical education, both undergraduate and graduate, by meeting the highest standards of academic and clinical achievement.
- The College of Osteopathic Medicine will be a cultivator of distinctive educators and students who discover, disseminate, and apply new knowledge.
- The College of Osteopathic Medicine, through innovative design, will develop methods/processes to educate our students in the pursuit of delivering services that enhance health, wellness and education in our local, national, and global communities.
- The College of Osteopathic Medicine will engage in and enable research and scholarly activity to advance the knowledge of health care, osteopathic medicine and in the sciences and technologies that will shape medicine, science, and education.
- The College of Osteopathic Medicine will encourage, enable, and enhance the creation and development of graduate medical education, by lending support, education, and resources to further the goal of creating graduate opportunities in osteopathic medicine.

AOA Code of Ethics

The College of Osteopathic Medicine adheres to the AOA Code of Ethics which has been designed to guide its member physicians in their professional lives. The complete code may be accessed here.

Doctor of Osteopathic Medicine

Osteopathic medicine is a philosophy of health care that emphasizes the interrelationships of the body’s systems in the prevention, diagnosis and treatment of illness, disease and injury. The Doctor of Osteopathic Medicine (D.O.) is trained to use all clinical/scientific modalities to maintain and restore the health of patients.

Based upon an increasing body of scientific evidence, osteopathic medicine emphasizes four main principles:
1. The human body is a unit, and all body systems are interdependent. A disturbance in one system may alter the functions of other body systems.
2. The body possesses self-regulatory mechanisms that provide resistance to, and recovery from, injury and disease.
3. Structure and function are interrelated, providing the basis for osteopathic manual treatment.
4. Appropriate prevention and treatment of all disease processes is based on an understanding of the body unit, its self-regulatory mechanisms and the relationship between structure and function.

The distinctive feature of osteopathic medicine is the recognition of the relationship between structure and function of the body. The osteopathic physician (D.O.) uses the developed skills of observation, definitive history taking, clinical judgment, manual medicine and other standard diagnostic and therapeutic procedures to recognize and treat pre-disease and disease states of the body. Treatment of the whole patient, rather than the disease process, is the primary consideration.

**Program Requirements**

To be considered for admission, you must have a bachelor’s degree or complete the requirements for a degree before enrollment. The degree must be from a regionally accredited institution.

Applicants must submit entrance exam (e.g., MCAT) scores during the application process; scores no older than two years are preferred. Required courses must be completed before registration. The minimum grades recommended for application are a 2.8 cumulative GPA and a 2.8 science GPA on a 4.0 scale, and at least a “C” in each of the following prerequisite areas:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology/Zoology</td>
<td>8 semester</td>
</tr>
<tr>
<td></td>
<td>hours, with lab</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>8 semester</td>
</tr>
<tr>
<td></td>
<td>hours, with lab</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>4 semester</td>
</tr>
<tr>
<td></td>
<td>hours, with lab</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3 semester</td>
</tr>
<tr>
<td>Physics</td>
<td>8 semester</td>
</tr>
<tr>
<td></td>
<td>hours, with lab</td>
</tr>
<tr>
<td></td>
<td>(may substitute 3 semester hours of Statistics)</td>
</tr>
<tr>
<td>English: Comp/Literature/Speech</td>
<td>6 semester hours</td>
</tr>
</tbody>
</table>

Other recommended course work includes cell biology, microbiology, immunology, physiology and anatomy. Students must be able to successfully achieve the instructional goals of the college and pass both written and practical examinations in all areas, including clinical medicine, patient care, osteopathic manual medicine, Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS). Refer to the technical standards in this section.

Additional information can be found on the DO Program Admissions Requirements website.

**Program Application Process**

Application to the Doctor of Osteopathic Medicine Program is accepted through the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS), which is a centralized application service. If applicants meet the minimum GPA requirements, a supplemental application will be sent by email with instructions for completion. In addition to the supplemental application, three letters of recommendation are required to complete the file prior to review by the Admission Committee.

Detailed information regarding the process can be found on the DO Program Admissions website.

The Admissions Committee will select the most competitive applicants to participate in an on-campus interview. Following the interview, the Admissions Committee will review applicant files and interview results to make decisions. Generally, applicants will receive a response to their application within three weeks of the interview.

Students wishing to be considered for transfer into the DO program from another college of medicine (osteopathic or allopathic) must meet the following criteria:

- Student must be ranked in the upper 50% of his/her current medical school class.
- Student must submit a supportive letter of recommendation from the dean of his/her current medical school stating student is in good academic standing.
- Student is enrolled in a COCA- or LCME-accredited medical school.
- Student must have a cogent reason for requesting transfer.
• Student is willing to participate in a personal interview on our campus at the discretion of the Chair of the Admissions Committee.
• The Associate Dean of Academic Curriculum and Medical Programs and a committee of COM course coordinators will review the applicant's transcript and determine where transfer credit will be given and what courses will be required for completion prior to graduation.
• Student requesting transfer from other COMs must have passed COMLEX 1 of NBOME (or USMLE 1 if from an allopathic school).
• Student from an LCME-accredited medical school must meet all DMU-COM OMM requirements prior to graduation.
• Student must be enrolled at DMU a minimum of two years and meet all graduation requirements of the Student Handbook.
• Student has not been convicted of a felony or found guilty of professional or moral misconduct.
• Student must complete a criminal background check.

Additional information regarding transfer admission can be reviewed on the website.

Technical Standards for Admission, Academic Promotion and Graduation

A candidate for the Doctor of Osteopathic Medicine degree must have abilities and skills in eight areas: observation; communication; motor; sensory; strength and mobility; visual integration; intellectual, conceptual, integrative and quantitative; and behavioral and social attributes. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

Technical Standards for Admission, Academic Promotion and Graduation
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSTE 1103A</td>
<td>Professional Certification I, 0.5 credit hour</td>
<td></td>
</tr>
<tr>
<td>OSTE 1103B</td>
<td>Professional Certification I, 0.0 credit hours</td>
<td></td>
</tr>
<tr>
<td>OSTE 1122</td>
<td>Geriatrics, 2.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>PATH 1109</td>
<td>General Pathology, 2.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>PHYS 1116</td>
<td>Medical Physiology, 6.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>PSYC 1105</td>
<td>Behavioral Medicine, 2.0 credit hours</td>
<td></td>
</tr>
</tbody>
</table>

**Year 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSTE 2102</td>
<td>Fundamentals of Patient Safety and Clinical</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Quality II,</td>
<td></td>
</tr>
<tr>
<td>OSTE 2103A</td>
<td>Professional Certification II, 0.0 credit hours</td>
<td></td>
</tr>
<tr>
<td>OSTE 2103B</td>
<td>Professional Certification II, 1.0 credit hour</td>
<td></td>
</tr>
<tr>
<td>OMM 2101A</td>
<td>Osteopathic Manual Medicine II, 2.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>OMM 2101B</td>
<td>Osteopathic Manual Medicine II, 1.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>BIOE 2120</td>
<td>Medical Ethics II and Legal Topics in Clinical</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Medicine</td>
<td></td>
</tr>
<tr>
<td>HLTH 2104</td>
<td>Ophthalmology, 1.0 credit hour</td>
<td></td>
</tr>
<tr>
<td>HLTH 2105</td>
<td>Specialty Medicine, 3.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>LAB 2115</td>
<td>Basic Surgical and Medical Skills, 1.0 credit</td>
<td>1.0</td>
</tr>
<tr>
<td>OMM 2101A</td>
<td>Osteopathic Manual Medicine II, 2.5 credit hours</td>
<td></td>
</tr>
<tr>
<td>OMM 2101B</td>
<td>Osteopathic Manual Medicine II, 1.5 credit hours</td>
<td></td>
</tr>
</tbody>
</table>

**Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMM 3101A</td>
<td>Osteopathic Manual Medicine III, 1.0 credit hour</td>
<td></td>
</tr>
<tr>
<td>OMM 3101B</td>
<td>Osteopathic Manual Medicine III, 1.0 credit hour</td>
<td></td>
</tr>
<tr>
<td>OSTE 3144A</td>
<td>Clinical Rotations Year III, 20.0 credit hours</td>
<td></td>
</tr>
<tr>
<td>OSTE 3144B</td>
<td>Clinical Rotations Year III, 20.0 credit hours</td>
<td></td>
</tr>
<tr>
<td>OSTE 3151</td>
<td>Introduction to Health Systems and Policy, 1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>credit hour</td>
<td></td>
</tr>
<tr>
<td>OSTE 3160</td>
<td>Comprehensive Clinical Assessment, 1.0 credit</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>hour</td>
<td></td>
</tr>
</tbody>
</table>

**Year 4**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMM 4101A</td>
<td>Osteopathic Manual Medicine IV, 0.5 credit hour</td>
<td></td>
</tr>
<tr>
<td>OMM 4101B</td>
<td>Osteopathic Manual Medicine IV, 0.5 credit hour</td>
<td></td>
</tr>
<tr>
<td>OSTE 4144A</td>
<td>Clinical Rotations Year IV, 20.0 credit hours*</td>
<td></td>
</tr>
<tr>
<td>OSTE 4144B</td>
<td>Clinical Rotations Year IV, 20.0 credit hours*</td>
<td></td>
</tr>
</tbody>
</table>

*Students graduating in 2017 and beyond will complete a total of 44.0 credit hours*

**Curriculum Features**

Curriculum Outline and Electives
Curriculum Sequence

**Course Descriptions**

**ANAT 1101A Gross Anatomy:** The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic...
anatomy. This course will include the anatomical relationships of the back, head, neck, thorax and abdomen. (4.0 credit hours)

**ANAT 1101B Gross Anatomy:** The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic anatomy. This course will include the anatomical relationships of the pelvis, perineum, and the lower and upper limbs. (2.5 credit hours)

**ANAT 1104 Neuroanatomy:** The structural and functional organization of the central nervous system is presented through lectures and laboratory/computer demonstrations on parts of the brain and spinal cord. The course covers the role of the brain and spinal cord in sensory perception and movement of the human body, including organs and behavioral responses. Wherever possible, case studies and appropriate syndromes are also presented. (2.0 credit hours)

**BIOC 1102 Biochemistry and Molecular Genetics:** An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (4.5 credit hours)

**BIOE 1120 Introduction to Medical Ethics:** The course is designed to serve as an introduction to recognizing moral-ethical dilemmas in medicine and appropriately addressing them. Students explore basic ethical concepts, theories and principles, and the importance of morality, virtues and values. Developing moral reasoning skills is emphasized. Additionally, the interaction between the law and ethics and maintaining professional behavior and standards are introduced. Each student brings values and beliefs from his/her family, religion, culture, education and personal experience; during the course, students evaluate and augment their beliefs. (1.5 credit hours)

**BIOE 2120 Medical Ethics II and Legal Topics in Clinical Medicine:** This course is designed to assist students in understanding central issues of frequently encountered ethical-moral problems and the interrelationship between medical ethics and the law. Cases that have shaped medical ethics, as well as the more subtle ethical issues arising in practice, are discussed. Potential ethical-moral problems faced by students during clinical rotations also are explored. Emphasis is on the development of case-based ethical-moral problem-solving skills. At the completion of the course, students demonstrate their ability to apply ethical-moral decision-making in the context of a simulated patient encounter (SPAL). (2.0 credit hours)

**HIST 1106 Medical Cell and Tissue Biology:** A comprehensive study of human cell biology, basic tissues and organ systems (e.g., cardiovascular, gastrointestinal, integumentary and lymphoid). Wherever possible, the study of histology is translated to clinical relevance. The course consists of regularly scheduled lectures, self-directed laboratory experiences, and collaborative learning exercises. (3.0 credit hours)

**HLTH 1107A Clinical Medicine:** This course introduces the student to interviewing, history-taking and physical examination skills. Practical laboratory sessions include experiences in obtaining focused histories and performing physical examinations with emphasis on proper use of diagnostic equipment and techniques. For example, the student will learn to perform physical examinations of the head and neck, thorax and lungs, breasts, axillae, and abdomen. The Standardized Performance Assessment Laboratory (SPAL) is utilized to provide opportunities for evaluating clinical skills in a realistic setting with standardized patients. (2.0 credit hours)

**HLTH 1107B Clinical Medicine:** This course introduces the student to interviewing, history-taking and physical examination skills. Practical laboratory sessions include experiences in obtaining focused histories and performing physical examinations with emphasis on proper use of diagnostic equipment and techniques. For example, the student will learn to perform physical examinations of the male and female genitalia, anus, rectum, and prostate, skin, nails, and hair, foot, peripheral vascular system, musculoskeletal system and nervous system. Additionally, the student will be exposed to the physical examination of pediatric, pregnant, and elderly patients. The Standardized Performance Assessment Laboratory (SPAL) is utilized to provide opportunities for evaluating clinical skills in a realistic setting with standardized patients. (1.5 credit hours)

**HLTH 2104 Ophthalmology:** This course covers the fundamentals of the ocular examination for the primary care physician. The student should be able to diagnose and
manage, or refer, the most commonly seen ocular disorders including acute visual loss, chronic visual loss, ocular and orbital injuries, amblyopia and strabismus, red eye, neuro-ophthalmologic disorders and ocular manifestations of systemic disease. (1.0 credit hour)

HLTH 2105 Specialty Medicine: The clinical specialty areas of ears, nose, and throat (ENT), dermatology and allergy, and rheumatology and orthopedics constitute the Specialty Medicine course. For the ENT block, the primary goal is to provide the student with a broad overview of the conditions and diseases affecting the ears, nose, sinuses, mouth, larynx, and neck. This block will also introduce the student to the diagnostic evaluation and treatment of these conditions. The dermatology and allergy block is an introduction to clinical dermatology, including a review of basic terms, anatomy, pathology, diagnosing, and treatment/management. Both benign and malignant skin lesions are reviewed, as well as viral, bacterial, and systemic causes of dermatological conditions. A review is also given on burn therapy and wound management. Lastly, the rheumatology and orthopedics block will provide an extensive comprehensive review of the musculoskeletal system, including the diagnosis and management of musculoskeletal disorders and injuries. (3.5 credit hours)

HMNTS 1111 Introduction to the History of Medicine: Presented in a lecture format at the beginning of the first year, this course deals with the broad spectrum of medicine and healing. Course work introduces the history of medicine from its earliest practices to the evolution of the osteopathic medical profession during the 19th and 20th centuries. The development of osteopathic medicine through the thought and practice of Andrew Taylor Still is emphasized. (1.0 credit hour)

LAB 2115 Basic Surgical and Medical Skills: Under the direction of surgical residents and surgical nurses, second-year medical students learn basic aseptic technique, clinical and operative skills. Skills emphasis includes suturing and knot tying, foley catheter and nasogastric tube insertion, peripheral vascular access, venous cut-down and catheterization, cricothyroidotomy, chest tube insertion, arterial puncture and central line placement. Student application of new psychomotor skills is provided through hands-on procedure and computer simulation labs. (1.0 credit hour)

MICR 1103 Microbiology and Immunology: Basic principles and clinical relevance of immune mechanisms and fundamentals of host-pathogen interactions are presented. In addition, the course offers an introduction to the various subdisciplines of microbiology, with emphasis on facts and principles pertinent to the broad requirements for understanding infectious diseases. Bacterial, mycotic, parasitic and viral pathogens are considered, with major emphasis on clinical presentation and pathogenic mechanisms. Laboratory integration focuses on the common diagnostic modalities pertinent to the various infectious agents. (6.0 credit hours)

OMM 1101A Osteopathic Manual Medicine I: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes osteopathic principles and practice, applied anatomy, fascia and soft tissue, tensegrity, reflexes (somato-visceral, somato-somatic, and viscero-somatic), and pelvis. It concludes with the comprehensive structural diagnosis and treatment of the pelvic girdle. (2.5 credit hours)

OMM 1101B Osteopathic Manual Medicine I: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes the lumbar spine, thorax, and cervical region. It concludes with rapid structural screening. (2.0 credit hours)

OMM 2101A Osteopathic Manual Medicine II: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes osteopathic considerations of the lymphatic system. (2.5 credit hours)

OMM 2101B Osteopathic Manual Medicine II: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes OMM
considerations of pregnant, hospitalized, and pediatric patients, cranial osteopathy, short leg syndrome, scoliosis, and the integration of OMM into primary care. It concludes with a comprehensive board examination review. (1.5 credit hours)

**OMM 3101A Osteopathic Manual Medicine III:** Students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. During each core clinical clerkship rotation, students will be assigned corresponding chapters in the required textbook and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. (1.0 credit hour)

**OMM 3101B Osteopathic Manual Medicine III:** Students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. During each core clinical clerkship rotation, students will be assigned corresponding chapters in the required textbook and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. (1.0 credit hour)

**OMM 4101A Osteopathic Manual Medicine IV:** The students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. All students are encouraged to assess and treat as many patients as their preceptor allows. Students are encouraged to read chapters corresponding with clinical encounters during rotations and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. A one-page summary of patient encounters, including structural assessment, visceral correlations and proposed treatment/treatment provided will be submitted by each student. (0.5 credit hour)

**OMM 4101B Osteopathic Manual Medicine IV:** The students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. All students are encouraged to assess and treat as many patients as their preceptor allows. Students are encouraged to read chapters corresponding with clinical encounters during rotations and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. A one-page summary of patient encounters, including structural assessment, visceral correlations and proposed treatment/treatment provided will be submitted by each student. (0.5 credit hour)

**OSTE 1102 Fundamentals of Patient Safety and Clinical Quality I:** This online course is designed to provide medical students with an understanding of the circumstances related to patient safety within the health care setting. Topics covered include the basic vocabulary and concepts related to patient safety, the effect of systems on patient care, strategies for organizational change and teambuilding to achieve health care safety and quality, the impact of culture and teamwork on clinical outcomes, the root causes of clinical errors and how to learn from them, the basic vocabulary and concepts of clinical quality and risk, and models for assessing the improving quality. (0.5 credit hour)

**OSTE 1103A Professional Certification I:** The Professional Certification I course encompasses all activities that lie outside the traditional curriculum, but are required components for first-year DO students to accomplish. All students are required to achieve certification in Basic Life Support and Bloodborne Pathogens Training during the first academic year, and this training is a part of Professional Certifications I. The American Red Cross Disaster Health and Sheltering Course is an introduction to disaster response, assessment and collaboration that introduces students to the many facets of disaster response and mitigation. All university-wide interprofessional and professional integrity activities designed to give students authentic work-related experiences are included in this course as well. (0.5 credit hour)

**OSTE 1103B Professional Certification I:** This course encompasses personal development by giving students training in literature searches using accepted search engines and databases in the medical/health area, and basic instruction in the use of computer and network
facilities on campus. Depending on student scheduling it will also include selected components of OSTE 1103A. Students who choose to complete a summer research project will also complete mandatory research-related modules on Responsible Conduct of Research and Protection of Human Research Subjects and/or Animal Research provided by the Collaborative Institutional Training Initiative (CITI). (0.0 credit hours)

OSTE 1122 Geriatrics: This course will introduce the student to the core concepts in gerontology and geriatrics that will enable the future practitioner in any of the specialties to better address the unique health care needs of their older patient. Content areas include general principles of aging, preventive care of the older adult, core principles of geriatric medicine, the multi-disciplinary geriatric health care team and an overview of end-of-life issues. (2.5 credit hours)

OSTE 2102 Fundamentals of Patient Safety and Clinical Quality II: This online course is designed to provide medical students with a practical application of patient safety concepts and principles within the health care setting. Topics covered include how to communicate with patients and families, the relationship between infection control and patient safety, how adverse events associated with surgical and invasive procedures occur, and how to utilize safe practices within the workplace. (0.5 credit hour)

OSTE 2103A Professional Certification II: The Professional Certification II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year DO students to accomplish. All students are required to achieve recertification in Basic Life Support and Bloodborne Pathogens Training during the second academic year, and this training is a part of Professional Certifications II. The course also encompasses Advanced Cardiac Life Support, the next stage in emergency health training. Training in patient privacy regulations before clinical rotations is also included in this certifications course - HIPAA: Health Insurance Portability and Accountability Act of 1996. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients. In addition, all students will be required to take a mandatory, face-to-face board review course culminating in an in-person, timed COMSAE examination. (1.0 credit hour)

OSTE 2103B Professional Certification II: The Professional Certification II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year DO students to accomplish. All students are required to achieve recertification in Basic Life Support and Bloodborne Pathogens Training during the second academic year, and this training is a part of Professional Certifications II. The course also encompasses Advanced Cardiac Life Support, the next stage in emergency health training. Training in patient privacy regulations before clinical rotations is also included in this certifications course - HIPAA: Health Insurance Portability and Accountability Act of 1996. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients. In addition, all students will be required to take a mandatory, face-to-face board review course culminating in an in-person, timed COMSAE examination. (1.0 credit hour)

OSTE 2104A Early Clinical Experiences: This course includes three independent experiential learning laboratories that are required for second-year DO students. In the Gynecology Laboratory, hands-on experience using mannequin model training for gynecologic pelvic examination is followed by the primary learning experience — performance of a live “patient” pelvic examination. The second course area is a Neonatology Laboratory, offering students training in obtaining a history, performing a physical exam in the hospital nursery, charting in the nursery, care of the well newborn, common variants on physical exam and common genetic syndrome findings. The third setting is the Ophthalmology Laboratory in which visual acuity, funduscopy, eye patching, use of the slit lamp and tonometry are considered. (0.5 credit hour)

OSTE 2104B Early Clinical Experiences: Students not completing all of the course components of OSTE 2104A due to scheduling will do so during this course. (0.0 credit hours)
**OSTE 2119 Preventive Medicine/Nutrition:** An introduction to the role of clinical preventive medicine in promoting health and preventing disease, disability and premature death from a population-based perspective. The course examines the role of screening, chemoprophylaxis and behavior modification in achieving these goals. Emphasis is given to the role of the successful physician in promoting healthy lifestyles in the communities they serve. A major component of this course is an introduction to the principles of nutrition, especially as it relates to the prevention of disease. Students will be encouraged to review their own nutritional habits and the influence these may have on a physician’s role as patient counselor. (2.0 credit hours)

**OSTE 2120 Evidence-Based Medicine:** This course provides the student with an introduction to evidence-based methods to evaluate medical literature. This course approaches evidence-based medicine by means of lectures and literature review assignments. (1.0 credit hour)

**OSTE 2124 Infectious Disease/Public Health:** Emphasizes the major infectious diseases in terms of etiology, epidemiology, treatment, control and prevention. These diseases are discussed by individuals in the fields of infectious diseases and public health. The combination of didactic and case-based instruction will provide exposure to the basic science and clinic aspects of infectious diseases. (1.5 credit hours)

**OSTE 2125A Clinical Reasoning:** This is a clinically oriented course consisting of three components: simulation laboratory experiences, clinical reasoning lectures and Standardized Performance Assessment Laboratory (SPAL) experiences. The course provides the student with an introduction to essential reasoning skills needed in clinical practice. The course stresses assimilation and integration of information obtained during the history and physical examination, use of common statistical methods, establishment of differential diagnoses, appropriate laboratory and ancillary tests, and clinical decision-making. Students are responsible for all information of the spring term of academic year 2 taught up to the time of their simulation cases and SPAL experiences. The course approaches clinical reasoning through lectures, group discussion, clinical case simulations and SPAL experiences. (1.5 credit hours)

**OSTE 2125B Clinical Reasoning:** This is a clinically oriented course consisting of three components: simulation laboratory experiences, clinical reasoning lectures and Standardized Performance Assessment Laboratory (SPAL) experiences. The course provides the student with an introduction to essential reasoning skills needed in clinical practice. The course stresses assimilation and integration of information obtained during the history and physical examination, use of common statistical methods, establishment of differential diagnoses, appropriate laboratory and ancillary tests, and clinical decision-making. Students are responsible for all information of the spring term of academic year 2 taught up to the time of their simulation cases and SPAL experiences. The course approaches clinical reasoning through lectures, group discussion, clinical case simulations and SPAL experiences. (1.0 credit hour)

**OSTE 2140 Introduction to Clinical Clerkships:** The clinical clerkships are a time for accelerated learning and professional maturation in the skills of becoming a physician. This course serves as a bridge from pre-clinical study to clinical clerkships. It will present the clinical survival skills necessary for the art and practice of patient-centered health care. (1.0 credit hour)

**OSTE 3144A Clinical Rotations Year III:** Third year clinical rotations are the “core” rotations. These “core” rotations set the foundation for the clinical learning and preparation for fourth-year rotations and post-graduate training. During the third year, students will be a part of a yearlong site or in the non-yearlong track. The yearlong sites are currently located in seven states (including Iowa) where students will spend their entire third year doing their core rotations. The non-yearlong track allows students to pre-schedule (or select) a limited number of rotations in their desired geography as well as being within Iowa for the remainder of their rotations. Third-year core rotations include Family Medicine (8 weeks), General Internal Medicine (4 weeks), OB/GYN (4 weeks), General Pediatrics (4 weeks), Psychiatry (4 weeks) and General Surgery (4 weeks), Primary care selective (which includes Emergency Medicine – 4 weeks), Medicine/surgical subspecialty selective (4 weeks) and General Selective (4 weeks). (20.0 credit hours)

**OSTE 3144B Clinical Rotations Year III:** Third-year clinical rotations are the “core” rotations. These “core” rotations set the foundation for the clinical learning and preparation for 4th year rotations and post-graduate training. During the third year, students will be a part of a year-long site or in the non-year-long track. The year-long
sites are currently located in seven states (including Iowa) where students will spend their entire third year doing their core rotations. The non-year-long track allows students to pre-schedule (or select) a limited number of rotations in their desired geography as well as being within Iowa for the remainder of their rotations. Third year core rotations include: Family Medicine (8 weeks), General Internal Medicine (4 weeks), OB/GYN (4 weeks), General Pediatrics (4 weeks), Psychiatry (4 weeks) and General Surgery (4 weeks), Primary care selective (which includes Emergency Medicine – 4 weeks), Medicine/Surgical Subspecialty Selective (4 weeks) and General Selective (4 weeks). (20.0 credit hours)

OSTE 3151 Introduction to Health Systems and Policy: This online course is designed to provide medical students with an overview of the U.S. health care system, to include content related to reimbursement for health services, the organization of the health care delivery system, access to health services, public health issues, managed care and quality, the impact and importance of evidence-based medicine, the professionals that support physicians in practice, supply and demand issues related to physicians, specialty (physician) distribution, population-based medicine, community health assessment and the physician’s role and more. Formal and informal, financial and political relationships between and among system sectors will be considered. Regional patterns of care, trends, problems and potential solutions will be discussed/included. (1.0 credit hour)

OSTE 3160 Comprehensive Clinical Assessment: Students return to campus at the end of the third year to assess their current clinical knowledge and skills in order to identify gaps and remediate any deficiencies. The week consists of a computer-based standardized board-like exam, standardized patient encounters, a simulated patient encounter, and osteopathic manual medicine practical patient encounter, an osteopathic manual medicine written exam, and a review of the Electronic Resident Application Service (ERAS) and the residency match process. (1.0 credit hour)

OSTE 4144A Clinical Rotations Year IV: Fourth-year rotations include Family Medicine (4 weeks) and Selective (of Community Medicine, Rural Medicine, International Medicine or another Family Medicine – 4 weeks). Each student will have up to 36 weeks of elective time during their fourth year in order to be able to do “audition” rotations at the programs of their choice. One special highlight of the fourth-year is the international rotation availability. Students are allowed to do up to 8 weeks of international rotations. Also, we offer the ability of up to 8 weeks of research elective time (during the fourth-year). (20.0 credit hours)

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PATH 1109 General Pathology: Develops a basis for the biological interpretation of disease processes by integrating the changes in structure and function associated with diseases and the relationship of symptoms to lesions. (2.5 credit hours)

PHYS 1116 Medical Physiology: An introduction to basic principles of physiology from the cellular level (membrane potentials, receptor physiology, transport mechanisms) to organ systems (cardiovascular, nervous, respiratory, gastrointestinal, urinary-renal and endocrine). Emphasizes regulatory control interactions needed for a holistic understanding of homeostasis and pathophysiology of humans. The course uses lectures, laboratories and clinical scenarios to teach the control mechanisms. Physiology is an intermediate step in the progression of knowledge acquisition necessary for subsequent courses. Knowledge of anatomy and biochemistry is a prerequisite for understanding physiology and the application to pathophysiology. (6.5 credit hours)

PHARM 2115 Medical Pharmacology: This course introduces the basic principles of medical pharmacology and pharmacodynamics. The focus of the course is on the detailed mechanisms of drug actions and interactions as they relate to various clinical systems and pathologies. Several important topics in pharmacology are emphasized including autonomic pharmacology, neuropharmacology, cardiovascular pharmacology, pharmacogenomics, medical toxicology, herbal medicines and geriatric pharmacology. The course uses lecture, small group discussions, human
patient simulations and clinical scenarios to teach a holistic understanding of the appropriate use of drugs for therapeutic intervention. (5.5 credit hours)

**PSYC 1105 Behavioral Medicine:** Designed to introduce the student to the psychological, social, behavioral and cultural basis of clinical medicine, this course focuses on common patient problems and the circumstances that evoke important behavioral/emotional responses. The course serves as an introduction to managing these problems and assists the student in more effectively communicating with patients and peers. Students are introduced to theories of human development throughout the individual and family life cycle, and key transitions that may create individual/family stress. Students should develop increased insight into their own personal functioning and feelings. Each student participates in the Standardized Performance Assessment Laboratory (SPAL) with the goal of practicing communication skills introduced in the course. (2.0 credit hours)

**PSYC 2107 Psychiatry:** This is a clinical case-based course designed to introduce the student to the field of psychiatry, with a focus on learning basic psychiatric nomenclature, important defense mechanisms, methods of assessment and diagnosis using the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition – Text Revision, psychotherapeutic and pharmacological treatment modalities for common mental disorders, and psychiatric risk assessment. The student also is introduced to the stigmatization of persons seeking mental health services. Each student participates in the Standardized Performance Assessment Laboratory (SPAL) with the goal of practicing communication skills introduced in the course. (2.0 credit hours)

**SYST 2101 Cardiovascular System:** This course is a combination of didactic lectures and case presentations that provides a thorough exposure to both the basic science and clinical aspects of cardiovascular disease. (3.0 credit hours)

**SYST 2103 Hematology:** The course is designed to provide students with a thorough exposure to hematology, emphasizing basic science and clinical aspects pertinent to understanding normal function, pathophysiological derangements resulting in disease and appropriate diagnostic and treatment protocols utilized in addressing diseased states. (3.0 credit hours)

**SYST 2105 Renal System:** Provides the student with a foundation of basic and clinical aspects of the renal system through lectures and case presentations. An overview of current diagnosis and management of renal diseases will be presented. (3.0 credit hours)

**SYST 2106 Endocrine System:** Provides the student an overview of the basic science, the diagnosis and the management of common endocrine diseases. Clinical case presentations will illustrate common endocrine disorders. (2.5 credit hours)

**SYST 2111 Gastrointestinal (GI) System:** This course provides an in-depth study of gastrointestinal pathologies and their prevention and management so that the student receives an appropriate foundation for correlation with clinical clerkships. This is achieved through the integration of the basic and clinical sciences. (3.0 credit hours)

**SYST 2114 Respiratory System:** This course provides the student with an overview of the basic science and clinical aspects of the normal and pathophysiological functions of the respiratory system that will enable the student to recognize, understand, diagnose and treat the common clinical respiratory system conditions/diseases and to promote preventive interventions relevant to those common conditions. (3.0 credit hours)

**SYST 2116A Obstetrics/Gynecology Simulation Lab:** A comprehensive introduction to human reproduction with particular emphasis on gynecology, obstetrics and women’s health. (0.0 credit hours)

**SYST 2116B Obstetrics/Gynecology:** A comprehensive introduction to human reproduction with particular emphasis on gynecology, obstetrics and women’s health. (2.5 credit hours)

**SYST 2141 Neurology:** Provides the student with a working knowledge of the neurological problems most commonly seen in general practice and a familiarity with the temporal profile of a variety of neurologic diseases commonly encountered by a primary care physician. Students will learn to recognize a patient with a neurologic disorder, localize a lesion within the nervous system, generate a defensible differential diagnosis, initiate an appropriate diagnostic work-up and a rational management therapy. (2.0 credit hours)

**Elective Courses**

**BIOC 1122 Problem-Based-Learning (PBL) Biochemistry:** This elective is an advanced medical biochemistry course that is offered as an enhancement to
the traditional Biochemistry/Molecular Genetics course (BIOC 1102/1202). It is designed for those students with a background in biochemistry or those who are interested in going beyond the scope of the traditional course. Students who are intellectually inquisitive and those who are interactive by nature likely will benefit from and enjoy involvement in this course. The course utilizes a problem-based learning format focused on clinical case presentations of biochemical interest. The course employs a small group discussion format that demands active participation by all group members. The case study sessions provide a forum in which students develop problem-solving skills and achieve a deeper understanding of biochemical principles and processes as applied to clinical situations. In the sessions, the students play the dominant role in developing hypotheses, analyzing information and setting learning goals and objectives based on the information supplied in the case write-up. The role of the group facilitator in this scenario is not that of a director who leads the discussion, or as a source of information to be tapped by the group. Rather, the facilitator's role centers around keeping the discussion appropriately "on track," drawing all members of the group into the discussion and ensuring that a sufficient depth of understanding is attained by the group. (1.0 credit hour)

**INST 2003 Cranial Nerves – A Case-Based Approach:**
This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)

**INST 2005 Medicine and the Arts:** This course is designed to explore the intersections between the medical world and the arts. Intended for medical students and allied professionals with an interest in literature, visual arts, drama, television, and film, this course will deal with the rich legacy of human creativity as it relates to medicine and the society of humankind. The course is presented in a seminar format, providing extensive opportunities for discussion of many of the diverse and thought-provoking issues encompassed in modern health care. Elements of the course include completion of assigned readings, directed reviews of selected works, class discussion and participation. (1.0 credit hour)

**INST 2020 Beginning Medical Spanish:** Introduces the student to basic Spanish vocabulary, Spanish medical vocabulary, comprehension and sentence structure. Intended for students who have little or no proficiency in conversational Spanish. (1.0 credit hour)

**INST 2021 Dying in America: Palliative and End-of-Life Care:** This elective course is based upon the *Education for Physicians on End-of-Life Care* (EPEC) curriculum with an emphasis on selected components of the curriculum and incorporation of the humanities and the arts into the elective. This curriculum was developed for the medical profession in recognition that end-of-life care (ELC) has been neglected in the past. The EPEC curriculum seeks to provide health care professionals with skills and tools to assist them in providing competent and compassionate care. Competence in providing excellent ELC can ameliorate, but not eliminate, the fear, negative images and avoidance responses from individuals, including health care professionals, when confronted with their own death or the death of those who seek their care. This is especially true for physicians who have traditionally seen death as a failure of care. (1.0 credit hour)

**INST 2023 Intermediate Medical Spanish:** The purpose of this course is to teach communication with Spanish-speaking patients in order to form strong clinician-patient rapport. Students will learn a standardized universal Spanish that also includes many words and expressions that take on different meanings in different countries and regions. Latino patients will come from a variety of countries, education levels, socio-economic backgrounds and origins (whether urban or rural areas). This class will address some of those differences. (1.0 credit hour)

**INST 2024 Animal-Assisted Therapy and the Use of Service Animals:** The goal of this course is to acquaint future health care professionals with the wide variety of ways animals are used in animal-assisted activities, animal-assisted therapy, and as service animals in both physical and psychological support roles. The students will, through outside reading, class demonstrations, discussion, etc., obtain a deeper understanding of the value and ethics of using an animal as part of therapy. The course will meet for six or seven two-hour on-campus
sessions and make an off-campus trip to a hippotherapy center. (1.0 credit hour)

**INST 2026 Problem-Based Anatomy:** The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, *Problem-Based Anatomy*. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour)

**INST 2027 Forty-hour Cranial Course:** This forty-hour cranial course, sanctioned by the Cranial Academy, encompasses twenty hours each of lectures and labs. Upon completion, the student will have an understanding of the Cranial Concept and be able to evaluate and treat common cranial dysfunctions. Student will also be allowed to submit an application for membership in the Cranial Academy. (2.0 credit hours)

**INST 2030 Reproductive Health Choices:** Offered in partnership with Planned Parenthood of the Heartland as education and training for possible internships. Training will cover reproductive health and available reproduction options. Trainers from Planned Parenthood, under the supervision of the coordinator, will present the course material. (1.0 credit hour)

**INST 2031 Human Development:** An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

**INST 2032 Healthy Food Preparation: Nutritional Survival 101:** This course is designed to introduce the student to some basic methods for preparing meals that incorporate ingredients associated with health risk reduction. The emphasis will be on preparing healthy, tasty and economical dishes as simply as possible, utilizing regional cuisines from around the world. All dishes prepared will be eaten by participants. Students will be encouraged to share and demonstrate any cooking techniques they have acquired. (0.5 credit hour)

**INST 2036A Rural Medicine Educational Pathway:** This course, offered in the fall, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)

**INST 2036B Rural Medicine Educational Pathway:** This course, offered in the spring, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour) Prerequisite: INST 2036A

**INST 2039 Introductory Figure Drawing:** The ability to observe and interpret what is seen is critical for practicing clinicians. Over the past decade, several educational studies in this country and elsewhere have demonstrated that courses to train the eyes promote observational skills that can result in improved clinical and diagnostic acumen. This elective is an introduction to seeing and drawing the surface anatomy of the human body. It is intended as a way for DMU students to increase their ability to see clearly as a step toward excellence in clinical work. This course is therefore designed to promote a clearer understanding of the observed human form and to explore the basic factors of drawing the nude; name, structure, anatomy, design, and expression. Emphasis will be placed on accurate visualization and measurements of the human body and translation of those observations into imagery. (2.0 credit hours)

**INST 2043 Interviewing and Communication Skills for Enhanced Patient Care:** Intro to doctor-patient communication and assessment skills. Students will be introduced to theories and methods contributing to enhanced patient comfort and cooperation, and the promotion of positive health and lifestyle change. Role-playing. (1.0 credit hour)

**INST 2044 The Healer's Art:** The Healer’s Art addresses the growing loss of meaning and commitment experienced
by physicians in today’s stressful health care system. Prospective physicians arrive in medical school with high ideals and altruism, but many of them report that during residency and later practice their high principles seem to atrophy and fall away. The rate of physician dropout is climbing, owing to many external and internal pressures that wear away at the ideals and goals of many. The Healer’s Art is a process-based course that enables students and faculty to come together as a sharing community that helps both develop the ability to find meaning in their chosen career, throughout their lives. (1.0 credit hour)

INST 2063A Military Elective: This elective, offering in the fall, facilitates military professional development during medical school education. In addition to standard medical education, this elective can help prepare Medical Corps Officers for their military service. Our COM is already known in the military community to produce excellent physicians. Unfortunately, a stigma exists, with partial truth, that the typical military physician does not come prepared with adequate leadership skills and working military knowledge. With the help of this military elective, military students will leave DMU with the ability to heal and lead America’s service members. (0.5 credit hour)

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Prerequisite: INST 2063A

INST 2065 Coronary Circulation: Understanding the burden of coronary arterial disease requires contextual knowledge of the anatomy and physiology of the coronary circulation. Anatomically, this course will cover general concepts of blood vessel formation and remodeling, development of coronary vessels, the anatomy of the coronary vessels along with anomalies, and collateral circulation. Physiologically, methods of measuring coronary blood flow and its regulation and distribution will be considered. Lastly, anatomic and physiologic adaptations related to aging, exercise, and cardiac hypertrophy will be considered. (1.0 credit hour)

Prerequisites: ANAT 1101A, ANAT 1101B, PHYS 1116

INST 2070 Literature and Narrative Medicine: This course invites students to grow in their understanding of illness and healing through a survey of literature and narrative medicine. Utilizing the lens of patient, family care giver, physician healer and others who care for the ill and dying among us, students are encouraged to be open to increased self-awareness and to develop both compassion and resilience for their life of service in medicine. The eight two-hour sessions will be utilized to pursue the goal of increased self-awareness and broad-based cultural humility as it relates to illness and suffering and health and healing. (1.0 credit hour)

INST 2071 Community Health Immersion Project (CHIP): Through community experiences, this course examines cultural competencies and the barriers faced by medically underserved communities in the Des Moines area. (1.0 credit hour)

INST 2072 Tools for Teaching: This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods, execution of adult learning principles, and assessing student learning outcomes. (1.0 credit hour)

INST 2073A Global Health Learning Collaborative: The Global Health Learning Collaborative (GHLC) is an elective aimed at introducing students to the key concepts and principles of global health. Special focus will be given to socioeconomic, political and cultural forces that converge to shape health care systems globally. The global burden of disease and challenges for practicing health care professionals will also be addressed in order to better prepare students for work abroad. The goal of this course is to encourage students to critically assess global health efforts & develop innovative and pragmatic solutions to combat the health challenges seen worldwide. In this manner, GHLC hopes to inspire the next generation of global citizens from Des Moines University. (1.0 credit hour)

INST 2073B Global Health Learning Collaborative: A selected group of participants will have the opportunity to apply the theories learned in the classroom to action on
the ground during a week-long medical service trip. (1.0 credit hour) *Prerequisite: INST 2073A*

**INST 2076 From Stage to Clinic: Improv Skills in a Health Care Setting:** Through the experiential study of improv theater, students will use a fun, innovative and rejuvenating medium to develop their skill set as providers. Improv challenges students to break out of their shells and be humbly fearless. As students are placed in high-stress situations throughout their clinical years and careers, it is important that they have the confidence to speak to superiors and contribute to teams. Similar to SIM lab, students will have the opportunity to make mistakes and try new techniques in a safe and low-risk environment. (0.5 credit hour)

**INST 2077 Evolutionary Medicine and Health:** This elective is designed to introduce students to evolutionary theory and the evolutionary mechanisms underlying the origins of various human diseases and disorders and will also examine the benefits and costs of some of the suggested approaches toward treatment. (1.0 credit hour)

**INST 2078A Practical Foundations for Medical Education:** This course will provide students with the opportunity to explore the fundamentals of education including learning theory, assessment, lesson design, and self-evaluation through group discussion and reflective writing. Practice developing and implementing your own engaging lessons utilizing active learning approaches. Understand and be able to justify instructional choices. Prepare yourself for a career in academia by developing a robust teaching philosophy statement and the skills and knowledge necessary to continually improve your teaching practice. (1.5 credit hours)

**INST 2078B Applications of Practical Foundations for Medical Education:** This course will provide students with the opportunity to apply the concepts they learned in the pre-requisite course, Practical Foundations for Medical Education (INST 2078A). Students will complete lesson objective writing, design and implement educational experiences, and create student learning assessment tools. Students will develop and direct tutorial sessions for their peers in a manner congruent with their academic program’s curriculum. (1.0 credit hours) *Prerequisite: INST 2078A*

**RESCH 2100 Mentored Research Experience:** This course is designed to introduce students to conducting research in lab and clinical settings. Students must have a faculty mentor agree to supervise them prior to enrolling in the course. The specific goals for the research project will be determined along with the faculty mentor. (1.0 credit hour)

**Extended Pathways to Success**

The Extended Pathways to Success Program of the College of Osteopathic Medicine allows students experiencing academic difficulties or personal challenges the opportunity to reduce their course load. This strategy provides more time for study and academic counseling and the opportunity to develop improved study skills. Students in this alternative curriculum program will require additional time (e.g., five years) to complete the requirements for the D.O. degree.

The Extended Pathways to Success Program is administered by the Associate Dean for Academic Curriculum and Medical Programs with the assistance of the Academic Progress Committee, Center for Teaching and Learning, and the appropriate Course Directors. The Associate Dean for Academic Curriculum and Medical Programs will serve as the Faculty Advisor for all students in this alternative curriculum program.

**Program Outcomes**

To review the college’s outcome statistics (e.g., board exam pass rates, graduation rates, residency/internship match rates, etc.) and how they compare to national averages, please visit the program’s outcomes webpage.

**Graduation Requirements**

The University awards the professional degree of Doctor of Osteopathic Medicine (D.O.) upon recommendation of the faculty. The Academic Progress Committee reports annually to the college faculty the names of students who have met requirements for the doctoral degree. To graduate, a student must:

1. Show professional promise in the judgment of the faculty and receive the faculty’s recommendation for graduation.
2. Have attained 21 years of age.
3. Pass all required courses, systems, rotations, and examinations.
4. Be formally enrolled for at least two years at the COM.
5. Be of good moral character and emotionally stable.
6. Satisfactorily discharge all financial obligations to the University.
7. Complete all graduation requirements, including the graduation clearance process.
8. Pass Level 1 and Level 2 (CE and PE) of the COMLEX examinations.
9. Attend graduation ceremonies at which time the degree is conferred. Students graduating at midterm may be granted an exception to this requirement.

Licensure
Osteopathic physicians are required to be licensed by the states in which they practice. Each state has its own individual requirements for granting licensure. Generally, a license can be obtained by successful completion of all three parts of the Comprehensive Osteopathic Medical Licensing Exam (COMLEX) administered by the National Board of Osteopathic Medical Examiners, or by reciprocity from another state.

The COMLEX is given by the National Board of Osteopathic Medical Examiners and is divided into three parts. Level 1 and Level 2 (both Cognitive Evaluation and Performance Evaluation) are taken during the medical school years. Level 3 consists of a written examination that is usually taken during the first postgraduate year. The College requires that students pass Level 1 of the COMLEX before entering clinical rotations and pass Level 2 Cognitive Evaluation and Performance Evaluation before graduation.

Master of Science in Anatomy
The Master of Science in Anatomy (M.S.A.) program provides advanced training in anatomy and is designed to prepare students for a professional career in academic teaching. Educators and scientists who wish to further enhance their careers as teachers of the anatomical disciplines will also benefit from this program.

The program leading to the M.S.A. degree is designed to be completed in 24 months, but can take up to five years to be completed on a part-time basis. The curriculum includes first-year medical school classes, courses specifically designed for the anatomy master’s degree program and an extensive requirement to teach anatomy by assisting the anatomy faculty in this noble craft.

Students currently enrolled in the Doctor or Osteopathic Medicine (D.O.) program or Doctor of Podiatric Medicine (D.P.M.) program can also apply to the Anatomy program. The curriculum for dual degree students is designed to be completed during the first two years of their medical program. The emphasis for dual degree students is on expanding each student’s anatomical knowledge to better prepare him or her to enter medical specialties underpinned by anatomical knowledge.

Mission
To equip students for professional careers in anatomic teaching and scholarship and expand the fund of anatomic knowledge applicable to clinical practice.

Vision
The Anatomy Graduate Program aims to develop educators, scholars and clinicians capable of advancing the discipline of anatomy through teaching, scholarship and clinical practice.

Program Requirements
To be considered for admission, you must have a B.A. or B.S. or complete the requirements for a degree before enrollment. The degree should be in the biological or physical sciences; however, applicants with non-science degrees will be considered if they have a strong science background. The bachelor’s degree must be from a regionally accredited institution.

Applicants must submit entrance exam (e.g. MCAT, GRE, DAT) scores during the application process; scores more than three years old will not be accepted. A science GPA and cumulative GPA of 3.0 or higher are recommended and at least a “C” in each of the following prerequisite areas:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology/Zoology</td>
<td>8 semester hours, with lab</td>
</tr>
<tr>
<td>Inorganic Chemistry</td>
<td>8 semester hours, with lab</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>4 semester hours, with lab</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3 semester hours</td>
</tr>
</tbody>
</table>
Physics | 8 semester hours, with lab (may substitute 3 semester hours of Statistics)
English: Comp/Literature/Speech | 6 semester hours

Other recommended course work includes molecular biology, genetics, humanities, behavioral sciences and math/statistics.

Additional information can be found on the MSA Program Admissions Requirements website.

Program Application Process
Application to the Master of Science in Anatomy program is accepted through the online application system on the DMU website. Applicants are expected to demonstrate a superior ability in the biological and chemical sciences throughout their undergraduate and graduate course work and standardized test results. Three letters of recommendation are required and are used to assess a candidate's potential for graduate study.

Detailed information regarding the process can be found on the MSA Program Admissions website.

Competitive candidates for admission will be invited to Des Moines University to tour the facilities, meet faculty and graduate students and have a formal interview.

A student may request transfer credit for previous graduate work completed at other regionally accredited (or equivalent) educational institutions. The request should be submitted in writing to the Program Director who will forward it to the faculty. Approved transfer credits will be entered on the student's permanent record by the Registrar's Office. No more than 10.0 hours of approved graduate work will be applied toward the 40.5 hours required for the degree.

Technical Standards for Admission, Academic Promotion and Graduation
A candidate for the Master of Science in Anatomy degree must have abilities and skills in five areas: observation; communication; motor; intellectual, conceptual, integrative and quantitative; and behavioral and social attributes. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a Master of Science. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms for academic promotion as defined in the Student Handbook.

Technical Standards for Admission, Academic Promotion and Graduation

Curriculum Overview and Outline
The Master of Science in Anatomy is a 40.5 credit hour program of study. The student must successfully complete 37.5 credit hours of required course work and three hours of elective course work.

The curriculum is designed to immerse students in the discipline of anatomy while honing their teaching and presentation skills. Through the courses, teaching hours, individual journaling, laboratory work and research, students will develop a deep knowledge of anatomy and an exceptional ability to share that knowledge.

Year 1
- ANAT 1101A, Gross Anatomy, 4.0 credit hours
- ANAT 1101B, Gross Anatomy, 2.5 credit hours
- ANAT 1104, Neuroanatomy, 2.0 credit hours
- BIOC 1102, Biochemistry and Molecular Genetics, 4.5 credit hours
- HIST 1106, Medical Cell and Tissue Biology, 3.0 credit hours
- PHYS 1116, Medical Physiology, 6.5 credit hours

Year 2
- MPH 650, Basic Statistics and Research, 3.0 credit hours
- MSA 2A01, Seminar in Anatomy I, 1.0 credit hour
- MSA 2A02, Seminar in Anatomy II, 1.0 credit hour
- MSA 2A03, Human Development, 2.0 credit hours
- MSA 2A04, Teaching in Anatomy, 4.0 credit hours*
- MSA 2A10, Preparation for the Comprehensive Exam, 2.0 credit hours
- MSA 2A14, Teaching in Anatomy I, 2.0 credit hours
MA 2A18, Advanced Dissections in Anatomy I, 1.0 credit hour
MA 2A24, Teaching in Anatomy II, 2.0 credit hours
MA 2A28, Advanced Dissections in Anatomy II, 1.0 credit hour

*Required for dual degree students only.

**Electives**

INST 2003, Cranial Nerves – A Case Based-Approach, 1.0 credit hour
INST 2026, Problem-Based Anatomy, 1.0 credit hour
INST 2065, Coronary Circulation, 1.0 credit hour
LAB 2115, Basic Surgical and Medical Skills, 1.0 credit hour
MBS 1B04A, Cell Biology I, 1.5 credit hours
MBS 1B04B, Cell Biology II, 1.5 credit hours
MICR 1103, Microbiology and Immunology, 6.0 credit hours
MSA 2A07, Research, 1.0-2.0 credit hours
MSA 2A11, Tools for Teaching, 1.0 credit hour
MSA 2A12, Literature Review, 3.0 credit hours
PATH 1109, General Pathology, 2.5 credit hours

** 3.0 credit hours required for primary degree; 6.0 credit hours required for dual degree.

Curriculum Outline and Electives

In addition to course work, students in the program must complete the comprehensive examination in anatomy. Information regarding the exam can be reviewed on the program’s webpage.

Course Descriptions

ANAT 1101A Gross Anatomy: The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic anatomy. This course will include the anatomical relationships of the pelvis, perineum, and the lower and upper limbs. (2.5 credit hours)

ANAT 1104 Neuroanatomy: The structural and functional organization of the central nervous system is presented through lectures and laboratory/computer demonstrations on parts of the brain and spinal cord. The course covers the role of the brain and spinal cord in sensory perception and movement of the human body, including organs and behavioral responses. Wherever possible, case studies and appropriate syndromes are also presented. (2.0 credit hours)

BIOC 1102 Biochemistry and Molecular Genetics: An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (4.5 credit hours)

HIST 1106 Medical Cell and Tissue Biology: A comprehensive study of human cell biology, basic tissues and organ systems (e.g., cardiovascular, gastrointestinal, integumentary and lymphoid). Wherever possible, the study of histology is translated to clinical relevance. The course consists of regularly scheduled lectures, self-directed laboratory experiences, and collaborative learning exercises. (3.0 credit hours)

MPH 0650 Basic Statistics and Research: This is an introductory course that exposes the student to the use of statistical techniques for health care data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and introduction to the use of multivariate statistical techniques. Students will learn to apply statistical techniques for decision making and/or research data analysis. (3.0 credit hours)

MSA 2A01 Seminar in Anatomy I: Review, discussion and presentation of topics related to anatomy research and teaching. (1.0 credit hour). Prerequisites: ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03
MSA 2A02 Seminar in Anatomy II: Review, discussion and presentation of topics related to anatomy research and teaching. (1.0 credit hour). Prerequisites: ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

MSA 2A03 Human Development: An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

MSA 2A04 Teaching in Anatomy: This course will allow dual-degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (4.0 credit hours). Prerequisites: ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

MSA 2A10 Preparation for the Comprehensive Examination: This course prepares students for the final requirement of the anatomy graduate program, the comprehensive examination. Students will learn how to write comprehensive examination questions and grading rubrics to assess knowledge of the four core disciplines of gross anatomy, cell and tissue biology, neuroanatomy, and human development, and writing and critical thinking skills. Students will ultimately answer questions generated and evaluated by their peers as a way to expose and correct their weaknesses in knowledge of the core anatomical disciplines as well as written and critical thinking skills. At the end of the course, students will sit for mock comprehensive examinations to emulate the actual experience. (2.0 credit hours). Prerequisites: ANAT 1101A, ANAT 1101B, HIST 1106, MSA 2A03

MSA 2A14 Teaching in Anatomy I: This course will allow primary degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (2.0 credit hours). Prerequisites: ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

MSA 2A18 Advanced Dissections in Anatomy I: The course will allow students to dissect either the head and neck, back, thorax or abdomen of the human cadaver to further their knowledge of these anatomical regions. Students, under supervision by the faculty, will prepare prosections of specific areas of the human cadaver, which will be presented to the first year DO/DPM class in the form of an oral presentation. Students will be assessed by the quality of their dissection and presentation. (1.0 credit hour). Prerequisite: ANAT 1101A, ANAT 1101B

MSA 2A24 Teaching in Anatomy II: This course will allow primary degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (2.0 credit hours). Prerequisites: ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

MSA 2A28 Advanced Dissections in Anatomy II: The course will allow students to dissect either the pelvis, perineum or upper and lower limbs of the human cadaver to further their knowledge of theses anatomical regions. Students, under supervision by the faculty, will prepare prosections of specific areas of the human cadaver, which will be presented to the first year DO/DPM class in the form of an oral presentation. Students will be assessed by the quality of their dissection and presentation. (1.0 credit hour). Prerequisite: ANAT 1101A, ANAT 1101B

PHYS 1116 Medical Physiology: An introduction to basic principles of physiology from the cellular level (membrane potentials, receptor physiology, transport mechanisms) to organ systems (cardiovascular, nervous, respiratory, gastrointestinal, urinary-renal and endocrine). Emphasizes regulatory control interactions needed for a holistic understanding of homeostasis and pathophysiology of humans. The course uses lectures, laboratories and clinical scenarios to teach the control mechanisms. Physiology is an intermediate step in the progression of knowledge acquisition necessary for subsequent courses. Knowledge of anatomy and biochemistry is a prerequisite for understanding physiology and the application to pathophysiology. (6.5 credit hours)

Elective Courses

INST 2003 Cranial Nerves – A Case-Based Approach: This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)
**INST 2026 Problem-Based Anatomy:** The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, *Problem-Based Anatomy*. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour). Prerequisite: Consent of Instructor

**INST 2065 Coronary Circulation:** Understanding the burden of coronary arterial disease requires contextual knowledge of the anatomy and physiology of the coronary circulation. Anatomically, this course will cover general concepts of blood vessel formation and remodeling, development of coronary vessels, the anatomy of the coronary vessels along with anomalies and collateral circulation. Physiologically, methods of measuring coronary blood flow and its regulation and distribution will be considered. Lastly, anatomic and physiologic adaptations related to aging, exercise and cardiac hypertrophy will be considered. (1.0 credit hour) Prerequisite: ANAT 1101A, ANAT 1101B, PHYS 1116

**LAB 2115 Basic Surgical and Medical Skills:** Under the direction of surgical residents and surgical nurses, second-year medical students learn basic aseptic technique, clinical and operative skills. Skills emphasis includes suturing and knot tying, foley catheter and nasogastric tube insertion, peripheral vascular access, venous cut-down and catheterization, cricothyroidotomy, chest tube insertion, arterial puncture and central line placement. Student application of new psychomotor skills is provided through hands-on procedure and computer simulation labs. (1.0 credit hour)

**MBS 1B04A Cell Biology I:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level biochemistry course is highly recommended. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: general laboratory techniques, genetics, molecular biology, transmembrane transport, and vesicular trafficking. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, and Pharmacology). (1.5 credit hours).

**MBS 1B04B Cell Biology II:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level biochemistry course is highly recommended and successful completion of Cell Biology I. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: cell signaling, moving molecules, tissue structure, cell death, and cell division. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, and Pharmacology). (1.5 credit hours)

**MICR 1103 Microbiology and Immunology:** Basic principles and clinical relevance of immune mechanisms and fundamentals of host-pathogen interactions are presented. In addition, the course offers an introduction to the various subdisciplines of microbiology, with emphasis on facts and principles pertinent to the broad requirements for understanding infectious diseases. Bacterial, mycotic, parasitic and viral pathogens are considered, with major emphasis on clinical presentation and pathogenic mechanisms. Laboratory integration focuses on the common diagnostic modalities pertinent to the various infectious agents. (6.0 credit hours)

**MSA2A07 Research:** Research under the supervision of a graduate faculty member. (1.0-2.0 credit hours). Prerequisite: Consent of Instructor

**MSA 2A11 Tools for Teaching:** This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods,
execution of adult learning principles and assessing student learning outcomes. (1.0 credit hour)

**MSA2A12 Literature Review**: This course will educate students in the conduct of a systematic literature review consistent with the competency standards recommended by the Association of College and Research Libraries. Specifically, students will learn to 1) identify needed information; 2) acquire the information efficiently and effectively; 3) critically read and evaluate the information; 4) effectively organize and communicate (orally and in writing) the information; and 5) legally and ethically acquire and use the information. (3.0 credit hours)

**PATH 1109 General Pathology**: Develops a basis for the biological interpretation of disease processes by integrating the changes in structure and function associated with diseases and the relationship of symptoms to lesions. (2.5 credit hours)

**Graduation Requirements**

The University awards the degree of Master of Science in Anatomy (M.S.) upon recommendation of the faculty. The Academic Progress Committee reports annually to the college faculty the names of students that have met requirements for the master’s degree.

To graduate, a student must:

1. Show professional promise in the judgment of the faculty and receive the graduate faculty’s recommendation for graduation.
2. Pass all required and elective courses and maintain a cumulative GPA of 3.0 or greater.
3. Maintain a cumulative GPA of 3.25 or greater in the four designated anatomy courses: Gross Anatomy, Medical Cell and Tissue Biology, Neuroanatomy, and Human Development.
4. Successfully complete the Comprehensive Examination.
5. Be in attendance at Des Moines University for at least the final 30.0 credit hours of graduate study.
7. Satisfactorily discharge all financial obligations to the University.
8. Complete all graduation requirements, including the graduation clearance process.

**Master of Science in Biomedical Sciences**

The Master of Science in Biomedical Sciences (M.S.B.S.) Program offers training for students interested in research/teaching careers at academic, government or private institutions. We will provide individuals aspiring for a health science career an opportunity to become prepared for professional studies in the areas of medicine, education and research.

The program is designed to be completed in 24 months, but can take up to five years to be completed on a part-time basis. The curriculum includes first-year medical school classes, courses specifically designed for the biomedical science program and an intensive 18 months of bench research.

Students currently enrolled in the Doctor of Osteopathic Medicine (D.O.) program or Doctor of Podiatric Medicine (D.P.M.) program can also apply to the Biomedical Sciences program. Curriculum for dual degree students is designed to be completed within five years. The emphasis for dual degree students is on training clinician researchers to teach research methods and conduct methodologically rigorous and scientifically sound studies.

**Mission**

To educate diverse groups of highly competent and collaborative biomedical scientists prepared to address problems of human health through basic and clinical research.

**Vision**

A cultivator of exceptional student researchers who discover and disseminate new knowledge that contributes to the advancement of the treatment, cure, and prevention of human disease.

**Program Requirements**

To be considered for admission, you must have a B.A. or B.S. or expect to complete the requirements for a degree before enrolling. Your undergraduate degree should be in the biological or physical sciences; however, applicants with non-science degrees will be considered if they have a strong science background. The degree must be conferred from a regionally accredited institution.
Applicants must submit entrance exam (e.g., MCAT, GRE, DAT) scores during the application process. A science GPA and cumulative GPA of 2.8 or higher are recommended. The following courses are required for admission:

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<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology/Zoology</td>
<td>8 semester hours with lab</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>8 semester hours with lab</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>4 semester hours with lab</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3 semester hours</td>
</tr>
<tr>
<td>Physics</td>
<td>8 semester hours with lab (may substitute 3 semester hours of Statistics)</td>
</tr>
<tr>
<td>English: Comp/Lit/Speech</td>
<td>6 semester hours</td>
</tr>
</tbody>
</table>

Other recommended course work includes cell biology, microbiology, immunology, physiology and anatomy.

Additional information can be found on the MSBS Program Admissions Requirements website.

**Technical Standards for Admission, Academic Promotion and Graduation**

A candidate for the Master of Science in Biomedical Sciences degree must have abilities and skills in five areas: observation; communication; motor; intellectual, conceptual, integrative and quantitative; and behavioral and social attributes. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a Master of Science. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms for academic promotion as defined in the Student Handbook.

**Curriculum Overview and Outline**

The Master of Science in Biomedical Sciences program is a two-year program that offers diverse opportunities in the specialties biochemistry, microbiology, pharmacology, physiology and pathology. Students are required to complete a total of 50.0 credit hours (25.5 credit hours in the classroom and 24.5 credit hours of bench research and thesis).

Students select a laboratory in their first year while completing the majority of their course work. The second year focuses primarily on research and thesis. Throughout the program students enjoy beneficial learning and working relationships with each other and with faculty dedicated to their success.

**Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOC 1112, Biochemistry and Molecular Genetics</td>
<td>5.0 credit hours</td>
</tr>
<tr>
<td>MBS 1B02, Intro to Research</td>
<td>3.0 credit hours</td>
</tr>
<tr>
<td>MBS 1B03, Responsible Conduct Biomedical Research</td>
<td>1.0 credit hour</td>
</tr>
<tr>
<td>MBS 1B04A, Cell Biology I</td>
<td>1.5 credit hours</td>
</tr>
<tr>
<td>MBS 1B04B, Cell Biology II</td>
<td>1.5 credit hours</td>
</tr>
<tr>
<td>MBS 1B06, Intro to Biostatistics</td>
<td>2.0 credit hours</td>
</tr>
</tbody>
</table>

29
MBS 2B10, Research, 2.5-4.0 credit hours
MBS 2B12, Thesis, 1.0 credit hour
MICR 1103, Microbiology and Immunology, 6.0 credit hours*
PHYS 1116, Medical Physiology, 6.5 credit hours*

*One of these courses is required depending on the emphasis selected.

**Year 2**

MBS 2B04, Presentation of Scientific Information, 1.0 credit hour
MBS 2B05, Scientific Communications, 1.0 credit hour
MBS 2B10, Research, 13.5-15.0 credit hours
MBS 2B12, Thesis, 6.0 credit hours

**Electives**

MBS 1B05, Special Topics in Pharmacology, 1.5 **
MBS 1B11, Special Topics in Microbiology and Immunology, 3.5 credit hours**

**One of these courses is required depending on the emphasis selected.

Curriculum Outline and Electives

In addition to course work, students in the program must successfully write and defend a thesis to receive their master’s degree from Des Moines University.

Course Descriptions

**BIOC 1112 Biochemistry and Molecular Genetics:** An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (5.0 credit hours)

**MBS 1B02 Intro to Research:** The course is designed to provide students with an introduction to research opportunities and laboratory safety procedures/policies at Des Moines University. Students will complete a survey of research at Des Moines University, biomedical safety training and two five-week laboratory rotations. This course is designed to prepare students to work safely in a research environment and identify a thesis mentor. (3.0 credit hours)

**MBS 1B03 Responsible Conduct Biomedical Research:** The course will be presented in a conference style setting with a small group of learners along with online learning and assessment. Formal presentation of foundational material will be presented with discussion of the material presented and presentation of examples. Each subject area raises ethical considerations and learners will be provided with a scenario. The learners will review the scenario and offer brief comments on the ethical issue during course meetings. Writing assignments will include a writing portion of a Patient Consent form or formatted abstract, each to be completed outside of class. Completion of an online class covering Human Subjects Research and Responsible conduct of research, and biosafety will be required to receive credit. The overarching goal of this course will be to allow the learner to understand the basic principles of biomedical and clinical research and the ethical application of these principles. The learner will be prepared to take the first steps in identifying a problem and creating a credible research design to address it. For medical students, the course will enable the student to enter an internship or residency program with sufficient background to confidently approach the assignments for conducting research that are increasingly required in many training programs. (1.0 credit hour)

**MBS 1B04A Cell Biology I:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level biochemistry course is highly recommended. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: general laboratory techniques, genetics, molecular biology, transmembrane transport, and vesicular trafficking. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, & Pharmacology). (1.5 credit hours).

**MBS 1B04B Cell Biology II:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level
biochemistry course is highly recommended and successful completion of Cell Biology I. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: cell signaling, moving molecules, tissue structure, cell death, and cell division. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, & Pharmacology). (1.5 credit hours)

**MBS 1B06 Intro to Biostatistics:** This is an introductory course that exposes the student to the use of statistical techniques for research data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and the use of multivariate statistical techniques. (2.0 credit hours)

**MBS 2B04 Presentation of Scientific Information:** This is a one-hour-per-week class where students learn the basis of scientific presentation and practice these concepts by participating in journal club presentations. (1.0 credit hour)

**MBS 2B05 Scientific Communications:** This is a one-hour class in which students will present their scientific data to the University during the Friday Seminar Series. In addition, students will attend all of the Friday Seminar Series lectures. (1.0 credit hour)

**MBS 2B10 Research (Microbiology or Physiology/Pharmacology Emphasis):** Bench research under the supervision of thesis advisor and thesis committee. (17.5 credit hours). *Prerequisite: Thesis committee approval*

**MBS 2B12 Thesis:** All MSBS students are required to complete a Thesis. The thesis is the culmination of the student's research as well as their knowledge developed over their entire program. (7.0 credit hours)

**MICR 1103 Microbiology and Immunology:** Basic principles and clinical relevance of immune mechanisms and fundamentals of host-pathogen interactions are presented. In addition, the course offers an introduction to the various subdisciplines of microbiology, with emphasis on facts and principles pertinent to the broad requirements for understanding infectious diseases. Bacterial, mycotic, parasitic and viral pathogens are considered, with major emphasis on clinical presentation and pathogenic mechanisms. Laboratory integration focuses on the common diagnostic modalities pertinent to the various infectious agents. (6.0 credit hours)

**PHYS 1116 Medical Physiology:** An introduction to basic principles of physiology from the cellular level (membrane potentials, receptor physiology, transport mechanisms) to organ systems (cardiovascular, nervous, respiratory, gastrointestinal, urinary-renal and endocrine). Emphasizes regulatory control interactions needed for a holistic understanding of homeostasis and pathophysiology of humans. The course uses lectures, laboratories and clinical scenarios to teach the control mechanisms. Physiology is an intermediate step in the progression of knowledge acquisition necessary for subsequent courses. (6.5 credit hours). *Prerequisite: BIOC 1112*

**Elective Courses**

**MBS 1B05 Special Topics in Pharmacology:** An advanced class in pharmacology using a combination of lectures and primary literature to develop a sense of history, depth and emerging concepts in the field. (1.5 credit hours). *Prerequisite: Consent of Instructor*

**MBS 1B11 Special Topics in Microbiology and Immunology:** An advanced class in microbiology and immunology using a combination of lectures and primary literature to develop a sense of history, depth and emerging concepts in the field. (3.5 credit hours). *Prerequisite: Consent of Instructor*

**Graduation Requirements**

The University awards the degree of Master of Science in Biomedical Sciences (M.S.) upon recommendation of the faculty. The Academic Progress Committee reports annually to the college faculty the names of students that have met requirements for the master's degree.

To graduate, a student must:

1. Show professional promise in the judgment of the faculty and receive the graduate faculty's recommendation for graduation.
2. Successfully complete all required and elective courses and obtain a final cumulative GPA of 3.0 or higher.
3. Successfully complete and defend their thesis.
4. Make continual research project progress commensurate with successful thesis completion.
5. Be in attendance at the College of Medicine for the last 30 credits.
7. Satisfactorily discharge all financial obligations to the University.
8. Complete all graduation requirements, including the graduation clearance process and a Petition to Graduate form. The Petition to Graduate form can be found on the website.

Doctor of Podiatric Medicine

The scope of podiatric medicine goes beyond foot care by emphasizing the importance of the foot to a person’s overall health and well-being.

Podiatric doctors treat patients who have a range of foot problems; they prevent, diagnose and treat disorders and diseases of the foot and ankle for patients of all ages. They surgically and orthopedically correct foot and ankle problems, care for patients with diabetes who are vulnerable to limb-threatening complications and treat patients with medical conditions such as poor circulation, gout, neurological disorders and arthritis.

Program Requirements

The majority of students matriculating to DMU-CPMS will have earned a bachelor’s degree before enrolling at DMU. You may apply while working toward completion of the requirements for your degree, and you will have the opportunity to indicate this on your application. Bachelor’s degrees must be conferred by a regionally accredited institution. In some situations, exceptional students may be considered for admission after completing only three years (90 semester hours) of undergraduate work at a regionally accredited institution.

Applicants must submit entrance exam (e.g. MCAT) scores during the application process; scores no older than three years are preferred. A science GPA and cumulative GPA of 2.7 or higher are recommended to be considered for admission. The following courses are required for admission:

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>8 semester hours, with lab</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>8 semester hours, with lab</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>8 semester hours, with lab (may substitute 4 semester hours of Biochemistry)</td>
</tr>
<tr>
<td>Physics</td>
<td>8 semester hours, with lab</td>
</tr>
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Other recommended course work includes biochemistry, genetics, comparative anatomy, mathematics, psychology and medical terminology.

College of Podiatric Medicine and Surgery

The College of Podiatric Medicine and Surgery was established in 1981 as one of the colleges of Des Moines University. As the profession’s first college within a health sciences university, the college provides a unique opportunity for students and the podiatric medical profession to focus on the delivery of podiatric medical services as an integral part of the health care team.

Mission

To educate a diverse group of highly competent and compassionate podiatric health professionals to improve lives in a global community.

Vision

- Education: CPMS will be a leader in innovative podiatric medical education that promotes lifelong learning.
- Research: CPMS will be a leader in discovering new knowledge through collaborative faculty and student initiatives that advances the profession.
- Service: CPMS will be a leader in providing medical education and patient care services that improve the health and well-being of the community.
- Collaboration: CPMS will cultivate internal and external collaborative relationships to enhance podiatric medical education and advance the profession.

Doctor of Podiatric Medicine

The scope of podiatric medicine goes beyond foot care by emphasizing the importance of the foot to a person’s overall health and well-being.

Podiatric doctors treat patients who have a range of foot problems; they prevent, diagnose and treat disorders and diseases of the foot and ankle for patients of all ages. They surgically and orthopedically correct foot and ankle problems, care for patients with diabetes who are vulnerable to limb-threatening complications and treat patients with medical conditions such as poor circulation, gout, neurological disorders and arthritis.

Program Requirements

The majority of students matriculating to DMU-CPMS will have earned a bachelor’s degree before enrolling at DMU. You may apply while working toward completion of the requirements for your degree, and you will have the opportunity to indicate this on your application. Bachelor’s degrees must be conferred by a regionally accredited institution. In some situations, exceptional students may be considered for admission after completing only three years (90 semester hours) of undergraduate work at a regionally accredited institution.

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</tr>
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<td>English: Comp/Literature/Speech</td>
<td>6 semester hours</td>
</tr>
</tbody>
</table>

Other recommended course work includes biochemistry, genetics, comparative anatomy, mathematics, psychology and medical terminology.
Additional information can be found on the DPM Program Admissions Requirements website.

**Program Application Process**

Application to the Doctor of Podiatric Medicine Program is accepted through the American Association of Colleges of Podiatric Medicine Application Service (AACPMAS), which is a centralized application service. In addition to the application, two letters of recommendation are required to complete the file prior to review.

Detailed information regarding the process can be found on the DPM Program Admissions website.

Competitive applicants will be invited to participate in an on-campus interview. Generally, applicants will receive a response to their application within two weeks of the interview.

Students wishing to be considered for transfer into the DPM program from another podiatric program must meet the following criteria:

- Student must be enrolled in a CPME-, COCA- or LCME-accredited institution.
- Student must be in good academic standing defined as no academic deficiencies exist.
- Student must have a cogent reason for requesting transfer.
- Student must meet the requirements for admission as a first-year student as outlined in the previous section.
- Student must submit a formal letter of request stating reasons for transfer.
- Student must submit a supportive letter of recommendation from the dean of his/her current medical school stating student is in good academic standing.
- Student must submit official transcripts from his/her current school and all other institutions attended, including undergraduate institutions.
- Student requesting transfer must have passed APMLE Part I if requesting transfer at the completion of the second year.
- Student must be willing to attend an on-campus interview by request.
- A review of transcripts will determine what credit will be granted if any for prior course work, as well as which CPMS courses will be required prior to graduation.
- Student must be enrolled at DMU a minimum of two years and meet all graduation requirements of the Student Handbook.
- Student must complete a criminal background check prior to transfer.
- Student must not have any felony convictions or had violations of professional or moral conduct.

Additional information regarding eligibility, application process and requirements can be obtained by contacting the Admissions Office.

**Technical Standards for Admission, Academic Promotion and Graduation**

A candidate for the Doctor of Podiatric Medicine degree must have abilities and skills in eight areas: observation; communication; motor; sensory; strength and mobility; visual integration; intellectual, conceptual, integrative and quantitative; and behavioral and social attributes. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.  

[Technical Standards for Admission, Academic Promotion and Graduation](#)

**Curriculum Overview and Outline**

The College of Podiatric Medicine and Surgery prepares podiatric medical students through an integrated program of didactic, laboratory and clinical experiences in hospitals and ambulatory care facilities.

Students receive a core of basic science instruction based on an integrated systems curriculum reflecting the interrelationship and interdependence of body systems. This is an innovative method of instruction that focuses on the systems of the body (e.g., hematological, cardiovascular). The basic sciences (e.g., anatomy, microbiology, biochemistry) are taught as they apply to the specific system under study. Clinical correlations relate each system to podiatric medical practice.
The basic science curriculum for podiatric medical students is essentially the same as the curriculum for students in the College of Osteopathic Medicine as classes are taught jointly. Additional comprehensive instruction in the functional anatomy of the lower extremity is provided to students in the College of Podiatric Medicine and Surgery. The body system courses taught in the second year are designed to meet the educational needs of podiatric medical students.

During the last 24 months of the four-year course of study, students receive clinical experiences in ambulatory clinics, hospitals and community practices. During this phase, podiatric medical students interact with other members of the health care community, such as primary care physicians, specialists and students in other health care programs. Emphasis is upon developing an understanding of podiatric medicine as an integral part of total health care.

**Year 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 1101A</td>
<td>Gross Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>ANAT 1101B</td>
<td>Gross Anatomy</td>
<td>2.5</td>
</tr>
<tr>
<td>ANAT 1104</td>
<td>Neuroanatomy</td>
<td>2.0</td>
</tr>
<tr>
<td>BIOC 1102</td>
<td>Biochemistry and Molecular Genetics</td>
<td>4.5</td>
</tr>
<tr>
<td>HIST 1106</td>
<td>Medical Cell and Tissue Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>HLTH 1107A</td>
<td>Clinical Medicine</td>
<td>2.0</td>
</tr>
<tr>
<td>HLTH 1107B</td>
<td>Clinical Medicine</td>
<td>1.5</td>
</tr>
<tr>
<td>MICR 1103</td>
<td>Microbiology and Immunology</td>
<td>6.0</td>
</tr>
<tr>
<td>OSTE 1122</td>
<td>Geriatrics</td>
<td>2.5</td>
</tr>
<tr>
<td>PATH 1109</td>
<td>General Pathology</td>
<td>2.5</td>
</tr>
<tr>
<td>PHYS 1116</td>
<td>Medical Physiology</td>
<td>6.5</td>
</tr>
<tr>
<td>POD 1223</td>
<td>Principles and Practice of Podiatric Medicine</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Year 2**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANAT 2211</td>
<td>Lower Limb Anatomy</td>
<td>3.0</td>
</tr>
<tr>
<td>PHARM 2115</td>
<td>Medical Pharmacology</td>
<td>5.5</td>
</tr>
<tr>
<td>POD 2204</td>
<td>Cultural Competency in Medicine</td>
<td>1.0</td>
</tr>
<tr>
<td>POD 2207</td>
<td>Clinical Podiatric Medicine and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>POD 2210</td>
<td>Biomechanics: Normal Structure and Function</td>
<td>2.0</td>
</tr>
<tr>
<td>POD 2220</td>
<td>Clinical Podiatric Biomechanics and Surgery</td>
<td>6.5</td>
</tr>
<tr>
<td>POD 2237</td>
<td>Summer Podiatric Medical and Surgery Rotation</td>
<td>4.0</td>
</tr>
<tr>
<td>SYST 2201</td>
<td>Clinical Skills 1: Cardio/Pulmonary</td>
<td>4.0</td>
</tr>
<tr>
<td>SYST 2205</td>
<td>Clinical Skills 4: Nephrology/GI/Nutrition</td>
<td>3.5</td>
</tr>
<tr>
<td>SYST 2206</td>
<td>Clinical Skills 2: Endocrine/Hematology</td>
<td>4.0</td>
</tr>
<tr>
<td>SYST 2241</td>
<td>Clinical Skills 3: Neurology/Behavioral Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>SYST 2244</td>
<td>Lower Extremity Dermatology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACLS 3202</td>
<td>Advanced Cardiac Life Support</td>
<td>0.5</td>
</tr>
<tr>
<td>POD 3205</td>
<td>Community Health</td>
<td>2.5</td>
</tr>
<tr>
<td>POD 3206</td>
<td>EBM Diagnostic Imaging</td>
<td>1.5</td>
</tr>
<tr>
<td>POD 3207</td>
<td>Emergency Medicine and Podiatric Trauma</td>
<td>2.5</td>
</tr>
<tr>
<td>POD 3210</td>
<td>Basic Surgical and Medical Skills</td>
<td>1.0</td>
</tr>
<tr>
<td>POD 3217A</td>
<td>Podiatric Medicine and Surgery Rotations</td>
<td>14.0</td>
</tr>
<tr>
<td>POD 3217B</td>
<td>Podiatric Medicine and Surgery Rotations</td>
<td>14.0</td>
</tr>
<tr>
<td>POD 3221</td>
<td>EBM Rearfoot Pathology</td>
<td>1.5</td>
</tr>
<tr>
<td>POD 3224</td>
<td>EBM Forefoot Pathology</td>
<td>1.5</td>
</tr>
<tr>
<td>POD 3225</td>
<td>EBM Infectious Disease</td>
<td>1.5</td>
</tr>
<tr>
<td>POD 3227</td>
<td>Emergency Medicine Simulation Rotation</td>
<td>1.0</td>
</tr>
<tr>
<td>POD 3228</td>
<td>Vascular Surgery Rotation</td>
<td>2.0</td>
</tr>
<tr>
<td>POD 3229</td>
<td>Internal Medicine Rotation</td>
<td>2.0</td>
</tr>
</tbody>
</table>
POD 3231, Community-Based Podiatric Medicine and Surgery Rotation, 4.0 credit hours

Year 4

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPD 4220</td>
<td>Podiatric Medicine and Surgery Rotation</td>
<td>24.0</td>
</tr>
<tr>
<td>CLPD 4221</td>
<td>Core Rotation</td>
<td>12.0</td>
</tr>
<tr>
<td>CLPD 4222</td>
<td>Private Practice Rotation</td>
<td>4.0</td>
</tr>
<tr>
<td>CLPD 4224</td>
<td>Medicine Rotation</td>
<td>4.0</td>
</tr>
<tr>
<td>POD 4217</td>
<td>Clinical Skills Assessment</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Curriculum Overview
Curriculum Sequence

Course Descriptions

ACLS 3202 Advanced Cardiac Life Support: In this course, third-year students enhance their skills in treating adult victims of cardiac arrest or other cardiopulmonary emergencies, while earning their American Heart Association ACLS (AHA ACLS) for Healthcare Providers Course Completion Card. (0.5 credit hour)

ANAT 1101A Gross Anatomy: The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic anatomy. This course will include the anatomical relationships of the back, head, neck, thorax and abdomen. (4.0 credit hours)

ANAT 1101B Gross Anatomy: The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic anatomy. This course will include the anatomical relationships of the pelvis, perineum, and the lower and upper limbs. (2.5 credit hours)

ANAT 1104 Neuroanatomy: The structural and functional organization of the central nervous system is presented through lectures and laboratory/computer demonstrations on parts of the brain and spinal cord. The course covers the role of the brain and spinal cord in sensory perception and movement of the human body, including organs and behavioral responses. Wherever possible, case studies and appropriate syndromes are also presented. (2.0 credit hours)

ANAT 2211 Lower Limb Anatomy: A comprehensive course in the functional anatomy of the lower limb. Podiatric medical students dissect and identify the detailed structures of the foot, leg and thigh in order to become expert in the structure and function of this region of the body. (3.0 credit hours)

BIOC 1102 Biochemistry and Molecular Genetics: An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (4.5 credit hours)

CLPD 4220 Podiatric Medicine/Surgery Rotation: Fourth-year students are required to complete 24 weeks of podiatric medical/surgical clinical rotations. These are four-week supervised hospital based rotations designed to provide students a clinical experience in podiatric medicine, podiatric radiology, podiatric surgery and biomechanics. The podiatric medicine rotation is selected by the student through the American Association of Colleges of Podiatric Medicine clerkship process. (24.0 credit hours)

CLPD 4221 Core Rotation: Fourth-year students complete a 12-week supervised hospital-based rotation designed to provide students equivalent didactic and clinical experience in podiatric medicine, podiatric radiology, podiatric surgery and biomechanics. The student will also complete two to four weeks of non-podiatric rotations determined by core facility resources and approved by the Associate Dean for Clinical Affairs. The core rotation is selected by the student through the Office for Clinical Affairs. (12.0 credit hours)

CLPD 4222 Private Practice Rotation: This four-week fourth-year supervised podiatric private practice rotation is designed to provide students a clinical experience in podiatric medicine with emphasis on aspects related to private practice such as federal and state regulations, exposure to insurance products, and practice management. (4.0 credits)

CLPD 4224 Medicine Rotation: Fourth-year students must complete a four-week rotation in family medicine,
内部医学或一个医学专业。该轮转旨在将学生暴露于各种医学专科的概念和技术。概念包括完成完整病史和体格检查，开发差异诊断列表并制定适当治疗计划。（4.0个学分）

**HIST 1106 Medical Cell and Tissue Biology:** 一项关于人体细胞生物学、基本组织和器官系统（例如，心血管、胃肠、皮下和淋巴系统）的全面研究。在可能的情况下，研究病理解剖学被翻译到临床相关性。该课程包括定期安排的讲座、自我指导的实验室体验和协作学习练习。（3.0学分）

**HLTH 1107A Clinical Medicine:** 该课程介绍学生在采访、病史采集和体格检查技能。实际实验室课程包括在获得患者的病史和进行物理检查时，强调正确使用诊断设备和技巧。例如，学生将学习对头、颈部、胸腔和肺部、乳腺、腋窝和腹部进行物理检查。标准化评估实验室（SPAL）被用于在现实中提供机会，评估临床技能与标准化的患者。 (2.0学分)

**HLTH 1107B Clinical Medicine:** 该课程介绍学生在采访、病史采集和体格检查技能。实际实验室课程包括在获得患者的病史和进行物理检查时，强调正确使用诊断设备和技巧。例如，学生将学习对男性和女性的生殖器官、肛门、直肠和前列腺，皮肤、指甲和头发，脚，周围血管系统，骨骼肌系统和神经系统进行物理检查。此外，学生将被暴露于对儿科、孕妇和老年人的物理检查。标准化评估实验室（SPAL）被用于在现实中提供机会，评估临床技能与标准化的患者。 (1.5学分)

**MICR 1103 Microbiology and Immunology:** 基本原理和临床相关性免疫机制和宿主-病原体交互的基本原理的临床相关性免疫机制和宿主-病原体交互的基本原理被介绍。此外，该课程提供了一个关于微生物学的初步介绍，强调理解和广义要求的病原体感染疾病。细菌、真菌、寄生虫和病毒病原体被考虑，重点放在临床呈现和病原体机制。实验室整合集中在各种传染性病原体的相关诊断方法。 (6.0学分)

**PHARM 2115 Medical Pharmacology:** 该课程介绍基本的医学药理学和药动学原理。课程的重点是药物作用和相互作用的详细机制，它们与各种临床系统和病理学有关。几个重要的药理学主题被强调，包括自主药理学、神经药理学、心血管药理学、药代遗传学、医学毒理学、草药和老年药理学。课程采用讲座、小组讨论、人患者模拟和临床情景来教授药物的综合理解。 (5.5学分)

**PHYS 1116 Medical Physiology:** 从细胞水平（膜电位、受体生理学、运输机制）到器官系统（心血管、呼吸、胃肠、尿液-肾和内分泌）的物理原理的简介。强调调节控制相互作用的需要，以对人类的生理学进行综合理解。该课程采用讲座、实验室和临床情景来教授控制机制。生理学是后续课程中知识获取的中间步骤。
of anatomy and biochemistry is a prerequisite for understanding physiology and the application to pathophysiology. (6.5 credit hours)

**POD 1223 Principles and Practices of Podiatric Medicine**: Is designed to familiarize the student with the governance and practice of podiatric medicine from the early days to the 21st century. The course introduces the student to professional expectations and provides an overview of the various components of podiatric medical education and clinical practice. (2.0 credit hours)

**POD 2204 Cultural Competency in Medicine**: This course is designed to introduce the student to the existence of health disparities and provide an opportunity to learn and engage in discussions about diverse populations. This will help the student to build stronger patient relationships, care for patients from diverse groups more effectively and improve health care outcomes. (1.0 credit hour)

**POD 2207 Clinical Podiatric Medicine and Diagnostics**: Prepares students for rotations through course emphasis on principles of physical diagnosis and medical records, radiology, nuclear medicine, rheumatology, peripheral vascular disease, overuse injuries, infectious disease and therapeutic intervention. (4.0 credit hours)

**POD 2210 Biomechanics**: Normal Structure & Function: Discusses the evolution, development and functional anatomy of the lower extremity, focusing on the principles of kinesiology, kinetics, kinematics, muscle physiology and bioengineering as they relate to the static and dynamic normal lower extremity. (2.0 credit hours)

**POD 2220 Clinical Podiatric Biomechanics and Surgery**: Covers lower extremity structural abnormalities as related to the compensating foot and lower limb. More complex orthopedic and biomechanical pathologies are considered and the relationship and interaction of mechanical, surgical and medical approaches are introduced. The course is designed to foster an appreciation for the biomechanical principles associated with complex foot and ankle surgery. (6.5 credit hours)

**POD 2237 Summer Podiatric Medicine and Surgery Rotation**: This four-week end-of-second-year clinical rotation is designed to introduce the podiatric medical student to clinical patient management, clinical protocol, basic instrumentation and medical record recording. Students are required to complete a basic set of professional and clinical skills. (4.0 credit hours)

**POD 3205 Community Health**: Introduces the student to fundamental principles and concepts associated with health care delivery and practice management systems. An overview of health-related epidemiology, medical jurisprudence and community health issues are covered in this course. (2.5 credit hours)

**POD 3206 EBM Diagnostic Imaging**: The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

**POD 3207 Emergency Medicine and Podiatric Trauma**: Students are introduced to various concepts regarding traumatic disorders of the lower extremity, including management of soft tissue injuries, fracture management and complications associated with traumatic injury. The emergency medicine component of the course reviews emergency and urgent-care situations that the podiatric medical specialist may encounter. (2.5 credit hours)

**POD 3210 Basic Surgical and Medical Skills**: Students learn principles of aseptic technique training according to national standards. These techniques include the surgical hand scrub, opening a sterile field, self and assisted gowning and gloving, open gloving, instrumentation identification and passing as well as sterile field presentation and maintenance. Students demonstrate these techniques under the direction of operating room nurses. Students also learn proper sterilization of and nomenclature for instruments. (1.0 credit hour)

**POD 3217A Podiatric Medicine and Surgery Rotations**: Third-year students will complete 28 weeks of podiatric medical and surgical rotations. These rotations take place at the Des Moines University Foot and Ankle Clinic and the VA Central Iowa Health Care System. Students will...
participate in podiatric medical and surgical care in both inpatient and outpatient centers. (14.0 credit hours)

**POD 3217B Podiatric Medicine and Surgery Rotations:** Third-year students will complete 28 weeks of podiatric medical and surgical rotations. These rotations take place at the Des Moines University Foot and Ankle Clinic and the VA Central Iowa Health Care System. Students will participate in podiatric medical and surgical care in both inpatient and outpatient centers. (14.0 credit hours)

**POD 3221 EBM Rearfoot Pathology:** The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

**POD 3224 EBM Forefoot Pathology:** The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

**POD 3225 EBM Infectious Disease:** The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

**POD 3227 Emergency Medicine Simulation Rotation:** This two-week third-year rotation is designed to expose students to concepts and techniques related to emergency medicine patient management. The rotation provides experience in history and physical examination, interpreting studies, CPR and identifying pathology related to cardiovascular, infectious disease, respiratory and orthopedic conditions. An important component of this rotation involves working as a member of a medical team. (1.0 credit hour)

**POD 3228 Vascular Surgery Rotation:** This two-week third-year rotation in vascular surgery is designed to provide students with a clinical experience related to history and physical examination techniques and management of patients with vascular pathology. (2.0 credit hours)

**POD 3229 Internal Medicine Rotation:** This two-week rotation in internal medicine is designed to expose third-year students to concepts and techniques presented in the preclinical curriculum. Concepts include performing complete history and physical examinations, developing differential diagnosis lists and formulating appropriate treatment plans. (2.0 credit hours)

**POD 3231 Community-Based Podiatric Medicine and Surgery Rotation:** This four-week rotation is designed to provide third-year students with a clinical experience in podiatric medicine, podiatric radiology, podiatric surgery and biomechanics under the supervision of a community-based podiatric physician in an office setting. (4.0 credit hours)

**POD 4217 Clinical Skills Assessment:** This course is designed to help the student develop into a well-rounded fourth-year student physician who is ready to enter residency training. The course will allow students to demonstrate successful completion of selected skills by utilizing a portfolio to evaluate three clinical cases and have core faculty sign off on various clinical competencies after demonstration. (1.0 credit hour)
SYST 2201 Clinical Skills 1: Cardio/Pulmonary: The course, along with pertinent previous basic and clinical science material, will provide an overall view of the heart, pulmonary and circulatory systems. It is the intent to establish a firm foundation on which to base new knowledge, which will be constantly accumulating throughout the student’s professional career. The first portion of the course will concentrate on the cardiovascular system, diseases and diagnosis. The last portion will concentrate on the pulmonary system, diseases and diagnostic methods. Diagnosis and management of the patient in both the office and the hospital will be considered in the lectures presented. (4.0 credit hours)

SYST 2205 Clinical Skills 4: Nephrology/GI/Nutrition: Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of renal, gastrointestinal and nutritional disorders that will be seen in podiatric practice. The renal section of the course provides a description of the structure and function of the renal system and of the interrelations with other clinical systems. Common renal diseases will be discussed with emphasis on podiatric manifestations. The gastrointestinal system portion of the course introduces the podiatric medical student to the principles of history taking and physical examination of patients with gastrointestinal disorders with emphasis on podiatric manifestations related to the gastrointestinal system. The nutritional system portion of the course will review the macro and micronutrient components of the typical American diet and the relationship between these and the maintenance of health and the prevention/treatment of the diseases that are relevant to a podiatric physician. (3.5 credit hours)

SYST 2206 Clinical Skills 2: Endocrine/Hematology: Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of endocrine/human reproduction and hematologic disorders that will be seen in podiatric practice. The endocrine/human reproduction section is designed to give the student of podiatric medicine an understanding of normal and abnormal function of the endocrine system. This understanding is important due to the clinical manifestations seen in the lower extremity. The hematology section is designed to assist the student understand the physician's approach to anemia, white blood cell disorders and bleeding disorders. The student will understand the many factors that contribute to thrombosis. In addition, the student will have an understanding of the use of blood by-products and the labs and tests associated with their use for patient care. (2.0 credit hours)

SYST 2241 Clinical Skills 3: Neurology/Behavioral Medicine: Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of neurological and behavioral disorders that will be seen in podiatric practice. The student will recognize normal and abnormal functioning of the central and peripheral nervous systems, as well as common behavioral problems and the circumstances that evoke behavioral/emotional responses. Although neurology has historically concerned itself with the organic basis of diseases and behavioral medicine with “functional” diseases that do not have a structural basis, the two disciplines are now more closely aligned. The course will focus on the underlying neuromotor disturbances that contribute to disease and explore the relationship between behavioral problems, psychiatric diagnoses and patient cooperation. (3.0 credit hours)

SYST 2244 Lower Extremity Dermatology: This course provides the podiatric medical student with an understanding of diagnosis and management skills for dermatological conditions affecting the lower extremity and the systemic diseases associated with skin and skin-related structures. (2.0 credit hours)

Elective Courses

BIOC 1122 Problem-Based-Learning (PBL) Biochemistry: This elective is an advanced medical biochemistry course that is offered as an enhancement to the traditional Biochemistry/Molecular Genetics course (BIOC 1102/1202). It is designed for those students with a background in biochemistry or those who are interested in going beyond the scope of the traditional course. Students who are intellectually inquisitive and those who are interactive by nature likely will benefit from and enjoy involvement in this course. The course utilizes a problem-based learning format focused on clinical case presentations of biochemical interest. The course employs a small group discussion format that demands active participation by all group members. The case study sessions provide a forum in which students develop problem-solving skills and achieve a deeper understanding of biochemical principles and processes as applied to
clinical situations. In the sessions, the students play the dominant role in developing hypotheses, analyzing information and setting learning goals and objectives based on the information supplied in the case write-up. The role of the group facilitator in this scenario is not that of a director who leads the discussion, or as a source of information to be tapped by the group. Rather, the facilitator's role centers around keeping the discussion appropriately “on track,” drawing all members of the group into the discussion and ensuring that a sufficient depth of understanding is attained by the group. (1.0 credit hour)

**INST 2003 Cranial Nerves – A Case-Based Approach:** This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)

**INST 2020 Beginning Medical Spanish:** Introduces the student to basic Spanish vocabulary, Spanish medical vocabulary, comprehension and sentence structure. Intended for students who have little or no proficiency in conversational Spanish. (1.0 credit hour)

**INST 2023 Intermediate Medical Spanish:** The purpose of this course is to teach communication with Spanish-speaking patients in order to form strong clinician-patient rapport. Students will learn a standardized universal Spanish that also includes many words and expressions that take on different meanings in different countries and regions. Latino patients will come from a variety of countries, education levels, socio-economic backgrounds and origins (whether urban or rural areas). This class will address some of those differences. (1.0 credit hour)

**INST 2024 Animal-Assisted Therapy and the Use of Service Animals:** The goal of this course is to acquaint future health care professionals with the wide variety of ways animals are used in animal-assisted activities, animal-assisted therapy, and as service animals in both physical and psychological support roles. The students will, through outside reading, class demonstrations, discussion, etc., obtain a deeper understanding of the value and ethics of using an animal as part of therapy. The course will meet for six or seven two-hour on-campus sessions and make an off-campus trip to a hippotherapy center. (1.0 credit hour)

**INST 2026 Problem-Based Anatomy:** The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, *Problem-Based Anatomy*. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour)

**INST 2031 Human Development:** An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

**INST 2032 Healthy Food Preparation: Nutritional Survival 101:** This course is designed to introduce the student to some basic methods for preparing meals that incorporate ingredients associated with health risk reduction. The emphasis will be on preparing healthy, tasty and economical dishes as simply as possible, utilizing regional cuisines from around the world. All dishes prepared will be eaten by participants. Students will be encouraged to share and demonstrate any cooking techniques they have acquired. (0.5 credit hour)

**INST 2036A Rural Medicine Educational Pathway:** This course, offered in the fall, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)

**INST 2036B Rural Medicine Educational Pathway:** This course, offered in the spring, is designed to promote and
foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)  

**INST 2048 Research in Podiatric Medicine and Surgery:** This course is primarily designed for second and third year CPMS students who are interested in conducting research in podiatric medicine and surgery. Must have faculty mentor agree to supervise to allow registration. (1.0 credit hour)  

**INST 2065 Coronary Circulation:** Understanding the burden of coronary arterial disease requires contextual knowledge of the anatomy and physiology of the coronary circulation. Anatomically, this course will cover general concepts of blood vessel formation and remodeling, development of coronary vessels, the anatomy of the coronary vessels along with anomalies, and collateral circulation. Physiologically, methods of measuring coronary blood flow and its regulation and distribution will be considered. Lastly, anatomical and physiologic adaptations related to aging, exercise, and cardiac hypertrophy will be considered. (1.0 credit hour)  

**Prerequisites:** ANAT 1101A, ANAT 1101B, PHYS 1116

**INST 2070 Literature and Narrative Medicine:** This course invites students to grow in their understanding of illness and healing through a survey of literature and narrative medicine. Utilizing the lens of patient, family care giver, physician healer and others who care for the ill and dying among us, students are encouraged to be open to increased self-awareness and to develop both compassion and resilience for their life of service in medicine. The eight two-hour sessions will be utilized to pursue the goal of increased self-awareness and broad-based cultural humility as it relates to illness and suffering and health and healing. (1.0 credit hour)  

**INST 2071 Community Health Immersion Project (CHIP):** Through community experiences, this course examines cultural competencies and the barriers faced by medically underserved communities in the Des Moines area. (1.0 credit hour)  

**INST 2072 Tools for Teaching:** This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods, execution of adult learning principles, and assessing student learning outcomes. (1.0 credit hour)  

**INST 2073A Global Health Learning Collaborative:** The Global Health Learning Collaborative (GHLC) is an elective aimed at introducing students to the key concepts and principles of global health. Special focus will be given to socioeconomic, political and cultural forces that converge to shape health care systems globally. The global burden of disease and challenges for practicing health care professionals will also be addressed in order to better prepare students for work abroad. The goal of this course is to encourage students to critically assess global health efforts & develop innovative and pragmatic solutions to combat the health challenges seen worldwide. In this manner, GHLC hopes to inspire the next generation of global citizens from Des Moines University. (1.0 credit hour)  

**INST 2073B Global Health Learning Collaborative:** A selected group of participants will have the opportunity to apply the theories learned in the classroom to action on the ground during a week-long medical service trip. (1.0 credit hour)  

**Prerequisite:** INST 2073A

**INST 2076 From Stage to Clinic: Improv Skills in a Health Care Setting:** Through the experiential study of improv theater, students will use a fun, innovative and rejuvenating medium to develop their skill set as providers. Improv challenges students to break out of their shells and be humbly fearless. As students are placed in high-stress situations throughout their clinical years and careers, it is important that they have the confidence to speak to superiors and contribute to teams. Similar to SIM lab, students will have the opportunity to make mistakes and try new techniques in a safe and low-risk environment. (0.5 credit hour)

**INST 2077 Evolutionary Medicine and Health:** This elective is designed to introduce students to evolutionary theory and the evolutionary mechanisms underlying the origins of various human diseases and disorders and will also examine the benefits and costs of some of the suggested approaches toward treatment. (1.0 credit hour)

**INST 2078A Practical Foundations for Medical Education:** This course will provide students with the opportunity to explore the fundamentals of education including learning theory, assessment, lesson design, and
self-evaluation through group discussion and reflective writing. Practice developing and implementing your own engaging lessons utilizing active learning approaches. Understand and be able to justify instructional choices. Prepare yourself for a career in academia by developing a robust teaching philosophy statement and the skills and knowledge necessary to continually improve your teaching practice. (1.5 credit hours)

**INST 2078B Applications of Practical Foundations for Medical Education:** This course will provide students with the opportunity to apply the concepts they learned in the pre-requisite course, Practical Foundations for Medical Education (INST 2078A). Students will complete lesson objective writing, design and implement educational experiences, and create student learning assessment tools. Students will develop and direct tutorial sessions for their peers in a manner congruent with their academic program’s curriculum. (1.0 credit hours)  

**Prerequisite:** INST 2078A

### Research

Research is a vital aspect of the podiatric curriculum. Students receive instruction in research design and methodology, compliance issues and the principles of evidence-based medicine. Faculty and students are involved in a variety of research projects leading to peer-reviewed publication and scientific presentation. A biomechanics human performance laboratory supports the research of several faculty from the College of Podiatric Medicine and Surgery and the College of Health Sciences.

Students can become involved in research projects with basic scientists or clinicians. This typically includes major participation in the preparation of the research protocol, preparation of grant applications and significant involvement in data collection and analysis. In some instances, the research has led to the publication of papers in professional journals.

### Clinical Affiliations

The college has affiliations with numerous medical centers throughout the United States. Podiatric and other medical staff members of these institutions hold clinical faculty appointments.

- Des Moines University Clinic
- Des Moines University Foot and Ankle
- Veterans Administration Central Iowa Health Care System
- Adair County Memorial Hospital
- Iowa Methodist Medical Center
- Broadlawns Medical Center
- Iowa Lutheran Medical Center
- Iowa Methodist Medical Center
- Mercy Hospital Medical Center

**Hospital Clinical Affiliations**

- Broadlawns Medical Center, Des Moines, Iowa
- Community Medical Center, Scranton, Pennsylvania
- Covenant Medical Center, Waterloo, Iowa
- DePaul Health Center, St. Louis, Missouri
- Detroit Medical Center, Warren, Michigan
- DVA – Loma Linda/Jerry L. Pettis Memorial Hospital, Loma Linda, California
- DVA – Madison, Madison, Wisconsin
- DVA – Mountain Home/James H. Quillen, Johnson City, Tennessee
- DVA – North Chicago, North Chicago, Illinois
- DVA – Phoenix/Carl T Hayden Medical Center, Phoenix, Arizona
- DVA – South Arizona Healthcare System, Tucson, Arizona
- Hennepin County Medical Center, Minneapolis, Minnesota
- Intermountain Medical Center – Salt Lake, Salt Lake City, Utah
- Regions Hospital, St. Paul, Minnesota
- Saint John Hospital and Medical Center, Harrison Township, Michigan
- Saint John Macomb - Oakland Hospital, Warren, Michigan
- St. Vincent Charity Hospital, Cleveland, Ohio
- Surgery Hospital of Oklahoma/CCF, Oklahoma City, Oklahoma
- University Hospital – UMDNJ, Newark, New Jersey
- University of Florida and Shands Jacksonville Medical Center, Jacksonville, Florida
- The Western Pennsylvania Hospital, Pittsburgh, Pennsylvania
- Yale/VA – Podiatric Residency Program, West Haven, Connecticut

**Program Outcomes**

To review the college’s outcome statistics (e.g. board exam pass rates, graduation rates, residency/internship match rates, etc.) and how they compare to national averages, please visit the program’s outcomes [webpage](#).
Graduation Requirements

The University awards the professional degree of Doctor of Podiatric Medicine (D.P.M.) upon recommendation of the faculty. The Academic Progress Committee reports annually to the college faculty the names of students who have met requirements for the doctoral degree. To graduate, a student must:

1. Show professional promise in the judgment of the faculty and received the faculty’s recommendation for graduation.
2. Pass all required systems, courses, rotations and examinations.
3. Take and pass Part I and taken both Part II clinical knowledge and clinical skills exams administered by the American Podiatric Medical Licensing Examiners.
4. Maintain a grade point average (GPA) of at least a 2.0.
5. Be of good moral character and emotional stability.
6. Have attained the age of 21 years.
7. Be approved for graduation by the Board of Trustees of the University as recommended by the CPMS faculty, following recommendation by the CPMS Academic Progress Committee. Non-academic as well as academic performance is evaluated and considered for graduation.
8. Satisfactorily discharge all financial obligations to the University.
9. Complete all graduation requirements, including the graduation clearance process.
10. Attend graduation ceremony at which time the degree is conferred. Students graduating at midterm may be granted an exception to this requirement.

Licensure

Podiatric physicians are required to be licensed in the states in which they practice. Each state has its own requirements for granting licensure and its own licensing board. Generally, a license can be obtained by a state board-administered examination, and/or by acceptance of the certificate issued by the National Board of Podiatric Medical Examiners, or by reciprocity from another state.

At least 39 states, including Iowa, now require completion of an approved one-year postdoctoral residency or community preceptorship to be eligible for licensure. The examination given by the National Board of Podiatric Medical Examiners is divided into two written parts. Part I is given at the end of the second year and Part II at the end of the fourth year. The college requires students to take the National Board Examination.

Currently, 43 states, the federal government and three Canadian provinces use results of the board examination as part of their requirements for licensure.

College of Health Sciences

The College of Health Sciences has been a dynamic part of Des Moines University since its inception in 1981. Continuing to respond to the changing landscape of medicine has allowed the college to add programs that meet the needs of the students, the health care system, and its patients. The college offers five degree programs: Doctor of Physical Therapy (D.P.T.), Post-Professional Doctor of Physical Therapy (D.P.T.), Master of Science in Physician Assistant Studies (M.S.), Master of Health Care Administration (M.H.A) and Master of Public Health (M.P.H).

The programs are designed for students who want to make the most out of their education. Classes and labs give students practical, hands-on learning experiences that they can put to use right away. By being part of a medical and health professions university, the College of Health Sciences gives students access to a wide range of future health care providers. That interaction better prepares them for practice or work in today’s health care environment.

The college offers a wide variety of online and classroom options to fit today’s working professional.

Mission

To advance the health and well-being of society through the development of exemplary health care professionals in a learning-centered environment.
Core Values

- Health promotion
- Life-long learning
- The transfer of evidence-based research into practice

Master of Science in Physician Assistant Studies

The American Academy of Physician Assistants’ description states physician assistants (PAs) are medical professionals licensed to practice medicine with physician supervision. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive health care, assist in surgery and write prescriptions.

While working as dependent practitioners, physician assistants exercise autonomy in medical decision making and provide a broad range of diagnostic and therapeutic services. A PA’s practice may also include education, research and administrative services. PAs are trained using the medical model similar to that of their physician colleagues. This broad training allows them the flexibility to change specialties without requiring further education. Physician assistants are life-long learners who are required to attain continuing medical education in order to incorporate the latest advances in medicine into their practices.

Des Moines University believes there is a need and a place on the primary health care team for mid-level providers. The utilization of physician assistants for more than 40 years has demonstrated that PAs provide high-quality, cost-effective medical care to patients. Through the availability of PAs, physicians have been able to concentrate on patients with more complex medical problems.

Mission

To develop highly competent and compassionate physician assistants who are committed to four core values: prevention of disease, maintenance of health, patient education and treatment of disease.

Objectives

The program provides students with the skills necessary to function effectively as health care providers. Program emphasis is on preventive health care, whereby students are educated to consider the major problems of the patient and recognize the effects of those problems on other systems.

The program prepares students to:

- Obtain thorough medical histories
- Perform comprehensive physical examinations
- Order and evaluate diagnostic tests
- Formulate diagnoses
- Recommend, prescribe and perform routine therapeutic procedures
- Assist in a hospital setting
- Assist in the delivery of services in outpatient settings
- Participate in the evaluation and treatment of patients in life-threatening situations
- Instruct and counsel patients in matters related to their physical and mental health
- Become a member of the community health care team

Program Requirements

As a candidate for admission to the physician assistant program, you must hold a bachelor’s degree from a regionally accredited institution within the United States. Applicants must submit entrance exam (e.g., GRE) scores during the application process. A minimum cumulative GPA of 2.8 or higher is required to be considered for admission. A grade of at least “C” in the following courses is required for admission:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Requirements</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>A semester each of human anatomy, physiology, microbiology and genetics. Labs are required, when available, for all biology courses. Exercise science and PE courses do not count toward biology prerequisites.</td>
<td>16</td>
</tr>
<tr>
<td>Chemistry</td>
<td>A semester each of inorganic chemistry, organic chemistry and biochemistry. Labs are required, when available, for all chemistry courses.</td>
<td>16</td>
</tr>
</tbody>
</table>
Including one course of English composition and one course of speech.

Psychology
Including one course of abnormal psychology.

Statistics or Biostatistics
Medical Terminology

6 semester hours
9 semester hours
1 course
1 course

Applicants must also have completed at least 750 hours of direct patient-care experience as an employee or volunteer in a medical office, hospital, or extended-care facility. Shadowing a physician assistant is required. Your experiences may be combined, but all acceptable clinical experiences must involve hands-on care of patients. Application to the PA program prior to completing the patient-care experience hours is allowed; however, a plan for completion of the hours should be included within the application.

Additional information can be found on the PA Program Admissions Requirements website.

Program Application Process
Des Moines University participates in the web-based Central Application Service for Physician Assistants (CASPA) offered through the Association of Physician Assistant Programs, which handles online applications. Detailed information regarding the process can be found on the PA Program Admissions website.

Select candidates will be invited to campus for an interview. Applicants will receive a response to their application after the interview process.

Technical Standards for Admission, Academic Promotion and Graduation

A candidate for the Master of Science in Physician Assistant Studies degree must have abilities and skills in eight areas: observation; communication; motor; sensory; strength and mobility; visual integration; intellectual, conceptual, integrative and quantitative; and behavioral and social. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

Curriculum Overview and Outline

The Physician Assistant Program is 25 months in length. The first year is devoted to classroom and laboratory instruction. The second year is devoted to clinical experience with the final month allowing for final examinations, presentation of master’s projects and curriculum finalization. The academic calendar includes no extended vacation periods, but does provide short breaks in the fall, winter and spring of the first year and one to two weeks during the second year.

Year 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>MSPA 1340</td>
<td>Program to Practice I</td>
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<tr>
<td>MSPA 1360</td>
<td>Anatomy – Clinically-Oriented</td>
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</tr>
<tr>
<td>MSPA 1361</td>
<td>Physiology</td>
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<tr>
<td>MSPA 1362</td>
<td>Flex Care Communication Training</td>
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<tr>
<td>MSPA 1363A</td>
<td>Pathology</td>
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<td>MSPA 1363B</td>
<td>Pathology</td>
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<tr>
<td>MSPA 1363C</td>
<td>Pathology</td>
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<tr>
<td>MSPA 1364</td>
<td>Nutrition</td>
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<tr>
<td>MSPA 1371</td>
<td>Medical Pharmacology</td>
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<tr>
<td>MSPA 1372</td>
<td>Clinical Preventive Laboratory Medicine (CPLM) I</td>
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<tr>
<td>MSPA 1375</td>
<td>Immunology/Microbiology</td>
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<td>MSPA 1376A</td>
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<td>Clinical Skills III</td>
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<td>MSPA 1377</td>
<td>Clinical Preventive Laboratory Medicine (CPLM) II</td>
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<tr>
<td>MSPA 1378</td>
<td>Medical Genetics</td>
<td>1.0</td>
</tr>
<tr>
<td>MSPA 1381</td>
<td>Introduction to the Health Care Delivery</td>
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</tr>
</tbody>
</table>
Systems, 2.0 credit hours
MSPA 1382, Introduction to Ethics, 1.5 credit hours
MSPA 1384A, Physical Diagnosis I, 1.5 credit hours
MSPA 1384B, Physical Diagnosis II, 1.0 credit hour
MSPA 1389A, Clinical Patient Assessment I, 1.0 credit hour
MSPA 1389B, Clinical Patient Assessment II, 1.5 credit hours
MSPA 1393A, PA Professional Issues I, 0.5 credit hour
MSPA 1393B, PA Professional Issues II, 0.5 credit hour
MSPA 1394, Clinical Preventive Laboratory Medicine (CPLM) III, 10.5 credit hours
MSPA 1395, Research and Epidemiology, 1.0 credit hour
MSPA 1398, Clinical Preventive Laboratory Medicine (CPLM) IV, 6.5 credit hours

**Year 2**

PA 2302, Psychiatry Rotation, 4.0 credit hours
PA 2303, Emergency Medicine Rotation, 4.0 credit hours
PA 2309, Elective Rotation, 12.0 credit hours
PA 2335, Surgery Rotation, 4.0 credit hours
PA 2336, Internal Medicine Rotation, 12.0 credit hours
PA 2337, Family Medicine Rotation, 12.0 credit hours
PA 2340A, Program to Practice, 1.0 credit hour
PA 2340B, Program to Practice, 1.0 credit hour
PA 2340C, Program to Practice, 1.0 credit hour

**Didactic Curriculum Overview**
**Clinical Curriculum Overview**
**Curriculum Sequence**

**Course Descriptions**

**MSPA 1340 Program to Practice I:** This Spring semester course is the prerequisite for the PA student’s preparation of their master’s project. During this course the student completes the required online modules offered by the Collaborative Institutional Training Initiative program on human subject research, responsible conduct of research, and health privacy for researchers. A brief review of APA formatting guidelines and the Turnitin™ software is also provided during this course. (0.5 credit hour).

*Prerequisites: MSPA 1382, MSPA 1394, MSPA 1395*

**MSPA 1360 Anatomy – Clinically-Oriented:** An integrated anatomical approach to the study of human body structure. Lectures systematically take the student from the microscopic level through the formation of organ systems, with emphasis on the interdependence of these systems. Functional concepts and internal structure are related to surface anatomy as a basis for performing a physical examination. Also included in this course is anatomic radiography, which emphasizes normal radiological structures and prepares students for later clinical lectures that emphasize abnormal radiographs during the Clinical Preventive Laboratory Medicine series. (6.5 credit hours)

**MSPA 1361 Physiology:** This clinically oriented course provides instruction on the overall physiology of the human body. Normal physiological states, as well as changes that occur in disease, infection, and trauma will be discussed. Students will be able to use this information to more effectively diagnose and treat their patients, as well as provide students with information that they may use to educate their patients regarding the disease process. (6.0 credit hours)

**MSPA 1362 Flex Care Communication Training:** This course is designed to help students understand and value different approaches to communication and through this process, unlock qualities in themselves and others which will allow them to work more effectively and creatively together. Students will be provided a framework that will facilitate their understanding of other people, how they can gain perspective and learn how they can flex their communication style to interact more effectively. This training includes an opportunity for them to complete the Myers – Briggs Type Indicator (MBTI). (1.0 credit hour)

**MSPA 1363A Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (0.5 credit hour)
**MSPA 1363B Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (0.0 credit hours)

**MSPA 1363C Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (2.0 credit hours)

**MSPA 1364 Nutrition:** Nutrition plays a role in nearly every health condition. This course is an introduction to clinical nutrition and covers the metabolism of lipids, carbohydrates, and proteins. Nutritional assessment and clinical topics such as obesity, pregnancy, vitamins and supplements are discussed. (1.0 credit hour). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1371 Medical Pharmacology:** Modern medicine relies on pharmacotherapy and this course focuses on providing the students a solid foundation in the basic concepts and scientific principles of clinical pharmacologic decision making. For each of the major classes of medication, the students will be expected to know the drug's mechanism of action, clinical uses, adverse effects and pertinent special considerations. Mastery of this course is paramount to the students' understanding of disease management throughout the remainder of the didactic year. (5.5 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1372 Clinical Preventive Laboratory Medicine (CPLM) I:** This is the first course in the four-part CPLM series covering the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on Behavioral Health, Orthopedic and Rheumatologic conditions, Dermatologic conditions, and Infectious Diseases. (7.0 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1375 Immunology/Microbiology:** This course is an overview of the human immune system and the extrinsic pathogens that contribute to morbidity and mortality. Topics specifically covered through lecture and lab sessions include bacteria, viruses, fungi, and parasites. There is a clinically oriented emphasis on the etiology of infectious disease, epidemiology, clinical presentation, and diagnosis. The laboratory exercises focus on techniques performed in modern clinical practice. (2.5 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1376A Clinical Skills I:** This is the first course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today's world. This course will provide instruction and interactive labs in Basic Cardiac Life Support (BLS). (0.0 credit hours)

**MSPA 1376B Clinical Skills II:** This is the second course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today's world. This course consists of the following laboratory sessions: Ophthalmology Lab, Gynecology Lab, Pulmonary Function Testing Lab, and Blood Borne Pathogens Training. (0.5 credit hour). Prerequisites: MSPA 1376A, MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1376C Clinical Skills III:** This is the third course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to
build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today’s world. This course consists of the following sessions: Advanced Cardiac Life Support (ACLS), Basic Disaster Life Support™ (BDLS®), National Incident Management System (NIMS) and Incident Command System (ICS), Basic Surgical Medical Skills, Casting and Splinting Lab, Wound Care Class, Pediatric Newborn Lab, Blood Borne Pathogens Training, and Child and Dependent Adult Abuse Reporting. (3.0 credit hours).

**MSPA 1377 Clinical Preventive Laboratory Medicine (CPLM) II:** This is the second course in the CPLM series covering the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to properly order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on Hematology/Oncology, Gastrointestinal Medicine, EKGs, Heart Sounds, Cardiology, and Respiratory Systems. (10.0 credit hours). **Prerequisite:** MSPA 1372

**MSPA 1378 Medical Genetics:** This course is an introduction to the basic concepts of human and medical genetics. Through a series of online modules, students will investigate the basics of DNA and genetic disease, modes of inheritance, meiosis, non-Mendelian inheritance, and concepts of genetic epidemiology. A series of case studies will help the student discover the impact of genetics in clinical practice. Utilizing their family history, the students will develop their own family pedigree. (1.0 credit hour). **Prerequisites:** MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1372, MSPA 1375, MSPA 1376A, MSPA 1384A

**MSPA 1381 Introduction to the Health Care Delivery Systems:** This course is designed to provide a basic level of knowledge in the structure and function of the health care delivery system, medical law, and ethical theories and issues as they apply to the PA and PA/physician team. Issues discussed will include reimbursement, inequality to accessing health care issues, health care policies, and the roles of the different members of the health care professional team. (2.0 credit hours). **Prerequisites:** MSPA 1377, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1378, MSPA 1389A, MSPA 1393A

**MSPA 1382 Introduction to Ethics:** The preparation of a competent medical provider includes not only medical knowledge but also an understanding of professionalism and ethical principles. This course challenges the PA student to analyze, from an ethics perspective, clinical situations such as palliative care, confidentiality, legal issues and other emotionally charged topics. Instruction is provided via lectures, small group discussions and written assignments. (1.5 credit hours). **Prerequisites:** MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

**MSPA 1384A Physical Diagnosis I:** This course is designed to introduce the student to patient history taking and communication skills. Students will begin using medical diagnostic equipment as they develop the skills needed to perform complete and focused physical examinations. Students will examine assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. The pediatric, adult, and geriatric physical examinations will be emphasized. (1.5 credit hours)

**MSPA 1384B Physical Diagnosis II:** This course is a continuation of Physical Diagnosis I. Students will learn the components of the physical examination, recognize abnormal and normal findings, and communicate the information in oral and written formats. The pediatric, adult, and geriatric physical examinations will be emphasized. Simulated patients will be used to enhance history taking and physical examination skills. (1.0 credit hour). **Prerequisites:** MSPA 1384A, MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1375, MSPA 1376A

**MSPA 1389A Clinical Patient Assessment I:** This course will build upon the skills from the Physical Diagnosis I and II courses to refine the physician assistant student’s ability to efficiently gather a pertinent and relevant medical history as well as introduce the student to the concept of clinical reasoning in the systems of respiratory, cardiology, hematology, orthopedics, rheumatology and infectious diseases. This information is used to conduct the physical examination and order appropriate diagnostic evaluations thus enabling the student to develop the diagnosis and treatment plan for the patient. (1.0 credit hour). **Prerequisites:** MSPA 1384B, MSPA 1375, MSPA 1372

**MSPA 1389B Clinical Patient Assessment II:** This course will build upon the skills from the Physical Diagnosis I and II courses to refine the physician assistant student’s ability
to efficiently gather a pertinent and relevant medical history as well as introduce the student to the concept of clinical reasoning in the systems of OB/gynecology, cardiology, endocrinology, renal, trauma and pediatrics. This information is used to conduct the physical examination and order appropriate diagnostic evaluations thus enabling the student to develop the diagnosis and treatment plan for the patient. (1.5 credit hours).

**Prerequisites:** MSPA 1389A, MSPA 1364, MSPA 1371, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1393A

**MSPA 1393A PA Professional Issues I:** This course is designed to introduce the student to the PA profession: its history, organizations, current trends in the profession, and the physician/PA team. This course explores cultural issues and patient care, quality assurance, and risk management. (0.5 credit hour). **Prerequisites:** MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

**MSPA 1393B PA Professional Issues II:** This course is designed to introduce the student to the PA profession: organizations, current trends in the profession, the physician/PA team, professionalism, patient consent, HIPAA, credentialing, and licensure. This course explores cultural issues and patient care, quality assurance, and risk management. (0.5 credit hour). **Prerequisites:** MSPA 1393A, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A

**MSPA 1394 Clinical Preventive Laboratory Medicine (CPLM) III:** This is the third course in the CPLM series covering the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on women’s health, endocrine and neurologic conditions, ENT, renal diseases, and ophthalmology. (10.5 credit hours). **Prerequisites:** MSPA 1377, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1378, MSPA 1389A, MSPA 1393A

**MSPA 1395 Research and Epidemiology:** The first portion of this course is an introduction to research methodology and the critical evaluation of evidence-based publications. The students will learn the basics of research design, biostatistics, and how to conduct a literature review. It is during this course the PA students will start considering topics for their master’s projects. The second component of this course prepares the students for practice by teaching epidemiologic principles as a cornerstone of clinical reasoning and diagnosis. (1.0 credit hour). **Prerequisites:** MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

**MSPA 1398 Clinical Preventive Laboratory Medicine (CPLM) IV:** This is the final course in the CPLM series covering the etiology, epidemiology, presentation, evaluation and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on the pediatrics, emergency medicine and geriatrics. (6.5 credit hours). **Prerequisites:** MSPA 1394, MSPA 1382, MSPA 1395

**PA 2302 Psychiatry Rotation:** Four weeks focusing on the evaluation, intervention, and management of the psychiatric patient. (4.0 credit hours)

**PA 2303 Emergency Medicine Rotation:** Four weeks covering initial assessment and stabilization of patients in the emergency setting. (4.0 credit hours)

**PA 2309 Elective Rotation:** Up to 12 weeks of electives, which may include cardiovascular surgery, infectious disease, tropical medicine, and many other areas of specialization. Experiences will be provided in geriatrics, pediatrics, and women’s health. (12.0 credit hours)

**PA 2335 Surgery Rotation:** Four weeks of evaluation and management of common surgical problems, including preoperative workup, intraoperative care, and postoperative follow-up. (4.0 credit hours)

**PA 2336 Internal Medicine Rotation:** 12 weeks with emphasis on the clinic evaluation of common medical problems in adult health care, the role of the hospital in the delivery of integrated primary care services, and the specific needs of rural communities and women. (12.0 credit hours)

**PA 2337 Family Medicine Rotation:** 12 weeks of clinical experience in family medicine. Concepts and techniques studied in the preclinical year are applied. Emphasizes development of the knowledge and skills needed to assess and manage common medical problems. (12.0 credit hours)
PA 2340A Program to Practice: This summer semester course is the first of three courses created to help guide the second-year PA student through the process of creating a master’s project. The initial research will be conducted during this time period and written correspondence with the student’s advisor will take place, outlining the progress to date. (1.0 credit hours).
Prerequisites: MSPA 1340, MSPA 1376C, MSPA 1381, MSPA 1389B, MSPA 1393B, MSPA 1398

PA 2340B Program to Practice: This fall semester course is a continuation of PA 2340A. The second-year PA student will gather more research data and continue to regularly share progress with his/her advisor. A preliminary draft of the master’s project should be completed during this course. (1.0 credit hours).
Prerequisite: PA 2340A

PA 2340C Program to Practice: It is during this spring semester course the second-year PA student completes his/her master’s project, delivers an oral presentation, participates in the capstone SIM and SPAL assessments, and prepares for the national certification exam by sitting for individual comprehensive examinations. Students also meet with their advisors for summative evaluations of their performance during this time. (1.0 credit hour).
Prerequisite: PA 2340B

Elective Courses

INST 2003 Cranial Nerves – A Case-Based Approach: This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)

INST 2020 Beginning Medical Spanish: Introduces the student to basic Spanish vocabulary, Spanish medical vocabulary, comprehension and sentence structure. Intended for students who have little or no proficiency in conversational Spanish. (1.0 credit hour)

INST 2021 Dying in America: Palliative and End-of-Life Care: This elective course is based upon the Education for Physicians on End-of-Life Care (EPEC) curriculum with an emphasis on selected components of the curriculum and incorporation of the humanities and the arts into the elective. This curriculum was developed for the medical profession in recognition that end-of-life care (ELC) has been neglected in the past. The EPEC curriculum seeks to provide health care professionals with skills and tools to assist them in providing competent and compassionate ELC. Competence in providing excellent ELC can ameliorate, but not eliminate, the fear, negative images and avoidance responses from individuals, including health care professionals, when confronted with their own death or the death of those who seek their care. This is especially true for physicians who have traditionally seen death as a failure of care. (1.0 credit hour)

INST 2023 Intermediate Medical Spanish: The purpose of this course is to teach communication with Spanish-speaking patients in order to form strong clinician-patient rapport. Students will learn a standardized universal Spanish that also includes many words and expressions that take on different meanings in different countries and regions. Latino patients will come from a variety of countries, education levels, socio-economic backgrounds and origins (whether urban or rural areas). This class will address some of those differences. (1.0 credit hour)

INST 2024 Animal-Assisted Therapy and the Use of Service Animals: The goal of this course is to acquaint future health care professionals with the wide variety of ways animals are used in animal-assisted activities, animal-assisted therapy, and as service animals in both physical and psychological support roles. The students will, through outside reading, class demonstrations, discussion, etc., obtain a deeper understanding of the value and ethics of using an animal as part of therapy. The course will meet for six or seven two-hour on-campus sessions and make an off-campus trip to a hippotherapy center. (1.0 credit hour)

INST 2026 Problem-Based Anatomy: The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, Problem-Based Anatomy. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the
field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour)

**INST 2030 Reproductive Health Choices:** Offered in partnership with Planned Parenthood of the Heartland as education and training for possible internships. Training will cover reproductive health and available reproduction options. Trainers from Planned Parenthood, under the supervision of the coordinator, will present the course material. (1.0 credit hour)

**INST 2031 Human Development:** An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

**INST 2032 Healthy Food Preparation: Nutritional Survival 101:** This course is designed to introduce the student to some basic methods for preparing meals that incorporate ingredients associated with health risk reduction. The emphasis will be on preparing healthy, tasty and economical dishes as simply as possible, utilizing regional cuisines from around the world. All dishes prepared will be eaten by participants. Students will be encouraged to share and demonstrate any cooking techniques they have acquired. (0.5 credit hour)

**INST 2036A Rural Medicine Educational Pathway:** This course, offered in the fall, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)

**INST 2036B Rural Medicine Educational Pathway:** This course, offered in the spring, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)  
Prerequisite: INST 2036A

**INST 2065 Coronary Circulation:** Understanding the burden of coronary arterial disease requires contextual knowledge of the anatomy and physiology of the coronary circulation. Anatomically, this course will cover general concepts of blood vessel formation and remodeling, development of coronary vessels, the anatomy of the coronary vessels along with anomalies, and collateral circulation. Physiologically, methods of measuring coronary blood flow and its regulation and distribution will be considered. Lastly, anatomic and physiologic adaptations related to aging, exercise, and cardiac hypertrophy will be considered. (1.0 credit hour)  
Prerequisites: ANAT 1101A, ANAT 1101B, PHYS 1116

**INST 2070 Literature and Narrative Medicine:** This course invites students to grow in their understanding of illness and healing through a survey of literature and narrative medicine. Utilizing the lens of patient, family care giver, physician healer and others who care for the ill and dying among us, students are encouraged to be open to increased self-awareness and to develop both compassion and resilience for their life of service in medicine. The eight two-hour sessions will be utilized to pursue the goal of increased self-awareness and broad-based cultural humility as it relates to illness and suffering and health and healing. (1.0 credit hour)

**INST 2071 Community Health Immersion Project (CHIP):** Through community experiences, this course examines cultural competencies and the barriers faced by medically underserved communities in the Des Moines area. (1.0 credit hour)

**INST 2072 Tools for Teaching:** This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods, execution of adult learning principles, and assessing student learning outcomes. (1.0 credit hour)

**INST 2073A Global Health Learning Collaborative:** The Global Health Learning Collaborative (GHLC) is an elective aimed at introducing students to the key concepts and principles of global health. Special focus will be given to socioeconomic, political and cultural forces that converge to shape health care systems globally. The global burden of disease and challenges for practicing health care professionals will also be addressed in order to better prepare students for work abroad. The goal of this course
is to encourage students to critically assess global health efforts & develop innovative and pragmatic solutions to combat the health challenges seen worldwide. In this manner, GHLC hopes to inspire the next generation of global citizens from Des Moines University. (1.0 credit hour)

**INST 2073B Global Health Learning Collaborative:** A selected group of participants will have the opportunity to apply the theories learned in the classroom to action on the ground during a week-long medical service trip. (1.0 credit hour) Prerequisite: INST 2073A

**INST 2076 From Stage to Clinic: Improv Skills in a Health Care Setting:** Through the experiential study of improv theater, students will use a fun, innovative and rejuvenating medium to develop their skill set as providers. Improv challenges students to break out of their shells and be humbly fearless. As students are placed in high-stress situations throughout their clinical years and careers, it is important that they have the confidence to speak to superiors and contribute to teams. Similar to SIM lab, students will have the opportunity to make mistakes and try new techniques in a safe and low-risk environment. (0.5 credit hour)

**INST 2077 Evolutionary Medicine and Health:** This elective is designed to introduce students to evolutionary theory and the evolutionary mechanisms underlying the origins of various human diseases and disorders and will also examine the benefits and costs of some of the suggested approaches toward treatment. (1.0 credit hour)

**INST 2078A Practical Foundations for Medical Education:** This course will provide students with the opportunity to explore the fundamentals of education including learning theory, assessment, lesson design, and self-evaluation through group discussion and reflective writing. Practice developing and implementing your own engaging lessons utilizing active learning approaches. Understand and be able to justify instructional choices. Prepare yourself for a career in academia by developing a robust teaching philosophy statement and the skills and knowledge necessary to continually improve your teaching practice. (1.5 credit hours)

**INST 2078B Applications of Practical Foundations for Medical Education:** This course will provide students with the opportunity to apply the concepts they learned in the pre-requisite course, Practical Foundations for Medical Education (INST 2078A). Students will complete lesson objective writing, design and implement educational experiences, and create student learning assessment tools. Students will develop and direct tutorial sessions for their peers in a manner congruent with their academic program's curriculum. (1.0 credit hours) Prerequisite: INST 2078A

**Program Outcomes**
To review the program's outcome statistics (e.g., board exam pass rates, graduation rates, etc.) and how they compare to national averages, please visit the program’s outcomes webpage.

**Graduation Requirements**
The University awards the master's degree of Physician Assistant Studies (M.S.P.A.) upon recommendation of the faculty. The Academic Progress Committee reports annually to the program faculty the names of students who have met requirements for the master's degree. To graduate, a student must:

1. Show professional promise in the judgment of the faculty and receive the faculty’s recommendation for graduation.
2. Satisfactory completion of all prescribed courses, systems, rotations and examinations. This includes successful completion of non-graded “for credit” laboratory requirements and the comprehensive examinations at the end of year two.
3. Maintain a cumulative GPA of 2.0 or higher based on a 4.0 scale.
4. Be of good moral character and emotionally stable.
5. Satisfactorily discharge all financial obligations to the University.
6. Be recommended for graduation by the PA Academic Progress Committee and be approved by the PA faculty, Dean of the College of Health Sciences, and the Board of Trustees.
7. Attend graduation ceremony. Students graduating at midterm may be granted an exception to this requirement as may those who petition for a waiver of attendance from the Dean.

**National Certification**
Students who satisfactorily complete the requirements for graduation from the Physician Assistant Program of the
College of Health Sciences are eligible to take the Physician Assistant National Certifying Examination (PANCE) given by the National Commission on Certification of Physician Assistants. Those earning a passing score on this examination are granted certification, which is one of the requirements to practice as a physician assistant in all states and the District of Columbia. Certification is indicated by the designation PA-C behind a physician assistant’s name.

The first-time pass rate for DMU students taking the PANCE is 96% over the last five years, compared to 93% for students nationally.

**Master of Public Health**

The Master of Public Health (M.P.H.) Program provides a generalist practice-based degree in the sciences of public health. Students will develop professional competencies by enhancing their knowledge, skills and understanding of the five core areas of public health. Courses provide an opportunity for students to obtain and further develop public health professional skills needed to improve the health of populations.

The program requires the completion of 45.0 credit hours of course work – 39.0 credit hours of core courses and 6.0 hours of elective courses. The core courses provide a general foundation of knowledge that is supplemented with electives reflecting pertinent current events in public health. Students have five years from admission to complete the MPH Program.

**Mission**

To provide an excellent, competency-based, interdisciplinary education that prepares public health leaders who preserve and promote health in our global community.

**Vision**

To improve health for all through our commitment to innovative education, scholarship, service, and advancement of public health.

**Values**

- Excellence: Demonstrate outstanding performance in all teaching and learning, research, and service activities.
- Integrity: Demonstrate the highest degree of moral and ethical behavior.
- Diversity: Value the unique and various backgrounds, experiences, and beliefs of our faculty, staff, students, and communities we serve.
- Social justice: A commitment to improving health and reducing health disparities.
- Community: A commitment to community partnerships that promote student learning, professional growth, and enhanced public health practice.

**Goals**

- Educational goal: Use innovative and rigorous teaching and learning strategies to prepare a diverse student body with the competencies necessary to be leaders in public health
- Service goal: Serve communities locally and globally through workforce development activities, community engagement, service, and leadership.
- Research goal: Advance public health knowledge through innovative, interdisciplinary research.
- Administrative goal: Operate and enhance a CEPH-accredited MPH program that supports faculty, staff, and student excellence and upholds the mission of Des Moines University.

**Objectives**

**Educational Objectives**

1. Each of the eight public health competency domains will be addressed across the five core courses [Basic Statistics and Research, Social and Behavioral Sciences, Occupational and Environmental Health, Public Health Administration and Management, Epidemiology].
2. 100% of graduates will attain 70% or higher in all eight MPH competency domains.
3. 90% of students who take the CPH exam will pass.
4. 90% of all MPH courses will receive a student course evaluation with a mean value of 4.0 or higher (1 = poor, 5 = excellent).
5. 80% of all MPH graduates will report “yes” the program helped them develop entry-level competency in public health.
6. 80% of all alumni will rate themselves as “exemplary” or “proficient” on the public health competency self-assessment.
7. 80% of employers surveyed will report MPH graduates as “exemplary” or “proficient” in public health practice.
8. 50% of MPH courses will include content and assessment linked to the cultural competency domain.
9. Each year, at least two MPH program faculty will participate in at least one interdisciplinary education offering of Des Moines University students.
10. Instructor peer-reviews to support continuous quality improvement will occur every other year for all faculty (core and secondary).
11. Each year, the MPH program will offer at least two global health electives to support the global health initiatives of Des Moines University.

Service Objectives
1. 75% of MPH core faculty will serve on at least one external service committee or project per year.
2. 75% of MPH core faculty will deliver health education/promotion presentations to external (non DMU-MPH) audiences each year.
3. 100% of student internships and capstones will result in students sharing core public health content with external stakeholders.
4. The MPH student club will participate in at least one service-learning experience per year.

Research Objectives
1. 50% of core faculty will engage in research collaborations with external academic partners each year.
2. 50% of core faculty will engage in research collaborations with community partners each year.
3. 50% of core faculty will publish at least one peer-reviewed article each year.
4. 15% of MPH graduates will have participated in public health research through extracurricular activities or through course work.
5. 100% of graduates will complete the “Responsible Conduct of Research” training.
6. 80% of faculty research projects will involve student collaborators.

Administrative Objectives
1. 100% of core faculty will attend at least one professional development activity in their field of expertise per year.
2. The program, in collaboration with partners across the university, will provide at least one professional development activity per year to all faculty.
3. Annually review a program-wide curriculum map that is the basis for curricular modifications and curricular improvement initiatives.
4. Support the diversity initiatives of Des Moines University by awarding at least two diversity scholarship awards per year.
5. Convene an advisory committee at least three times per year as a mechanism for stakeholder and community input into the program’s operations.

Program Requirements
To be eligible to apply for admission to the Master of Public Health program at DMU, applicants must have a bachelor’s degree from a regionally accredited institution. Typically, applicants must submit entrance exam (e.g., GRE) scores during the application process; scores no older than five years are preferred.

Additional information regarding admission to the program can be found on the MPH Program Admissions Requirements website.

Program Application Process
Applicants should apply online and submit all required materials to complete their file. All completed applications will be reviewed following each posted deadline, and new students are admitted each fall, spring and summer.

Detailed information regarding the process can be found on the MPH Program Admissions website.

Technical Standards for Admission, Academic Promotion and Graduation
A candidate for the Master of Public Health degree must have abilities and skills in five areas: sensory; motor; intellectual – conceptual, integrative, and quantitative abilities; behavioral; and social. While the University is committed to complying with the terms of the Americans
with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

**Technical Standards for Admission, Academic Promotion and Graduation**

**Curriculum Overview and Outline**
The program’s curriculum is based on a practical, problem-based approach. Expert full-time and part-time faculty from the health care community provide a blend of theory and experience. The program totals 45.0 credit hours – 39.0 credit hours of required courses and 6.0 credit hours of elective courses.

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>MPH 625</td>
<td>Health Care Financial Management I</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 620</td>
<td>Introduction to Graduate School and the MPH Program</td>
<td>1.0</td>
</tr>
<tr>
<td>MPH 621</td>
<td>Overview of the U.S. Health Care System</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 645</td>
<td>Community Health Program Planning and Evaluation</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 650</td>
<td>Basic Statistics and Research</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 651</td>
<td>Occupational and Environmental Health</td>
<td>3.0</td>
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<tr>
<td>MPH 652</td>
<td>Public Health Law, Ethics and Policy</td>
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<tr>
<td>MPH 653</td>
<td>Public Health Administration and Management</td>
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<tr>
<td>MPH 654</td>
<td>Social and Behavioral Sciences</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 655</td>
<td>Epidemiology</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 657</td>
<td>Survey of Human Health and Disease</td>
<td>3.0</td>
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<tr>
<td>MPH 658</td>
<td>Public Health Internship</td>
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### Elective Courses

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<tr>
<td>MPH 660</td>
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<tr>
<td>MPH 671</td>
<td>Community Research Methods</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 711</td>
<td>Grant Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 756</td>
<td>Current Topics in Public Health</td>
<td>1.0</td>
</tr>
<tr>
<td>MPH 766</td>
<td>Geographic Information Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>MPH 768</td>
<td>Policy and Practice: Emergency Preparedness</td>
<td>3.0</td>
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<tr>
<td>MPH 774</td>
<td>Infectious Diseases of Humans and Animals</td>
<td>3.0</td>
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<tr>
<td>MPH 783</td>
<td>Foundations of Global Health</td>
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<tr>
<td>MPH 785</td>
<td>Global Health Policy, Practice and Partnerships</td>
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<tr>
<td>MPH 786</td>
<td>Health Education/Health Promotion: Techniques in Technology</td>
<td>3.0</td>
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<tr>
<td>MPH 897-899</td>
<td>Independent Study</td>
<td>1.0-3.0</td>
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</table>

**Course Descriptions**

**MHA 625 Health Care Financial Management I:** This course provides a basic understanding of health services financial management with emphasis on the not-for-profit entity. We will begin with elementary accounting concepts and then focus on discounted cash flow analysis, risk, financial statements, capital investments, debt and equity financing, capital budgeting and health care reimbursement models. The course blends accounting and finance concepts to enhance the health care manager's decision-making skills using accounting and finance theories, principles, concepts and techniques most important to managers in the health care industry. (3.0 credit hours). *Prerequisites: MPH 620, MPH 621*

**MPH 620 Introduction to Graduate School and the MPH Program:** This course, required for graduate students seeking a Master in Public Health degree, provides a foundation for critical analysis of current public health issues. It facilitates discussion of contemporary issues and challenges of public health policy and practice. Key topics include history and core functions of public health systems.
health; balancing individual and societal rights; public health ethics; social determinants of health; health disparities; cultural competence, socio-ecological approaches to promote health; public health concerns in urban communities; and current public health practice. (1.0 credit hour)

**MPH 621 Overview of the U.S. Health Care System:** This course is a comprehensive analysis of the health care delivery system including the interface with the public health system and public health services. Components studied include: members of the health care team and their roles; the solo practitioner; group practice; multi-specialty; HMOs; remote-site hospital clinics; tax-supported ambulatory health care facilities; home health care; mobile health care; mental health care; other inpatient and domiciliary care facilities; long-term care facilities; local, state and federal direct care and regulatory agencies; nonprofit organization promoting health and/or providing services; health planning and coordinating bodies at various levels; accrediting agencies for health care facilities and personnel; organizations representing health care personnel and facilities; and organizations representing health care consumers; and, health care services financing and reimbursement in public and private systems. Formal, informal, financial, and political relationships between and among these components are discussed. Additional topics include: problems and potential solutions related to health services delivery and health care reform; consideration of differences between the U.S. system and the systems in other regions of the world; and, trends in issues, policy, financing, regulation, and technology in U.S. health care. (3.0 credit hours)

**MPH 645 Community Health Program Planning and Evaluation:** This course will provide an overview of community assessment, coalition development, data collection tools, and health improvement planning. Principles of formal program evaluation will include the nature of evaluation, the role of evaluation in the program life cycle, the relationship of statistical processes to specific evaluation designs, sampling, survey development, data collection and analysis, and interpretation of research findings. (3.0 credit hours). **Prerequisites:** MPH 620, MPH 621, MPH 650, MPH 657

**MPH 650 Basic Statistics and Research:** This is an introductory course that exposes the student to the use of statistical techniques for health care data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and introduction to the use of multivariate statistical techniques. Students will learn to apply statistical techniques for decision making and/or research data analysis. (3.0 credit hours)

**MPH 651 Occupational and Environmental Health:** This course is an introduction to occupational and environmental health for the Master of Public Health program students. Through reviewing applicable scientific literature, completing class assignments, and participating in online interactive activities in this course, you will learn that where people live and work has a profound influence on their health and safety. We will explore how historical environmental and occupational events have guided public health programs today. We will look at the impact of these events from a global, national, local, and community-based perspective. We will learn what environmental and workplace conditions provoke hazards, identify which threats pose a risk to health and look at how health is affected. We will assess the impact of social and behavioral influences and explore how disparities affect communities. Additionally, we will look at the legislative, legal, and political systems that guide regulations and public health program interventions, identifying which authorities oversee and regulate specific aspects of environmental and occupational issues. (3.0 credit hours). **Prerequisites:** MPH 620, MPH 621, MPH 650, MPH 657, MPH 655. **Corequisite:** MPH 625

**MPH 652 Public Health Law, Ethics and Policy:** An overview of legal and ethical issues facing individuals, organizations, and constituencies involved in developing public health policy and providing public health services. The course is intended to provide students with a basic working knowledge of how law, ethics, and policy can be applied to real-world public health issues. Components studied include the legal process and resources; ethical issues of concern to public health providers; balancing public health practitioners’ constitutional responsibility to advance the populations’ health/well-being with protection of individual rights — especially during emergency situations; practical issues facing public health practitioners related to liability; informed consent, confidentiality, and medical records; and legal and ethical issues related to access to health care, reproductive health, vaccination policy, injury prevention and responding to
the environment. The class will also explore how public health law tools can be applied in these situations. (3.0 credit hours). Prerequisites: MPH 620, MPH 621

**MPH 653 Public Health Administration and Management:** This course serves to support developing, entry-level competencies in public health administration and management. Topics include leadership, mission and goal definition, health data management, communications in public health, management of public health services, financial management and budgeting, quality improvement, outcomes assessment, strategic planning and marketing, health education, and other emerging topics necessary for the effective delivery of public health services. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657

**MPH 654 Social and Behavioral Sciences:** This course examines the social and behavioral theoretical foundations of public health, specifically in the context of health behavior change, health promotion, and health education. Students will gain an understanding of the prominent social and theories that can be used in a variety of settings by a variety of health professionals. Students will learn about individual level, interpersonal level, and community level theories to be used in program planning and evaluation. (3.0 credit hours). Prerequisites: MPH 620, MPH 650, MPH 657

**MPH 655 Epidemiology:** Introduces students to the principles of epidemiology, including historical overview; descriptive methods and sources of data; diagnostic screening; study designs; analytical tools; measures of association; bias and confounding. Emphasis is placed on the critical evaluation and interpretation of public health research, using examples from the literature. Students develop problem-solving skills and an understanding of evaluation and research. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 650

**MPH 657 Survey of Human Health and Disease:** This course is designed for individuals with very little or no clinical background as it introduces students to the fundamentals of human anatomy and physiology, organ systems, medical terminology and their relation to the mechanisms of acute and chronic diseases. This class will provide an overview of the major theories of disease, with special reference to mechanisms of the significant current acute and chronic public health problems. (3.0 credit hours)

**MPH 658 Public Health Internship:** A planned, supervised, and evaluated practice experience is an essential component of a professional public health degree program. This course provides students the opportunity to further develop skills in public health concepts and demonstrate the application of these concepts through a hands-on experience in a public health setting. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657

**MPH 660 Public Health Capstone:** This course serves as a culminating experience in which students are expected to apply knowledge gained from their graduate education by integrating and demonstrating the program competencies obtained in their program of study. An important consideration in choosing a culminating experience is to find a project that allows the student to apply theory and principles learned in course work to a professional practice situation. This is the way in which faculty evaluate whether students have mastered the program's competencies, as evidenced by integration and demonstration of these competencies in the Capstone (detailed below).

During the capstone, students will work with a public health agency/organization to complete a project of mutual interest for the student and the agency. The purpose of this capstone experience is to facilitate synthesis of content from the MPH curriculum to a problem addressing the health of the community; it is also a turning point for the student from formal education to professional practice.

The student and the preceptor, with guidance from the MPH Capstone coordinator will determine the nature of the project. These individuals will work with and support the student throughout his/her learning experience. (2.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657; Corequisite: MPH 671

**MPH 671 Community Research Methods:** This course will provide students with a comprehensive overview of the methods used in the scientific research of public health. The content of this course includes experimental and non-experimental research designs, sampling, measurement, reliability and validity, data collection procedures and methods, and generalizability of findings. This course provides instruction on basic research methodology to be applied in investigations that target

Elective Courses

MPH 711 Grant Writing: This course will prepare you to develop grant proposals and program level proposals in today's funding environment. The course will provide you with training in the three major elements of grantsmanship: preparation, proposal writing and follow-up. It offers a practical approach to obtaining grant funds from public or private sources at the federal, state and local levels. (3.0 credit hours)

MPH 756 Current Topics in Public Health: This course utilizes the lectures and learning opportunities of professional conferences. The DMU MPH program will offer this course as an organized class around the Iowa Public Health Conference in April. Public health encompasses a wide variety of health activities, and it requires breadth of exposure and knowledge of current trends. Public health associations sponsor conferences meant to provide professionals with reports of current activities, the most recent research information and exposure to opportunities for new public health collaborations. This environment is ideal for students to increase their understanding of public health activities and the key players who make a difference in how public health is delivered. Through this course, students will attend a minimum two-day public health conference and write assignments according to the lectures they've attended. Students will also reflect on how the conference creates opportunity for informal gatherings meant to promote professional relationships. (1.0 credit hour)

MPH 766 Geographic Information Systems: Geographic Information Systems (GIS) are computerized systems designed for the storage, retrieval and analysis of geographically referenced data. GIS maps all sorts of physical, biological, cultural, demographic and economic data. This course uses a unique approach for teaching GIS in health care. It imbeds learning how to use GIS software in the context of carrying out projects for visualizing and analyzing health-related data. The course includes a lecture and computer lab that focuses on a health care issue that uses ArcView GIS from ESRI, Inc. to analyze data or solve a problem. Through assignments and project case studies, students will not only learn how to use the software but will also learn the many distinctive advantages of using GIS for health care policy making and planning. By the end of the course, students will have sufficient background to become savvy users of GIS in health care organizations — building, managing and using GIS maps and health-related data. (3.0 credit hours)

MPH 768 Policy and Practice: Emergency Preparedness: This is an analysis of emergency public health preparedness and response. Preparing for a public health emergency is a part of the larger issues for preparing for and responding adequately to any type of public health disaster. Components studied include government capacity, public health law, public-private partnerships during emergencies, public health tools during emergencies, infectious disease emergencies, terrorism, natural disasters, industrial emergencies and special populations and issues. (3.0 credit hours)

MPH 774 Infectious Diseases of Humans and Animals: This course is an overview of diseases that are shared between humans and animals, otherwise known as zoonoses. Lectures will focus on the intersection of human-animal health, infectious disease epidemiology, routes of infection, signs, control and prevention, emergence of new diseases and the role of public health in managing these issues. Some diseases will be covered in-depth while others will be addressed in overview. Topics include emerging diseases, anthrax, petting zoos, HIV/AIDS, plague, food and milk safety, leptospirosis, influenza and more. The concept of One Health will be a common theme of this course. (3.0 credit hours)

MPH 783 Foundations of Global Health: Public health influences all aspects of the lives of the world’s population and is itself influenced by the interconnectedness of each country’s health status as a result of modern travel and communication modalities. This course examines the foundations of global health through the lens of issues facing developing countries challenged by limited resources. Global health principles, concepts and international goals will be discussed, and the interaction of health, politics, economics and socio-demographic factors will be examined. Students will discuss selected priority global health issues as to causes, individual and societal impact and current and future strategies to mitigate and prevent harmful consequences. (3.0 credit hours)

MPH 785 Global Health Policy, Practice and Partnerships: This course explores the new reality of
globalization which requires public health professionals to view population health through a kaleidoscope of economic, geo-political, technological, social, and cultural connections between individuals and groups of people around the world. These connections intersect through policies, practices and partnerships that ultimately determine the health status of populations. This course explores historical and contemporary forces contributing to the international community’s response to health determinants around the world. Understanding practices, policies, and partnerships is essential to improving living and health conditions in low- and middle-income countries, as well as critically analyzing the role of high-income countries in improving health outcomes globally. Students will synthesize complex knowledge about the roles and interrelationships of local, national, and international entities that address global public health issues. Governmental and non-governmental organizations and structures will be examined. (3.0 credit hours)

**MPH 786 Health Education/Health Promotion: Techniques in Technology:** The effectiveness and efficiency of technology in public communication (such as websites and multimedia) are dependent upon the quality of the strategies and methods used. This course will prepare the public health official with protocol and skills to integrate various technologies in promoting public health awareness. The student is provided with the basics of website design, message design and instructional design and will explore the research and principles of how people learn. Students will be expected to participate in critical thinking activities and in the development of a Technology-Based Health Promotion resource, as well as demonstrate basic understanding of design methods and learning principles. (3.0 credit hours)

**MPH 897-899 Independent Study:** This course is designed for students to independently investigate topics outside the context of a traditional course. Students collaborate with an MPH faculty member to pursue a topic of mutual interest. Independent study projects may involve topics such as global health trips and research projects, or exploring a special topic in more depth than what is covered in the curriculum. Students collaborate with a faculty member to establish measurable learning objectives and a schedule or plan and to establish roles and responsibilities for the student and supervising faculty member. Students must have a minimum 3.0 GPA to enroll and independent study projects must be approved by the Program Director prior to enrollment. (1.0 – 3.0 credit hours)

**Program Outcomes**
To review the program’s outcome statistics (e.g., graduation rates, employer surveys, assessment outcomes, etc.), please visit the program’s outcomes webpage.

**Graduation Requirements**
A student is scheduled for graduation after successful completion of all degree requirements and upon recommendation of the program faculty for graduation. Students must have a grade point average (GPA) of at least 3.0 to be eligible for graduation.

**Master of Health Care Administration**
The Master of Health Care Administration (M.H.A.) Program emphasizes practical knowledge students will use from day one. This real-world focus on management skills, leadership and advocacy will help students advance in today’s complex health care environment. Course content reflects the best research and thinking in the health care industry today, immersing students in a body of knowledge critical to effective health care management.

The program requires completion of 48.0 credit hours of course work. The convenient course schedule allows students to continue working while earning a degree. The majority of the degree can be earned online. Online courses incorporate the use of additional technologies to further connect students with their faculty and peers. Three on-campus Executive Residencies immerse students at the beginning, midpoint and culmination of their program and provide invaluable opportunities to connect with their faculty advisor, build networks among fellow students, faculty, guest speakers and alumni, and enable faculty to support continued growth and development in those competencies that require face-to-face time. Students have seven years from admission to complete the MHA Program.

**Mission**
To develop early-to-mid-career learners into innovative, competent, well rounded leaders prepared to integrate
evidence-based theory into practice within a variety of health care settings through participation in a rigorous, nationally recognized academic experience.

Vision

Over the next decade, our vision is to be a learning community that enhances the learning and development of reflective, innovative and effective health care leaders.

Values

- Integrity: Adhering to high moral principles or professional standards.
- Competence: Having enough knowledge, skill or ability to do something well.
- Communication: Connecting with others to lead productive conversations and achieve desired outcomes.
- Lifelong learning: A promise to improve.

Program Requirements

To be eligible to apply for admission to the Master of Health Care Administration program at DMU, applicants must have a bachelor’s degree from a regionally accredited institution. A cumulative undergraduate GPA of 3.0 is preferred, though all applications will receive a thorough review.

Additional information regarding admission to the program can be found on the MHA Program Admissions Requirements website as well as the MHA Program Admissions Criteria website.

Program Application Process

Applicants should apply online and submit all required materials to complete their file. All completed applications will be reviewed following each posted deadline, and new students are admitted each fall, spring and summer.

Detailed information regarding the process can be found on the MHA Program Admissions website.

Technical Standards for Admission, Academic Promotion and Graduation

A candidate for the Master of Health Care Administration degree must have abilities and skills in five areas: sensory; motor; intellectual – conceptual, integrative, and quantitative abilities; behavioral; and social. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

Curriculum Overview and Outline

The program’s blend of on-campus executive residencies and web-based instruction offers the best of both worlds: face-to-face and technology-enabled education proven to optimize learning outcomes. The program totals 48.0 credit hours. Students are encouraged to register for courses upon completing the online Orientation.

Block I

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tr>
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<td>Health Care Human Relations Management</td>
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<tr>
<td>MHA 621</td>
<td>Overview of the U.S. Health System</td>
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</tr>
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<td>MHA 625</td>
<td>Health Care Financial Management I</td>
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<td>MHA 626</td>
<td>Organizational Behavior and Leadership Theory</td>
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<td>MHA 627</td>
<td>Legal and Ethics I: Clinical Decision Making</td>
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<td>MHA 650</td>
<td>Health Care Statistics and Research</td>
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<tr>
<td>MHA 801</td>
<td>Professional Development Seminar I: Blending Theory with Practice</td>
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Block II

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<tr>
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<tr>
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<td>MHA 629</td>
<td>Organizational Development I: Systems Improvement</td>
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<tr>
<td>MHA 630</td>
<td>Health Care Financial Management II</td>
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Course Descriptions

**MHA 619 Health Care Human Relations Management:** This course provides an overview of the nature, organization, and function of human resources in health care organizations. Emphasis is placed on applications to real-world problems, rather than viewing human resources as an isolated function. This course begins with the Professional Development Seminar I (MHA 801) course and together make up Executive Residency I. Though the course begins during the Executive Residency it will continue online through the end of the term. (3.0 credit hours) *Corequisite: MHA 801*

**MHA 621 Overview of the U.S. Health System:** This course is a comprehensive analysis of the health care delivery system including the interface with the public health system and public health services. Components studied include members of the health care team and their roles; the solo practitioner; group practice; multi-specialty; HMOs; remote-site hospital clinics; tax-supported ambulatory health care facilities; home health care; mobile health care; mental health care; other inpatient and domiciliary care facilities; long-term care facilities; local, state and federal direct care and regulatory agencies; nonprofit organization promoting health and/or providing services; health planning and coordinating bodies at various levels; accrediting agencies for health care facilities and personnel; organizations representing health care personnel and facilities; organizations representing health care consumers; and health care services financing and reimbursement in public and private systems. Formal, informal, financial, and political relationships between and among these components are discussed. Additional topics include problems and potential solutions related to health services delivery and health care reform; consideration of differences between the U.S. system and the systems in other regions of the world; and trends in issues, policy, financing, regulation, and technology in U.S. health care. (3.0 credit hours)

**MHA 625 Health Care Financial Management I:** This course provides a basic understanding of health services financial management with emphasis on the not-for-profit entity. We will begin with elementary accounting concepts and then focus on discounted cash flow analysis, risk, financial statements, capital investments, debt and equity financing, capital budgeting, and health care reimbursement models. The course blends accounting and finance concepts to enhance the health care manager’s decision-making skills using accounting and finance theories, principles, concepts and techniques most important to managers in the health care industry. (3.0 credit hours)

**MHA 626 Organizational Behavior and Leadership Theory:** This course will provide a broad introduction to the theory, structure, and function of organizations, and the behavior of working in people in them. The primary purpose of the course will be to equip students with an understanding of organizational theory and related practical techniques for managing effectively in complex health care environments. (3.0 credit hours)

**MHA 627 Legal and Ethics I: Clinical Decision Making:** Health law and bioethics are broad, dynamic and interrelated fields. This course will address major legal,
ethical, and policy aspects of controversies in clinical health care delivery. Students will gain a working knowledge about how law and ethics can be applied to real-world health care issues. (2.0 credit hours)

**MHA 628 Legal and Ethics II: The Business of Health Care:** This course provides an overview of legal and ethical issues facing the health care industry. Students will gain a working knowledge about the influence that laws, policies and ethics have on the regulation, structure, and financing of the American health care system. Select topics include scope of practice, licensure and regulation of health care providers; common forms and structures of health care enterprises; and the function of licensure, accreditation and inspection in quality assurance for health facilities. (2.0 credit hours). Prerequisite: MHA 627

**MHA 629 Organizational Development I: Systems Improvement:** This course will incorporate a survey of contemporary organizational theory focusing on concepts relevant to health service organizations and systems. Emphasizing organizational environment, goals, strategy, structure and processes. The course provides a comprehensive overview of the key factors affecting an organization and exposes the student to theories that suggest effective organizational responses to such influences and changes. (3.0 credit hours)

**MHA 630 Health Care Financial Management II:** This course builds on the foundational learning from Health Care Financial Management I. We will shift our focus to for-profit entities within the health care sector. The course goes into greater depth on discounted cash flow analysis, risk, financial performance evaluation, capital investments, capital budgeting, debt and equity financing. A key objective of this class is to develop the student’s ability to engage in long-term financial forecasting and planning. Students will complete a comprehensive financial forecast as their final project for this field of study. (3.0 credit hours). Prerequisite: MHA 625

**MHA 631 Health Information Management:** This course prepares students practicing in the health care industry to effectively identify, use and manage health information technologies. Specific topics include an introduction to technologies and information systems supporting health care organizations; technology security; regulatory and compliance issues; system acquisition, implementation and support; health information exchange; alignment of technology initiatives; strategic planning; and assessing value in health information technology. (3.0 credit hours)

**MHA 633 Population Health and Managerial Epidemiology:** This course is a demonstrated application of principles and tools of epidemiology to the health care management decision-making process. It requires the student to apply skills learned in Block I and II courses with an application of statistics testing and financial models. The course will challenge the students to combine traditional public health models with contemporary theories of management. The students will demonstrate how health care leaders can incorporate the practice of epidemiology into complex management functions. The course structure includes an initial, reading-intense introduction to epidemiological principles, followed by a four-week, self-guided research, and concludes with a six-week structured case analysis based on the student derived research. This course is preparatory for Block III courses, sets the stage for case study analysis and builds a potential model for the student’s use in the Field Based Learning experience. (2.0 credit hours)

**MHA 642 Long-Term Care Internship:** The course is a field experience in which the student rotates throughout the nursing facility’s (NF’s) departments and functional areas to develop an intuitive feel for organizational life inside a nursing facility. This course serves as an alternative to MHA 749 Field Based Learning. The hours spent in this internship must adhere to the practicum requirements set forth in the Iowa Administrative Code regarding nursing home administration practicums. Students outside the state of Iowa are expected to learn the requirements for licensure within their state and provide a copy for the course faculty to review.

The LTC Internship is meant to provide the student with hands-on experience in a long-term care setting that is appropriate for the student’s growth and learning. This internship must be at least 400 hours and be guided under the direction of a qualified licensed nursing home administrator. The student must propose the internship experience to the preceptor and course faculty for review and approval. Once approval is provided, the course faculty will request that the student be registered for the course. Students successfully completing the long-term care internship (along with the balance of their MHA degree) should meet the state of Iowa practicum requirements to sit for the examination for licensure as a nursing home administrator.
IMPORTANT NOTE: Long-term care licensure in Iowa is regulated by the state. It is the sole responsibility of the student to assure and verify he/she has met the legal requirements for certification. Program faculty will assist with the requirements through the offering of the internship course (i.e., monitoring approved hours, verification of preceptor qualifications, providing an opportunity to reflect on the overall experience, etc.), but final responsibility for meeting all state, national or other licensure requirements rests with the student. (3.0 credit hours)

MHA 644 Health Care Economics and Policy: An introduction to the theoretical foundations of health care economics and its application to the health care industry. Understand how economic trends can impact a wide range of health care issues such as markets, payment systems, and policy. (3.0 credit hours)

MHA 646 Strategic Marketing and Communications: This course is designed to build innovative, customer-centered, thinking within the future leaders of the health care industry. This is accomplished with an introduction to the role of strategic decision-making through the core principles of marketing (the four P’s). Students will also experience basic database management, the conduct of an internal and external environmental analysis, primary and secondary data gathering and interpretation and creation of a marketing plan to meet an unsatisfied market need or build volume for a health care product or service. Finally, the role of corporate communication will be interwoven throughout the course as it supports marketing success. (2.0 credit hours)

MHA 648 Organizational Development II: Process Development: This course is about operations management and the strategic implementation of programs, techniques and tools for reducing cost and improving quality in health organizations. It covers the basics of operations management and explains how operation and process improvement relates to health care trends. In addition, this course introduces the theories and tools related to organizational and process improvement. (3.0 credit hours). Prerequisite: MHA 629

MHA 650 Health Care Statistics and Research: This is an introductory course that exposes the student to the use of statistical techniques for health care data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and introduction to the use of multivariate statistical techniques. Students will learn to apply statistical techniques for decision-making and/or research data analysis. (3.0 credit hours)

MHA 742 Strategy Formulation and Implementation: Having an effective strategy is widely seen as essential for organizational success. However, in practice, defining exactly what constitutes a “strategy” can prove surprisingly difficult. Indeed, the academic literature on strategy creation and implementation might be characterized as complex, confusing, and often directly contradictory. This course attempts to clarify and cut through these contradictions. We will examine the nature of strategy, what it is (and isn’t) and how one actually comes to develop an effective business strategy. You will be exposed to 10 leading “schools” or ways of thinking about strategy, and we will review the evidence for and against each methodology. You will also learn the distinction between strategic analysis and the act of strategy formulation. In the later part of the course, we will turn our attention to the equally important task of implementation. We will see that quite often, creating strategy has little to do with notions of traditional “strategic planning or strategy models.”

This course begins with the Professional Development Seminar II (MHA 802) course and together make up Executive Residency II. Though the course begins during the Executive Residency it will continue online through the end of the term. (2.0 credit hours). Prerequisites: MHA 801, MHA 619. Corequisite: MHA 802

MHA 748 Organizational Development III: Tools Application: This course will provide hands on learning opportunities for students to discover and practice quality improvement theories and tools through practical application. Lessons will incorporate a series of the MHA curriculum including personal experiences, discovering how to improve organizational systems and processes. At the outcome of the class, the student will be able to apply basic quality and continuous improvement tools in a work or personal setting. This course begins with the Professional Development Seminar III (MHA 803) course and together make up Executive Residency III. Though the course begins during the Executive Residency, it will continue online through the end of the term. (1.0 credit hour). Prerequisites: MHA 802, MHA 742, MHA 648. Corequisite: MHA 803
MHA 749 Field Based Learning: This course serves a culminating experience in which students are expected to apply knowledge gained from their graduate experience. The course is designed to provide a field-based experience in which students demonstrate mastery of the programs curriculum and allow an opportunity for closure and connection between courses. The purpose of this field-based experience is to facilitate the integration and synthesis of program content through critical thinking; it is also a turning point for the student from education to professional practice.

Students may choose from the following optional tracts within the Field Based Learning experience:

- Long-Term Care (requires additional 400 hour LTC practicum)
- Research (requires sponsoring faculty approval)

(3.0 credit hours). Prerequisite: Students beginning their degree prior to fall 2012: 36.0 credit hours of core MHA courses; it is recommended MHA 749 be the last course the student completes. Students beginning their degree fall 2012 or later: completion of all MHA courses and Executive Residencies; MHA 803 is a suggested co-requisite to MHA 749 and enrollment in MHA 749 must be in the student’s final term.

MHA 801 Professional Development Seminar I: Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort based curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed to the campus by key officials and receive a comprehensive orientation to the MHA program and graduate level education. Select topics that will be addressed include personal leadership, understanding differences in other, evidence-based scholarship, graduate writing, and competency-based education. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the first phase of their academic program. Students meet with their peers in learning communities, led by their academic advisor and peers who are further in the program to support, mentor and grow as scholars and leaders.

Pre-residency work includes self-assessment, reading, self-reflection, and setting up student’s electronic portfolio accounts. Work during the residency includes participation in learning community activities, seminar based learning, and, one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for review.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies, and a five-year subscription to the program’s electronic portfolio tool. The student is responsible for purchasing required textbooks. (2.0 credit hours). Corequisite: MHA 619

MHA 802: Professional Development Seminar II: Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort-based curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed back to the campus by key officials and will be challenged to build on and integrate their prior learning with new content to include personal and organizational wellness, change leadership, ways to work with a governing board, advocacy, conflict management, work/life balance and ethical decision making simulations. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the final block of courses.
Students meet with their own peers in learning communities and will assume the role as mentors or guides to the new students enrolled in MHA 801.

Pre-residency work includes self-assessment, reading, and self-reflection. Work during the residency includes participation in learning community activities, seminar-based learning and one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for review.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies. The student is responsible for purchasing required textbooks. (1.0 credit hour). Prerequisites: MHA 801, MHA 619. Corequisite: MHA 742

MHA 803 Professional Development Seminar III: Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort based curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed back to the campus by key officials and will be challenged to build on and integrate their prior learning with new content to include project management, team leadership, the role of gender in health care leadership, storytelling, and the preparation and presentation of their Field Based Learning project proposal. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the final phase of their academic program.

Students teach their peers how to guide others in learning communities to mentor and grow as scholars and leaders.

Pre-residency work includes self-assessment, reading, and self-reflection. Students must come to the residency with a preceptor and project identified for their Field-Based Learning project in MHA 749. Work during the residency includes participation in learning community activities, seminar based learning, and one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for a final review and grade.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies. The student is responsible for purchasing required textbooks. (1.0 credit hour). Prerequisite: MHA 802, MHA 742. Corequisite: MHA 748

Program Outcomes
To review various programmatic outcomes statistics (e.g., assessment information, completion rates, graduate survey data, student satisfaction information, etc.), please visit the program’s outcomes webpage.

Graduation Requirements
A student is scheduled for graduation after successful completion of all degree requirements and upon recommendation of the program faculty for graduation. Students must have a grade point average (GPA) of at least 3.0 to be eligible for graduation.

Nursing Home Administrator License
The MHA Program is the only graduate program in Iowa approved by the Iowa Board of Examiners for Nursing Home Administrators. Completing the M.H.A. degree can fulfill the board criteria to sit for the licensure exam in Iowa. For licensure, the state of Iowa requires a specialized field-based learning experience in long-term care along
with the completion of required course work. Long-term care offers growing opportunities in Iowa and other states.

**Doctor of Physical Therapy**

The College of Health Sciences at Des Moines University offers an accredited entry-level program of study in physical therapy. The program includes 34 months of academic study and supervised clinical internships leading to a Doctor of Physical Therapy (D.P.T.) degree.

The DPT Program reflects the changing direction of the profession and continuous advancements in medicine. The American Physical Therapy Association supports and promotes entry to the physical therapy profession through preparation at the doctoral level. This is warranted by identification and expansion of a unique body of knowledge and increases in the scope of practice and professional physical therapy responsibilities.

**Mission**

The Doctor of Physical Therapy Program will provide collaborative educational experiences that foster the development of autonomous practitioners that are actively engaged in the community and reflect excellence in manual and holistic concepts within a diverse healthcare environment.

**Vision**

The Doctor of Physical Therapy Program will be recognized as the program of choice for highly qualified students, an engaged partner in healthy community transformation, and a cultivator of progressive educational and research opportunities in rehabilitative sciences.

**Student Learning Outcomes**

- Apply evidence-based principles within their practice environment.
- Demonstrate knowledge of foundational and clinical sciences associated with the practice of physical therapy.
- Exhibit lifelong learning behaviors for personal and professional growth.
- Engage in service to the profession, university and community.
- Display moral, ethical and legal behaviors in academic, health care and community environments.
- Interact/communicate with patients/clients, caregivers, health care providers and community members in a manner that is congruent with situational and cultural needs.
- Demonstrate clinical decision-making abilities in providing patient care.
- Perform necessary skills safely for direct patient care.
- Perform administrative duties/activities associated with practice management.
- Perform duties/activities associated with patient management.
- Provide care/consultation for health promotion and wellness in health care and community environments.

**Program Requirements**

To be considered for admission, you must have a bachelor’s degree from a regionally accredited college or university prior to the start of orientation.

Applicants must submit entrance exam (e.g., GRE) scores during the application process. Required courses must be completed before registration. A minimum cumulative GPA of 3.0 is required for consideration. Applicants should also have a minimum science GPA of 3.0 to be considered competitive. The following course work must be completed prior to matriculation; grades below a “C-” will not be accepted.

<table>
<thead>
<tr>
<th>Biological Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>A course each of human anatomy and human physiology.</td>
</tr>
<tr>
<td>The anatomy and physiology requirements can be fulfilled by a series of two courses of combined anatomy and physiology. They can also be fulfilled by one combined anatomy and physiology course plus a human physiology course.</td>
</tr>
<tr>
<td>All courses should be taken through the biology department if possible. If taken through another department, the course may be subject to review by the admissions committee, and a possibility exists that the course</td>
</tr>
<tr>
<td>16 semester hours</td>
</tr>
</tbody>
</table>
will be unacceptable.

- Exercise physiology does not fulfill the human physiology requirement.
- Labs are required with all biology classes. If labs are not offered in anatomy and physiology at your institution, please include a course description for review by the admissions committee.

Chemistry
A two-semester chemistry sequence is required. Each course must include a lab. Courses designed for science or health science majors are preferred.

Physics
A two-semester physics sequence is required. Each course must include a lab. Courses designed for science or health science majors are preferred.

Statistics
This may be taken either through the math or psychology department.

Psychology
- One course of general or introductory psychology is required.
- Two upper division courses (other than statistics) are required. Abnormal and developmental psychology courses are strongly recommended to fulfill this requirement.
- Psychology courses must be taken through the psychology department.

English
- Composition/Speech/Communications
- One course of English composition is required.
- Testing out is acceptable if it is reflected on an official transcript.
- Literature courses do not fulfill this requirement.
- Writing across the curriculum and writing-intensive courses will be considered. Course descriptions should be included with your application.

Humanities/Social Sciences
Literature, history, philosophy, sociology, theology, foreign language and art, music or theater appreciation will fulfill this requirement.

Medical Terminology
1 course

Other recommended course work includes biomechanics, kinesiology, exercise physiology, genetics, abnormal psychology, developmental psychology and math (trigonometry or calculus).

Applicants are also required to observe physical therapists at work in various settings. We require that you spend at least 50 hours observing licensed physical therapists in both inpatient and outpatient settings. Completion of 40 hours of observation is required prior to an applicant's eligibility to be considered for an admission interview.

Additional information can be found on the DPT Program Admissions Requirements website.

Program Application Process
Application to the Doctor of Physical Therapy program is accepted through the Physical Therapist Centralized Application Service (PTCAS).

Detailed information regarding the process can be found on the DPT Program Admissions website.

Applicants will be contacted by email if they are selected for an on-campus interview. An interview is required for admission. Applicants will receive a response to their application after the interview process.

Technical Standards for Admission, Academic Promotion and Graduation
A candidate for the Doctor of Physical Therapy degree must have abilities and skills in eight areas: observation; communication; motor; sensory; strength and mobility; visual integration; intellectual, conceptual, integrative and
quantitative; and behavioral and social attributes. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

Technical Standards for Admission, Academic Promotion and Graduation

Curriculum Overview and Outline

Each student must complete each of the courses listed in the accompanying set of course descriptions. The curriculum is designed to assist students with professional and personal development. This is accomplished through integrated and sequential learning experiences. The experiences provide the basic cognitive, affective and psychomotor knowledge and skills needed for the practice of physical therapy. These experiences are also designed to provide students with the opportunity to gain personal insight into their style for learning, teaching, relating and changing in society. Ultimately, the program motivates students to become lifelong learners.

To ensure excellence for both students and society, formative and summative evaluation is essential. Evaluation facilitates learning and provides validation for program excellence.

The faculty is committed to excellence in teaching and learning, and to serving students, the community and the profession. Excellence is achieved through selection of students with unique natural talents and abilities followed by nurturing and development.

The program is 34 months in length and is divided into eight terms. Each term builds on the information from previous terms. The length of time for each term varies, but approximates the following schedule: Year 1 Fall Term – 20 weeks; Year 1 Spring Term – 20 weeks; Year 2 Summer Term – 9 weeks; Year 2 Fall Term – 19 weeks; Year 2 Spring Term – 20 weeks; Year 3 Summer Term – 10 weeks; Year 3 Fall Term – 18 weeks; Year 3 Spring Term – 20 weeks.

Year 1 Fall Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 1620</td>
<td>Clinical Applications – Health Promotion</td>
<td>1.5</td>
</tr>
<tr>
<td>DPT 1640</td>
<td>Research Design and Statistics</td>
<td>2.0</td>
</tr>
<tr>
<td>DPT 1650</td>
<td>Foundational Sciences – Anatomy</td>
<td>9.0</td>
</tr>
<tr>
<td>DPT 1651</td>
<td>Foundational Sciences – Health Promotion</td>
<td>4.0</td>
</tr>
<tr>
<td>DPT 1660</td>
<td>Patient Management – Health Promotion</td>
<td>2.0</td>
</tr>
<tr>
<td>DPT 1690</td>
<td>Professional Issues and Development 1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Year 1 Spring Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 1621</td>
<td>Clinical Applications – Musculoskeletal Lower Quadrant</td>
<td>2.0</td>
</tr>
<tr>
<td>DPT 1641</td>
<td>Epidemiology and Evidence Based Practice</td>
<td>1.0</td>
</tr>
<tr>
<td>DPT 1652</td>
<td>Foundational Sciences – Musculoskeletal Lower Quadrant</td>
<td>4.5</td>
</tr>
<tr>
<td>DPT 1661</td>
<td>Patient Management – Musculoskeletal Lower Quadrant</td>
<td>8.0</td>
</tr>
<tr>
<td>DPT 1680</td>
<td>Health Promotion and Prevention Practicum</td>
<td>2.0</td>
</tr>
<tr>
<td>DPT 1691</td>
<td>Professional Issues and Development 2</td>
<td>1.0</td>
</tr>
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</table>

Year 2 Summer Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 2622A</td>
<td>Clinical Applications – Musculoskeletal Upper Quadrant</td>
<td>1.0</td>
</tr>
<tr>
<td>DPT 2653A</td>
<td>Foundational Sciences – Musculoskeletal Upper Quadrant</td>
<td>2.5</td>
</tr>
<tr>
<td>DPT 2662A</td>
<td>Patient Management – Musculoskeletal Upper Quadrant</td>
<td>5.0</td>
</tr>
<tr>
<td>DPT 2692A</td>
<td>Professional Issues and Development 3</td>
<td>0.5</td>
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</table>

Year 2 Fall Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 2622B</td>
<td>Clinical Applications – Musculoskeletal Upper Quadrant</td>
<td>2.0</td>
</tr>
</tbody>
</table>
### Year 2 Spring Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 2623</td>
<td>Clinical Applications – Neuromuscular Systems</td>
<td>2.5</td>
</tr>
<tr>
<td>DPT 2654</td>
<td>Foundational Sciences – Neuromuscular Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>DPT 2663</td>
<td>Patient Management – Cardiopulmonary Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>DPT 2664</td>
<td>Patient Management – Neuromuscular Systems, 7.0 credit hours</td>
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</tr>
<tr>
<td>DPT 2693</td>
<td>Professional Issues and Development 5</td>
<td>2.5</td>
</tr>
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### Year 3 Summer Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 3631</td>
<td>Clinical Internship 2</td>
<td>10.0</td>
</tr>
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### Year 3 Fall Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>DPT 3610</td>
<td>Civic Engagement</td>
<td>1.0</td>
</tr>
<tr>
<td>DPT 3670</td>
<td>Practice Topics</td>
<td>10.0</td>
</tr>
<tr>
<td>DPT 3694</td>
<td>Professional Issues and Development 6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### Year 3 Spring Term

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPT 3632</td>
<td>Clinical Internship 3</td>
<td>8.0</td>
</tr>
<tr>
<td>DPT 3633</td>
<td>Clinical Internship 4</td>
<td>8.0</td>
</tr>
</tbody>
</table>

In addition to the required course work outlined above, 4.0 credit hours of elective course work is required for graduation.

**Course Descriptions**

**DPT 1620 Clinical Applications – Health Promotion:**

The Clinical Applications course series uses case scenarios to develop the student's psychomotor and clinical decision making skills. This first Clinical Applications course centers on the ability of the practitioner to obtain the data needed from a client/patient interview to determine a course of action. Case topics focus on the screening tools used and program planning for the prevention and health promotion needs of the client. The integration of massage theory and practice and palpation are also major components of this course. Successful completion of the American Heart Association Basic Life Support for Healthcare Providers (CPR & AED) Program is required to pass this course. (1.5 credit hours)

**DPT 1621 Clinical Applications – Musculoskeletal Lower Quadrant:**

The case scenarios used in this second course within the clinical applications series will develop the foundational skills needed for practice. The course includes cases to develop examination skills in goniometry, manual muscle testing, and sensory testing. Transfer training and the safe use of assistive gait devices are also included within the course content. The application of various biophysical agents is also a major component of this course. The determination of a diagnosis and prognosis for a variety of diverse client / patient problems are done via case presentations in a small group setting. Cases include client / patient with lower quadrant musculoskeletal disorders. The student will also be assigned lab time within a clinical setting to observe patient care. (2.0 credit hours)

**DPT 1640 Research Design and Statistics:**

The need to make clinical decisions based on the application of evidence requires an understanding of the fundamentals of research methods and analysis. The course is the first in a series of two geared to providing a framework for the integration of evidence into clinical practice. Focus within this course is on basics of research design and implementation. The latter portion of this course focuses on statistical methods and their application in the healthcare literature. The procedures for meta-analysis will also be introduced. (2.0 credit hours)

**DPT 1641 Epidemiology and Evidence Based Practice:**

This course focuses on the basic concept of epidemiology and biostatistics to assist in making evidence based health care decisions. The health care provider is faced with a
A vast wealth of data that must be sifted within a short course of time. An understanding of data summaries, population descriptions, risk classification, predictive statistics and outcomes is critical. The application of research fundamentals into clinical practice is the center of this course. Using the framework of the World Health Organization’s International Classification of Functioning, Disability and Health (ICF) model the participant will actively engage in the evaluation of available information to determine the course of care. (1.0 credit hour)

DPT 1650 Foundational Sciences – Anatomy: The Gross Anatomy course provides an in-depth study of the human body. One of the unique privileges in the anatomy course will be to dissect a human body. Special emphasis is placed on developmental anatomy and normal radiographic anatomy. Students will be expected to have a thorough understanding of gross anatomy, neuroanatomy, select embryology, and radiographic anatomy of the human body. This course will also include clinical correlation labs which coincide with the area of the body being studied. (9.0 credit hours)

DPT 1651 Foundational Sciences – Health Promotion: This Foundational Sciences course addresses the underlying physiological issues related to health and well-being. The physiology of the musculoskeletal, cardiac, respiratory and immune systems is covered. The physiological responses to exercise for health are addressed. (4.0 credit hours)

DPT 1652 Foundational Sciences – Musculoskeletal Lower Quadrant: The focus of the Foundational Sciences in this term is introduction to general biomechanics, tissue mechanics, and biomechanics of the lower quadrant. This includes the lumbar spine, pelvis/sacrum and the lower extremity. Gait, locomotion and pharmacology are primary topics. Pain pathways and mechanisms are presented. (4.5 credit hours)

DPT 1660 Patient Management – Health Promotion: Implementation of the patient management model as outlined in the Guide to Physical Therapist Practice begins with this course. This course concentrates on the provision of services that promote the health and quality of life within diverse patient populations. Fundamentals of nutrition and nutritional issues related to clinical practice are also covered. (2.0 credit hours)

DPT 1661 Patient Management – Musculoskeletal Lower Quadrant: This is the second course in the patient management series. This course focuses on the management and care of patients with impairments in body function and structure, activity limitations or participation restrictions related to the lower quadrant. Principles of differential diagnosis are introduced. Fundamental handling skills are presented, including gait training, body mechanics, and positioning. Students are expected to make clinical decisions regarding patient intervention based on the evaluation of gathered data. Safe and efficient applications of procedural interventions specific to musculoskeletal system impairments are taught. This course also presents information related to the pharmacologic, medical, and surgical management of patients with musculoskeletal dysfunction. (8.0 credit hours)

DPT 1680 Health Promotion and Prevention Practicum: This two week practicum is designed for students to have opportunities to participate in the development, implementation, and assessment of community prevention, health promotion, fitness, and wellness programs for individuals, groups, and communities. Students gain experience to design and execute programs that promote optimal health throughout the lifespan by providing information or consultation on many aspects of health risks and disability. Students complete practicum experiences in a variety of settings from school systems, community and corporate wellness centers, hospital and clinic-based specialty services to non-profit organizations. (2.0 credit hours)

DPT 1690 Professional Issues and Development 1: This is the first course in a series of Professional Issues and Development courses. The initial portion of the course covers orientation to the Doctor of Physical Therapy Program and to the profession of physical therapy. The remainder of the course is designed to introduce the student to issues concerned with personal and professional behaviors. The primary focus will be on student growth and development. The prevention and health promotion needs of a diverse population are also core components of this course. Health care models and beliefs, motivational strategies, and educational theory are presented with a focus toward the needs of individual clients. Community resources and consultation services will be discussed. Scopes of practice issues are presented. Students begin the process of developing communication skills needed to establish a therapeutic relationship with their clients. (2.5 credit hours)
DPT 1691 Professional Issues and Development 2: The second course in the Professional Issues and Development series is designed to address some psychosocial and practice aspects related to clinical practice. Clinical learning and education will encompass theoretical and practical applications. They include patient/client education, health literacy concepts, documentation applications, and clinical education models. Lifespan issues related to health and wellness from birth to death, including physical, psychological, social, and economic aspects will be introduced. Life stages from prenatal, childhood, adolescence, adulthood, and late adulthood will be covered, with an emphasis on issues relevant to the practice of physical therapy. (1.0 credit hour)

DPT 2622A Clinical Applications – Musculoskeletal Upper Quadrant 1: The case scenarios used in this third course within the clinical applications series will focus on the evaluation and interventions associated with head, cervical and thoracic spine dysfunction. The course includes cases that continue to develop examination skills. The determination of a diagnosis, prognosis and plan of care for a variety of diverse client / patient problems are done via case presentations. The application of various biophysical agents is also major component of this course. Students will be required to participate in a DMU sponsored community screening. (1.0 credit hours)

DPT 2622B Clinical Applications – Musculoskeletal Upper Quadrant 2: This fourth course within the clinical applications series is a continuation of DPT 2622A and will focus on the evaluation and interventions associated with upper extremity dysfunction. The course includes cases that continue to develop examination and intervention skills. The determination of a diagnosis, prognosis and plan of care for a variety of diverse client / patient problems are done via case presentations. (0.5 credit hour)

DPT 2623 Clinical Applications – Neuromuscular Systems: This clinical applications course continues to concentrate on the acquisition of clinical decision making and psychomotor skills related to direct patient care. Cases include clients/patients with movement system issues related to neuromuscular or cardiovascular/pulmonary disorders. Cultural diversity, developmental considerations, and effects of aging are taken into account. Various patient and clinical labs will be conducted both on and off of the DMU campus. (2.5 credit hours)

DPT 2630 Clinical Internship 1: This ten week supervised clinical internship is designed to provide students with experiences in direct patient management of the patient with musculoskeletal disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. (10.0 credit hours)

DPT 2653A Foundational Sciences – Musculoskeletal Upper Quadrant 1: The foundational sciences series continues with the biomechanics and function of the cervical and thoracic spine, and TMJ. Geriatrics and normal development of the newborn through year one are primary topics. The course also includes Part 1 of an evidence based practice group project, where the students are expected to propose, refine and perform literature searches in order to identify pertinent literature in support of a systematic review manuscript to be completed during the fall term. (2.5 credit hours)

DPT 2653B Foundational Sciences – Musculoskeletal Upper Quadrant 2: The foundational sciences series continues with the biomechanics and function of the upper extremity. The course also includes an evidence based practice group project, where the students are expected to organize literature findings and synthesize evidence in the form of a systematic review manuscript. (1.0 credit hour)

DPT 2654 Foundational Sciences – Neuromuscular Systems: This foundational sciences course focuses on the neurosciences related to higher order functions. Topics covered include the special senses and the limbic system. It includes material on normal physical and cognitive development from birth to death. A significant amount of the course work involves participation in scholarly activities. (3.0 credit hours)

DPT 2662A Patient Management – Musculoskeletal Upper Quadrant 1: This is the third course of the patient management series. This course focuses on the management and care of a client/patient with impairments, activity limitations and participation restrictions related to the head, and cervical/thoracic musculoskeletal systems. Principles of differential diagnosis are introduced. The student is expected to make clinical judgments regarding clients/patients intervention based on the evaluation of data gathered. The safe and
efficient application of procedural interventions specific to musculoskeletal system impairments is covered. The course also includes content related to the pharmacologic, medical, and surgical management of the client/patient with musculoskeletal pathologies within these areas. Occupational medicine concepts are also covered within this course. (5.0 credit hours)

**DPT 2662B Patient Management – Musculoskeletal Upper Quadrant 2:** This fourth course within the patient management series is a continuation of DPT 2662A. The focus is on the management and care of a client/patient with impairments, activity limitations and participation restrictions related to the upper extremity. The student is expected to make clinical judgments regarding clients/patients intervention based on the evaluation of data gathered. The safe and efficient application of procedural interventions specific to musculoskeletal system impairments is covered. The course also includes content related to the pharmacologic, medical, and surgical management of the client/patient with upper extremity musculoskeletal pathologies. (3.0 credit hours)

**DPT 2663 Patient Management – Cardiopulmonary Systems:** The patient management of clients/patients with cardiovascular/pulmonary disorders is the key content of this course. The course will present course work related to the pharmacologic, medical, and surgical management of the client/patient with cardiovascular/pulmonary pathologies. Evaluation and intervention procedures within ICU and acute care environments will also be a focus. Cultural diversity, developmental considerations, and effects of aging are taken into account as the material of this course is presented. (3.0 credit hours)

**DPT 2664 Patient Management – Neuromuscular Systems:** The patient management of clients/patients with neuromuscular disorders is the key content of this course. The physical therapy and medical management of pediatric and geriatric patient is also a major component. Cultural diversity, developmental considerations, and effects of aging are taken into account as the material of this course is presented. The course will also present course work related to the pharmacologic, medical, and surgical management of the client/patient with neuromuscular pathologies. (7.0 credit hours)

**DPT 2692A Professional Issues and Development 3:** The professional issues and development series continues with content related to regulatory and reimbursement issues. (0.5 credit hour)

**DPT 2692B Professional Issues and Development 4:** The professional issues and development series continues with content related to ethical issues associated with client/patient care. Emphasis will be placed on ethical considerations related to direct patient care and patient rights. (1.0 credit hour)

**DPT 2693 Professional Issues and Development 5:** The fifth course in the Professional Issues and Development series covers a wide range of topics. Information is presented specific to employer-employee relations such as recruitment and retention practices, job descriptions, performance appraisals, development of a professional resume, and job interviewing strategies. Practice management topics of best practice, history of health care, and case management are also covered. Additional material related to governmental and advocacy factors which influence the current and future delivery of health care and the implications for physical therapy practice are presented. Students are introduced to current professional topics by participation in a Mock House of Delegates. (2.5 credit hours)

**DPT 3610 Civic Engagement:** The purpose of this civic engagement course is to encourage the development of physical therapists as socially responsible professionals with greater awareness of community resources. The reflective practitioner will internalize an appreciation for the value of service. The experiences that are associated with this course are varied. Service in three categories is required a) to the Community, b) to the Profession, and c) to the University. The design of an individual students plan should reflect a desire to move beyond the comfort zone. Projects involving underserved or diverse populations are encouraged. Equally, active participation and taking leadership roles with University, professional or community organizations is also noteworthy. “The Science of Healing - The Art of Caring” should be more than just a tagline. (1.0 credit hour)

**DPT 3631 Clinical Internship 2:** This ten week supervised clinical internship is designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis,
prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective requirement during this ten week internship. (10.0 credit hours)

**DPT 3632 Clinical Internship 3:** The final clinical experiences include two eight-week clinical internships. These internships are designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective requirement during one of these eight week internships. (8.0 credit hours)

**DPT 3633 Clinical Internship 4:** The final clinical experiences include two eight-week clinical internships. These internships are designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective requirement during one of these eight week internships. (8.0 credit hours)

**DPT 3670 Practice Topics:** Topics within this course include women’s health, pain management, and integumentary disorders. Clinical medicine topics cover the renal, gastrointestinal, endocrine systems and infectious disease. Thrust manipulation is a key focus. Complimentary therapies such as yoga, tai chi, cranial sacral therapy, and myofascial release are introduced. Additional therapeutic exercise strategies will also be included. Material will be covered by using traditional lab and lecture presentations as well as case based learning with an emphasis on clinical decision making in patient management and efficient use of resources. Successful completion of the American Heart Association Basic Life Support for Healthcare Providers (CPR & AED) program is required to pass this course. (10.0 credit hours)

**DPT 3694 Professional Issues and Development 6:** This is the final course in the Professional Issues and Development series. Students will be exposed to business development and skills needed to expand or start up a physical therapy practice. Management and compliance programs as well as legal aspects of health care as related to the delivery of physical therapy services are also addressed. Other topics related to clinical reasoning, career development, cultural diversity, and professional development are discussed. (3.5 credit hours)

**Elective Courses**

**INST 2003 Cranial Nerves – A Case-Based Approach:** This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)

**INST 2017 Spiritual/Religious Issues Elective:** This elective is designed to facilitate greater comfort, confidence and competence in exploring and discussing difficult existential issues of life with patients and colleagues. Many of these have religious and spiritual dimensions, and all are pertinent to sensitive and effective patient care. Topics include recognizing and responding to spiritual distress; the spiritual challenge of illness; responding to questions of meaning; models of spiritual assessment; understanding and responding to the effects of trauma and evil; lessons learned from those wounded by war; elements of healing learned from indigenous cultures; and caring for the patient, family and the body at the end of life. (1.0 credit hour)

**INST 2020 Beginning Medical Spanish:** Introduces the student to basic Spanish vocabulary, Spanish medical vocabulary, comprehension and sentence structure. Intended for students who have little or no proficiency in conversational Spanish. (1.0 credit hour)

**INST 2023 Intermediate Medical Spanish:** The purpose of this course is to teach communication with Spanish-speaking patients in order to form strong clinician-patient rapport. Students will learn a standardized universal Spanish that also includes many words and expressions
that take on different meanings in different countries and regions. Latino patients will come from a variety of countries, education levels, socio-economic backgrounds and origins (whether urban or rural areas). This class will address some of those differences. (1.0 credit hour)

**INST 2024 Animal-Assisted Therapy and the Use of Service Animals:** The goal of this course is to acquaint future health care professionals with the wide variety of ways animals are used in animal-assisted activities, animal-assisted therapy, and as service animals in both physical and psychological support roles. The students will, through outside reading, class demonstrations, discussion, etc., obtain a deeper understanding of the value and ethics of using an animal as part of therapy. The course will meet for six or seven two-hour on-campus sessions and make an off-campus trip to a hippotherapy center. (1.0 credit hour)

**INST 2026 Problem-Based Anatomy:** The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, *Problem-Based Anatomy*. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour)

**INST 2030 Reproductive Health Choices:** Offered in partnership with Planned Parenthood of the Heartland as education and training for possible internships. Training will cover reproductive health and available reproduction options. Trainers from Planned Parenthood, under the supervision of the coordinator, will present the course material. (1.0 credit hour)

**INST 2038 Research in Physical Therapy:** This course is designed to introduce students to conducting research in Physical Therapy. Students must have a faculty mentor agree to supervise them prior to enrolling in the course. Students who choose a research elective are generally expected to take a total of four research electives with their faculty mentor over their course of student in the Doctor of Physical Therapy program. (1.0 credit hour)

**INST 2042 Book Club on Disability Awareness:** On-line and student-directed, this course for Physical Therapy students will span 10 weeks. Small groups will select an autobiography or biography of an individual with physical disability and discuss through a dialogue on the learning management system. The purpose of the course is to enhance the student’s understanding and perception of how individuals with disability recover and return to life tasks and reflect on how this understanding impacts their relationship with patients and care givers. Student groups will set their timelines and lead the group discussions. A pre and post-course survey/evaluation are required. (1.0 credit hour)

**INST 2055 Developing Leadership in Orthopaedic Manual Physical Therapy:** This elective is designed for students considering continuing their education in orthopaedic manual physical therapy beyond entry-level through residency and/or fellowship training. Students will be mentored in a small group environment to learn and refine hands-on skills in thrust and non-thrust manipulation while participating in leadership activities akin to those required of residents and fellows. Leadership activities will include developing an evidence-based newsletter for patients or physicians; providing an evidence-based manual therapy in-service or contributing to an online evidence-based physical therapy resource; and serving as a peer reviewer for classmates’ evidence-based manual therapy projects. (1.0 credit hour)

**INST 2058 Stroke Camp:** The course will allow third-year Physical Therapy students to provide intensive physical therapy to a small group of community dwelling individuals, post-stroke. The small group setting will allow prompt feedback to students regarding their skill set from supervising therapists. While the focus will be on physical therapy, given the team aspect of rehab care, incorporation of occupational and speech therapy and therapeutic recreation will be considered. (2.0 credit hours)

**INST 2066 Foundational Manual Skills:** Peer Teaching: This course is a platform by which the participant will continue to develop competence in performing fundamental manual skills related to the practice of physical therapy. The course uses a learn-teach-learn model of instruction. The student will be asked to learn a skill, then teach that skill to others, and then critically
analyze their performance in order to improve. The students will be asked to assist in teaching muscle performance and joint motion measurement, abdominal exam, head and neck exam, and sensory testing. Each student will be assigned a small group of first year PT students (four – eight) as a teaching/learning team. (1.0 credit hour)

**INST 2067 Interprofessional Simulation in Emergency Situations:** This course brings together two important aspects of training future Doctoral Physical Therapy (DPT) students. The first aspect is to provide an opportunity for DPT and Nursing students to collaborate with each other in a simulated healthcare experience focused on emergency situations. Through this collaboration, DPT students will be able to refine communication skills with nursing students and patient simulators. DPT students will be able to learn from, with and about each other with nursing, in simulated emergency situations. In addition, this activity provides an opportunity for the DPT students to work with high fidelity simulators to refine skills. (1.0 credit hour)

**INST 2078A Practical Foundations for Medical Education:** This course will provide students with the opportunity to explore the fundamentals of education including learning theory, assessment, lesson design, and self-evaluation through group discussion and reflective writing. Practice developing and implementing your own engaging lessons utilizing active learning approaches. Understand and be able to justify instructional choices. Prepare yourself for a career in academia by developing a robust teaching philosophy statement and the skills and knowledge necessary to continually improve your teaching practice. (1.5 credit hours)

**INST 2078B Applications of Practical Foundations for Medical Education:** This course will provide students with the opportunity to apply the concepts they learned in the pre-requisite course, Practical Foundations for Medical Education (INST 2078A). Students will complete lesson objective writing, design and implement educational experiences, and create student learning assessment tools. Students will develop and direct tutorial sessions for their peers in a manner congruent with their academic program’s curriculum. (1.0 credit hours) **Prerequisite:** INST 2078A

**INST 2079 Yoga as Medicine:** This course explores the concept of integrative medicine by using yoga as a healing art. The biopsychosocial model of patient care will be incorporated in studying yoga's neurophysiology and biomechanics and its Eastern traditions of meditation, asana, and pranayama. Experiential knowledge is key in the understanding and practice of yoga; therefore, participants will be required to practice asana (physical postures), meditation, and pranayama (yogic breathing) throughout the course. No experience in yoga is necessary and the course is open to all students, face-to-face students, student in online programs, and students on clinical rotations and internships as well as faculty and staff. (1.0 credit hour)

**Program Outcomes**
To review the program’s outcome statistics (e.g., board exam pass rates, graduation rates, etc.), please visit the “student outcomes” section of the program’s strengths webpage.

**Graduation Requirements**
To receive a Doctor of Physical Therapy degree, a student must satisfy the following:

1. Successful completion of all academic requirements:
   a. Pass all academic course work and clinical internships.
   b. Maintain a grade point average (GPA) of at least a 2.0.
2. Approval for graduation by the program faculty, Dean and the Board of Trustees of the University following recommendation by the Academic Progress Committee. Academic performance and professional promise is evaluated and considered for graduation.
3. Satisfactory resolution of all financial obligations,
4. Attendance at the graduation ceremony is required in order to receive the degree of Doctor of Physical Therapy (D.P.T.) at which time the degree is conferred. Students graduating at midterm may be granted an exception to this requirement.

**Licensure**
Students who satisfactorily complete the requirements for graduation from the physical therapy program of the College of Health Sciences are eligible to take the National Physical Therapy Exam (NPTE) given by the Federation of
State Boards of Physical Therapy. A passing score on this examination is one requirement for practice as a physical therapist in all states.

The pass rate for DMU students taking the exam is 100% over the last three years.

**Post-Professional Doctor of Physical Therapy**

The University’s Post-Professional D.P.T. Program reflects the changing direction of the profession and continuous advancements in medicine. The American Physical Therapy Association supports and promotes entry to the physical therapy profession through preparation at the doctoral level. The PPDPT Program allows practicing therapists to advance their current physical therapy degree to the Doctor of Physical Therapy.

The final application deadline for this program is July 15, 2015; the final cohort of students will be enrolled for the fall of 2015. Students enrolling will follow a two-year plan of study model, or may work at an accelerated pace as the program is scheduled to close in 2017.

**Mission**

To provide high-quality, clinically-applicable educational opportunities, grounded in evidence-based practice for physical therapy professionals in a doctoral-level profession.

**Vision**

To be the post-professional development program of choice for health care providers to acquire evidence-based knowledge to “exceed contemporary standards of practice” in a changing health care environment.

**Student Learning Outcomes**

- Apply evidence-based principles within their practice environment.
- Demonstrate knowledge of foundational and clinical sciences associated with the practice of physical therapy.
- Exhibit lifelong learning behaviors for personal and professional growth.
- Engage in service to the profession, university and community.
- Display moral, ethical and legal behaviors in academic, health care and community environments.
- Interact/communicate with patients/clients, caregivers, health care providers and community members in a manner that is congruent with situational and cultural needs.
- Demonstrate clinical decision-making abilities in providing patient care.
- Perform necessary skills safely for direct patient care.
- Perform administrative duties/activities associated with practice management.
- Perform duties/activities associated with patient management.
- Provide care/consultation for health promotion and wellness in health care and community environments.

**Technical Standards for Admission, Academic Promotion and Graduation**

A candidate for the Post-Professional Doctor of Physical Therapy degree must have abilities and skills in five areas: sensory; motor; intellectual – conceptual, integrative, and quantitative abilities; behavioral; and social. While the University is committed to complying with the terms of the Americans with Disabilities Act, certain minimum technical standards must be present in all students seeking a health care degree. Reasonable accommodations will be provided when supported with appropriate documentation, but in all cases, students must be able to perform in a reasonably independent manner. Students must comply with these technical standards in order to fulfill the terms of professional promise for academic promotion as defined in the Student Handbook.

**Curriculum Overview and Outline**

Students are required to complete an orientation tutorial prior to enrolling in their first course.

Students must successfully complete 11 courses, equating to 24.0 credit hours, to receive the D.P.T. degree (DMU alumni take 10 courses for 22.0 credit hours). PPDPT 1607 must be taken during the student’s final didactic term.
PPDPT 1601, Business Management, 2.0 credit hours

PPDPT 1602, Individual and Family Aspects of Care, 2.0 credit hours

PPDPT 1603, Clinical Decision Making, 3.0 credit hours

PPDPT 1604, Health Promotion and Prevention, 3.0 credit hours

PPDPT 1606, Motor Control Theory and Analysis, 2.0 credit hours

PPDPT 1607, Clinical Applications, 3.0 credit hours

PPDPT 1609, Manual Therapy Interventions, 2.0 credit hours*

PPDPT 1612, Clinical Imaging, 1.5 credit hours

PPDPT 1613, Pharmacology, 1.5 credit hours

PPDPT 1614, Clinical Medicine Systems I, 2.0 credit hours

PPDPT 1615, Clinical Medicine Systems II, 2.0 credit hours

*The manual therapy interventions course, required for those who are not alumni of DMU, is the only course in the program that includes an optional face-to-face instructional component. The lab is typically scheduled on a weekend; additional information regarding the course can be found on the program’s curriculum webpage.

Curriculum Features

Course Descriptions

PPDPT 1601 Business Management: This course introduces students to health care administration and management principles. Topics include aspects of business planning, compliance and quality programs, and organizational and human resource concepts. Students develop an understanding of the role of manager/supervisor relative to the goals and objectives of a physical therapy practice or department. Supervision of personnel and ethical and legal issues associated with PT practice will be presented. Current topics in regulatory and reimbursement guidelines will be explored. (2.0 credit hours)

PPDPT 1602 Individual and Family Aspects of Care: Individual characteristics of the patient/client that need to be taken into consideration in the management of a patient/client’s care. Family and cultural dynamics are also explored in relation to their impact on the health and health care decisions of a patient/client. Another component of this course is the physical therapist’s role with respect to issues of violence and abuse. (2.0 credit hours)

PPDPT 1603 Clinical Decision Making: Presents models for clinical decision-making including the patient care management model as presented in the Guide to Physical Therapist Practice. Evidence-based practice and the critical evaluation of research related to health care practice is a component of this course. (3.0 credit hours)

PPDPT 1604 Health Promotion and Prevention: Concentrates on the health promotion and prevention needs of a diverse population. Content includes theories on wellness, health behavior models, motivational strategies and the provision of services by physical therapists that promote the health and quality of life of individuals and groups. Epidemiology is introduced for the purposes of planning health promotion and prevention services as well as the impact of nutrition on health. Standardized tests and measures, interpretation of data collected, and development of a plan of care related to health promotion and prevention are primary components of this course. (3.0 credit hours)

PPDPT 1606 Motor Control Theory and Analysis: Students investigate traditional and contemporary theories of motor control and their application to movement in this course. Opportunities to review current technology utilized in motion analysis is considered with regards to clinical applications. Kinetic and kinematic data from motion analysis devices are incorporated into movement analysis. Emerging evidence in motor control is discussed. (2.0 credit hours)

PPDPT 1607 Clinical Applications: In this culminating course, students select an individual capstone project and apply knowledge gained throughout the PPDPT program. Students demonstrate the efficient use of evidence-based resources and effective decision-making in developing the capstone project. Students use self-reflection to plan for professional development following program completion. (3.0 credit hours)

PPDPT 1609 Manual Therapy Interventions: This course investigates the use of manual therapy interventions in neuromusculoskeletal physical therapy patient management. The course will focus on evidence-based interventions encompassing all regions of the body and as applicable to diverse patient populations. Material will be presented using both online and on-campus
Participants will be asked to learn the basic concepts of manual therapy interventions and to demonstrate their knowledge via the completion of assignments, discussion board dialogue, and laboratory participation. The laboratory will be held on the Des Moines University campus over two days and will focus on psychomotor skills based on the online course content. Individuals unable to attend the laboratory may complete an optional assignment if recent laboratory or advanced training in manual therapy is demonstrated. (2.0 credit hours)

**PPDPT 1612 Clinical Imaging:** This course is organized into units covering the technical and interpretive aspects of diagnostic imaging/radiology results related to diagnoses commonly treated by physical therapists. The focus is on the musculoskeletal system including skeletal development and growth. The use of clinical decision rules/guidelines will be incorporated. Additional units address imaging associated with neurological, vascular and pulmonary disorders. (1.5 credit hours)

**PPDPT 1613 Pharmacology:** This course introduces the basic principles of pharmacodynamics and pharmacokinetics of various drug classes. These principles provide a foundation in understanding the action, adverse effects and clinical usefulness of key drug classes seen in the rehabilitation setting. Instruction combines the use of pharmacology readings and case-based scenarios to illustrate and highlight the relevance of agents to the practice of physical therapy. (1.5 credit hours)

**PPDPT 1614 Clinical Medicine Systems I:** This course addresses some of the underlying aspects of disease processes with an emphasis on differential diagnosis. The effect of immune, endocrine and metabolic disorders on the body's homeostasis will be a primary focus. An introduction to the role genetics plays in the development of disease and subsequent treatment is included. The use of data obtained from clinical lab and imaging studies in the screening process in order to determine appropriate plans of care is incorporated. Consideration will be given to psychosocial and spiritual beliefs influence on health and illness. This course provides a foundation for the subsequent Clinical Medicine Systems II course. (2.0 credit hours)

**PPDPT 1615 Clinical Medicine Systems II:** This course is the follow-up to Clinical Medicine Systems I. It addresses the pathophysiology and medical management of common conditions that occur in primary organ systems. Content will include etiology, epidemiology, tests and measures, and interventions related to the cardiopulmonary, gastrointestinal, renal, reproductive and integumentary systems. There will be a focus on understanding the human response to disease and the implications for the physical therapist’s management of patient care. (2.0 credit hours)

**Graduation Requirements**
To receive a Doctor of Physical Therapy degree, a student must satisfy the following:

1. Successful completion of all academic requirements:
   a. Pass all academic course work.
   b. Maintain a grade point average (GPA) of at least 2.0.
2. Satisfactory resolution of all financial obligations.
3. Approval for graduation by the program faculty, Dean and the Board of Trustees of the University following recommendation by the Academic Progress Committee. Academic performance and professional promise is evaluated and considered for graduation.

**Course Descriptions**

**ACLS 3202 Advanced Cardiac Life Support:** In this course, third-year students enhance their skills in treating adult victims of cardiac arrest or other cardiopulmonary emergencies, while earning their American Heart Association ACLS (AHA ACLS) for Healthcare Providers Course Completion Card. (0.5 credit hour)

**ANAT 1101A Gross Anatomy:** The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic anatomy. This course will include the anatomical relationships of the back, head, neck, thorax and abdomen. (4.0 credit hours)

**ANAT 1101B Gross Anatomy:** The gross anatomy course provides an in-depth study of the human body using cadaveric dissection. Additional emphasis is placed on developmental anatomy and normal radiographic
anatomy. This course will include the anatomical relationships of the pelvis, perineum, and the lower and upper limbs. (2.5 credit hours)

ANAT 1104 Neuroanatomy: The structural and functional organization of the central nervous system is presented through lectures and laboratory/computer demonstrations on parts of the brain and spinal cord. The course covers the role of the brain and spinal cord in sensory perception and movement of the human body, including organs and behavioral responses. Wherever possible, case studies and appropriate syndromes are also presented. (2.0 credit hours)

ANAT 2211 Lower Limb Anatomy: A comprehensive course in the functional anatomy of the lower limb. Podiatric medical students dissect and identify the detailed structures of the foot, leg and thigh in order to become expert in the structure and function of this region of the body. (3.0 credit hours)

BIOC 1102 Biochemistry and Molecular Genetics: An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (4.5 credit hours)

BIOC 1112 Biochemistry and Molecular Genetics: An introductory molecular description of biological structure and function. Normal metabolism and gene expression are given the major emphasis. Several common genetic diseases and metabolic disorders serve to contrast normal and perturbed human biochemistry, as well as demonstrate the clinical implications of human biochemistry. (5.0 credit hours)

BIOC 1122 Problem-Based-Learning (PBL) Biochemistry: This elective is an advanced medical biochemistry course that is offered as an enhancement to the traditional Biochemistry/Molecular Genetics course (BIOC 1102/1202). It is designed for those students with a background in biochemistry or those who are interested in going beyond the scope of the traditional course. Students who are intellectually inquisitive and those who are interactive by nature likely will benefit from and enjoy involvement in this course. The course utilizes a problem-based learning format focused on clinical case presentations of biochemical interest. The course employs a small group discussion format that demands active participation by all group members. The case study sessions provide a forum in which students develop problem-solving skills and achieve a deeper understanding of biochemical principles and processes as applied to clinical situations. In the sessions, the students play the dominant role in developing hypotheses, analyzing information and setting learning goals and objectives based on the information supplied in the case write-up. The role of the group facilitator in this scenario is not that of a director who leads the discussion, or as a source of information to be tapped by the group. Rather, the facilitator's role centers around keeping the discussion appropriately “on track,” drawing all members of the group into the discussion and ensuring that a sufficient depth of understanding is attained by the group. (1.0 credit hour)

BIOE 1120 Introduction to Medical Ethics: The course is designed to serve as an introduction to recognizing moral-ethical dilemmas in medicine and appropriately addressing them. Students explore basic ethical concepts, theories and principles, and the importance of morality, virtues and values. Developing moral reasoning skills is emphasized. Additionally, the interaction between the law and ethics and maintaining professional behavior and standards are introduced. Each student brings values and beliefs from his/her family, religion, culture, education and personal experience; during the course, students evaluate and augment their beliefs. (1.5 credit hours)

BIOE 2120 Medical Ethics II and Legal Topics in Clinical Medicine: This course is designed to assist students in understanding central issues of frequently encountered ethical-moral problems and the interrelationship between medical ethics and the law. Cases that have shaped medical ethics, as well as the more subtle ethical issues arising in practice, are discussed. Potential ethical-moral problems faced by students during clinical rotations also are explored. Emphasis is on the development of case-based ethical-moral problem-solving skills. At the completion of the course, students demonstrate their ability to apply ethical-moral decision-making in the context of a simulated patient encounter (SPAL). (2.0 credit hours)

CLPD 4220 Podiatric Medicine/Surgery Rotation: Fourth-year students are required to complete 24 weeks of podiatric medical/surgical clinical rotations. These are four-week supervised hospital based rotations designed to
provide students a clinical experience in podiatric medicine, pediatric radiology, pediatric surgery and biomechanics. The pediatric medicine rotation is selected by the student through the American Association of Colleges of Podiatric Medicine clerkship process. (24.0 credit hours)

**CLPD 4221 Core Rotation:** Fourth-year students complete a 12-week supervised hospital-based rotation designed to provide students equivalent didactic and clinical experience in podiatric medicine, pediatric radiology, pediatric surgery and biomechanics. The student will also complete two to four weeks of non-podiatric rotations determined by core facility resources and approved by the Associate Dean for Clinical Affairs. The core rotation is selected by the student through the Office for Clinical Affairs. (12.0 credit hours)

**CLPD 4222 Private Practice Rotation:** This four-week fourth-year supervised podiatric private practice rotation is designed to provide students a clinical experience in podiatric medicine with emphasis on aspects related to private practice such as federal and state regulations, exposure to insurance products, and practice management. (4.0 credits)

**CLPD 4224 Medicine Rotation:** Fourth-year students must complete a four-week rotation in family medicine, internal medicine or a medical specialty. The rotation is designed to expose students to the concepts and techniques of various medical specialties. Concepts include performing complete history and physical examinations, developing differential diagnosis lists and formulating appropriate treatment plans. (4.0 credits)

**DPT 1620 Clinical Applications – Health Promotion:** The Clinical Applications course series uses case scenarios to develop the student’s psychomotor and clinical decision making skills. This first Clinical Applications course centers on the ability of the practitioner to obtain the data needed from a client/patient interview to determine a course of action. Case topics focus on the screening tools used and program planning for the prevention and health promotion needs of the client. The integration of massage theory and practice and palpation are also major components of this course. Successful completion of the American Heart Association Basic Life Support for Healthcare Providers (CPR & AED) Program is required to pass this course. (1.5 credit hours)

**DPT 1621 Clinical Applications – Musculoskeletal Lower Quadrant:** The case scenarios used in this second course within the clinical applications series will develop the foundational skills needed for practice. The course includes cases to develop examination skills in goniometry, manual muscle testing, and sensory testing. Transfer training and the safe use of assistive gait devices are also included within the course content. The application of various biophysical agents is also a major component of this course. The determination of a diagnosis and prognosis for a variety of diverse client / patient problems are done via case presentations in a small group setting. Cases include client / patient with lower quadrant musculoskeletal disorders. The student will also be assigned lab time within a clinical setting to observe patient care. (2.0 credit hours)

**DPT 1640 Research Design and Statistics:** The need to make clinical decisions based on the application of evidence requires an understanding of the fundamentals of research methods and analysis. The course is the first in a series of two geared to providing a framework for the integration of evidence into clinical practice. Focus within this course is on basics of research design and implementation. The latter portion of this course focuses on statistical methods and their application in the health care literature. The procedures for meta-analysis will also be introduced. (2.0 credit hours)

**DPT 1641 Epidemiology and Evidence Based Practice:** This course focuses on the basic concept of epidemiology and biostatics to assist in making evidence based health care decisions. The health care provider is faced with a vast wealth of data that must be sifted within a short course of time. An understanding of data summaries, population descriptions, risk classification, predictive statistics and outcomes is critical. The application of research fundamentals into clinical practice is the center of this course. Using the framework of the World Health Organization's International Classification of Functioning, Disability and Health (ICF) model the participant will actively engage in the evaluation of available information to determine the course of care. (1.0 credit hour)

**DPT 1650 Foundational Sciences – Anatomy:** The Gross Anatomy course provides an in-depth study of the human body. One of the unique privileges in the anatomy course will be to dissect a human body. Special emphasis is placed on developmental anatomy and normal radiographic anatomy. Students will be expected to have a thorough
understanding of gross anatomy, neuroanatomy, select embryology, and radiographic anatomy of the human body. This course will also include clinical correlation labs which coincide with the area of the body being studied. (9.0 credit hours)

**DPT 1651 Foundational Sciences – Health Promotion:** This Foundational Sciences course addresses the underlying physiological issues related to health and well-being. The physiology of the musculoskeletal, cardiac, respiratory and immune systems is covered. The physiological responses to exercise for health are addressed. (4.0 credit hours)

**DPT 1652 Foundational Sciences – Musculoskeletal Lower Quadrant:** The focus of the Foundational Sciences in this term is introduction to general biomechanics, tissue mechanics, and biomechanics of the lower quadrant. This includes the lumbar spine, pelvis/sacrum and the lower extremity. Gait, locomotion and pharmacology are primary topics. Pain pathways and mechanisms are presented. (4.5 credit hours)

**DPT 1660 Patient Management – Health Promotion:** Implementation of the patient management model as outlined in the Guide to Physical Therapist Practice begins with this course. This course concentrates on the provision of services that promote the health and quality of life within diverse patient populations. Fundamentals of nutrition and nutritional issues related to clinical practice are also covered. (2.0 credit hours)

**DPT 1661 Patient Management – Musculoskeletal Lower Quadrant:** This is the second course in the patient management series. This course focuses on the management and care of patients with impairments in body function and structure, activity limitations or participation restrictions related to the lower quadrant. Principles of differential diagnosis are introduced. Fundamental handling skills are presented, including gait training, body mechanics, and positioning. Students are expected to make clinical decisions regarding patient intervention based on the evaluation of gathered data. Safe and efficient applications of procedural interventions specific to musculoskeletal system impairments are taught. This course also presents information related to the pharmacologic, medical, and surgical management of patients with musculoskeletal dysfunction. (8.0 credit hours)

**DPT 1680 Health Promotion and Prevention Practicum:** This two week practicum is designed for students to have opportunities to participate in the development, implementation, and assessment of community prevention, health promotion, fitness, and wellness programs for individuals, groups, and communities. Students gain experience to design and execute programs that promote optimal health throughout the lifespan by providing information or consultation on many aspects of health risks and disability. Students complete practicum experiences in a variety of settings from school systems, community and corporate wellness centers, hospital and clinic-based specialty services to non-profit organizations. (2.0 credit hours)

**DPT 1690 Professional Issues and Development 1:** This is the first course in a series of Professional Issues and Development courses. The initial portion of the course covers orientation to the Doctor of Physical Therapy Program and to the profession of physical therapy. The remainder of the course is designed to introduce the student to issues concerned with personal and professional behaviors. The primary focus will be on student growth and development. The prevention and health promotion needs of a diverse population are also core components of this course. Health care models and beliefs, motivational strategies, and educational theory are presented with a focus toward the needs of individual clients. Community resources and consultation services will be discussed. Scopes of practice issues are presented. Students begin the process of developing communication skills needed to establish a therapeutic relationship with their clients. (2.5 credit hours)

**DPT 1691 Professional Issues and Development 2:** The second course in the Professional Issues and Development series is designed to address some psychosocial and practice aspects related to clinical practice. Clinical learning and education will encompass theoretical and practical applications. They include patient/client education, health literacy concepts, documentation applications, and clinical education models. Lifespan issues related to health and wellness from birth to death, including physical, psychological, social, and economic aspects will be introduced. Life stages from prenatal, childhood, adolescence, adulthood, and late adulthood will be covered, with an emphasis on issues relevant to the practice of physical therapy. (1.0 credit hour)
DPT 2622A Clinical Applications – Musculoskeletal
Upper Quadrant 1: The case scenarios used in this third course within the clinical applications series will focus on the evaluation and interventions associated with head, cervical and thoracic spine dysfunction. The course includes cases that continue to develop examination skills. The determination of a diagnosis, prognosis and plan of care for a variety of diverse client / patient problems are done via case presentations. The application of various biophysical agents is also major component of this course. Students will be required to participate in a DMU sponsored community screening. (1.0 credit hours)

DPT 2622B Clinical Applications – Musculoskeletal
Upper Quadrant 2: This fourth course within the clinical applications series is a continuation of DPT 2622A and will focus on the evaluation and interventions associated with upper extremity dysfunction. The course includes cases that continue to develop examination and intervention skills. The determination of a diagnosis, prognosis and plan of care for a variety of diverse client / patient problems are done via case presentations. (0.5 credit hour)

DPT 2623 Clinical Applications – Neuromuscular Systems: This clinical applications course continues to concentrate on the acquisition of clinical decision making and psychomotor skills related to direct patient care. Cases include clients/patients with movement system issues related to neuromuscular or cardiovascular/pulmonary disorders. Cultural diversity, developmental considerations, and effects of aging are taken into account. Various patient and clinical labs will be conducted both on and off of the DMU campus. (2.5 credit hours)

DPT 2630 Clinical Internship 1: This ten week supervised clinical internship is designed to provide students with experiences in direct patient management of the patient with musculoskeletal disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. (10.0 credit hours)

DPT 2653A Foundational Sciences – Musculoskeletal
Upper Quadrant 1: The foundational sciences series continues with the biomechanics and function of the cervical and thoracic spine, and TMJ. Geriatrics and normal development of the newborn through year one are primary topics. The course also includes Part 1 of an evidence based practice group project, where the students are expected to propose, refine and perform literature searches in order to identify pertinent literature in support of a systematic review manuscript to be completed during the fall term. (2.5 credit hours)

DPT 2653B Foundational Sciences – Musculoskeletal
Upper Quadrant 2: The foundational sciences series continues with the biomechanics and function of the upper extremity. The course also includes an evidence based practice group project, where the students are expected to organize literature findings and synthesize evidence in the form of a systematic review manuscript. (1.0 credit hour)

DPT 2654 Foundational Sciences – Neuromuscular Systems: This foundational sciences course focuses on the neurosciences related to higher order functions. Topics covered include the special senses and the limbic system. It includes material on normal physical and cognitive development from birth to death. A significant amount of the course work involves participation in scholarly activities. (3.0 credit hours)

DPT 2662A Patient Management – Musculoskeletal
Upper Quadrant 1: This is the third course of the patient management series. This course focuses on the management and care of a client/patient with impairments, activity limitations and participation restrictions related to the head, and cervical/thoracic musculoskeletal systems. Principles of differential diagnosis are introduced. The student is expected to make clinical judgments regarding clients/patients intervention based on the evaluation of data gathered. The safe and efficient application of procedural interventions specific to musculoskeletal system impairments is covered. The course also includes content related to the pharmacologic, medical, and surgical management of the client/patient with musculoskeletal pathologies within these areas. Occupational medicine concepts are also covered within this course. (5.0 credit hours)

DPT 2662B Patient Management – Musculoskeletal
Upper Quadrant 2: This fourth course within the patient management series is a continuation of DPT 2662A. The focus is on the management and care of a client/patient with impairments, activity limitations and participation restrictions related to the upper extremity. The student is expected to make clinical judgments regarding
clients/patients intervention based on the evaluation of data gathered. The safe and efficient application of procedural interventions specific to musculoskeletal system impairments is covered. The course also includes content related to the pharmacologic, medical, and surgical management of the client/patient with upper extremity musculoskeletal pathologies. (3.0 credit hours)

**DPT 2663 Patient Management – Cardiopulmonary Systems:** The patient management of clients/patients with cardiovascular/pulmonary disorders is the key content of this course. The course will present course work related to the pharmacologic, medical, and surgical management of the client/patient with cardiovascular/pulmonary pathologies. Evaluation and intervention procedures within ICU and acute care environments will also be a focus. Cultural diversity, developmental considerations, and effects of aging are taken into account as the material of this course is presented. (3.0 credit hours)

**DPT 2664 Patient Management – Neuromuscular Systems:** The patient management of clients/patients with neuromuscular disorders is the key content of this course. The physical therapy and medical management of pediatric and geriatric patient is also a major component. Cultural diversity, developmental considerations, and effects of aging are taken into account as the material of this course is presented. The course will also present course work related to the pharmacologic, medical, and surgical management of the client/patient with neuromuscular pathologies. (7.0 credit hours)

**DPT 2692A Professional Issues and Development 3:** The professional issues and development series continues with content related to regulatory and reimbursement issues. (0.5 credit hour)

**DPT 2692B Professional Issues and Development 4:** The professional issues and development series continues with content related to ethical issues associated with client/patient care. Emphasis will be placed on ethical considerations related to direct patient care and patient rights. (1.0 credit hour)

**DPT 2693 Professional Issues and Development 5:** The fifth course in the Professional Issues and Development series covers a wide range of topics. Information is presented specific to employer-employee relations such as recruitment and retention practices, job descriptions, performance appraisals, development of a professional resume, and job interviewing strategies. Practice management topics of best practice, history of health care, and case management are also covered. Additional material related to governmental and advocacy factors which influence the current and future delivery of health care and the implications for physical therapy practice are presented. Students are introduced to current professional topics by participation in a Mock House of Delegates. (2.5 credit hours)

**DPT 3610 Civic Engagement:** The purpose of this civic engagement course is to encourage the development of physical therapists as socially responsible professionals with greater awareness of community resources. The reflective practitioner will internalize an appreciation for the value of service. The experiences that are associated with this course are varied. Service in three categories is required a) to the Community, b) to the Profession, and c) to the University. The design of an individual students plan should reflect a desire to move beyond the comfort zone. Projects involving underserviced or diverse populations are encouraged. Equally, active participation and taking leadership roles with University, professional or community organizations is also noteworthy. “The Science of Healing - The Art of Caring” should be more than just a tagline. (1.0 credit hour)

**DPT 3631 Clinical Internship 2:** This ten week supervised clinical internship is designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective requirement during this ten week internship. (10.0 credit hours)

**DPT 3632 Clinical Internship 3:** The final clinical experiences include two eight-week clinical internships. These internships are designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective
requirement during one of these eight week internships. (8.0 credit hours)

DPT 3633 Clinical Internship 4: The final clinical experiences include two eight-week clinical internships. These internships are designed to provide students with experiences in direct patient management of the patient with cardiopulmonary (acute care), musculoskeletal, and/or neuromuscular disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical internship may vary by student and facility and could range from specialty clinics to general hospitals. Students may fulfill an elective requirement during one of these eight week internships. (8.0 credit hours)

DPT 3670 Practice Topics: Topics within this course include women’s health, pain management, and integumentary disorders. Clinical medicine topics cover the renal, gastrointestinal, endocrine systems and infectious disease. Complimentary therapies such as yoga, tai chi, cranial sacral therapy, and myofascial release are introduced. Additional therapeutic exercise strategies will also be included. Material will be covered by using traditional lab and lecture presentations as well as case based learning with an emphasis on clinical decision making in patient management and efficient use of resources. Successful completion of the American Heart Association Basic Life Support for Healthcare Providers (CPR & AED) program is required to pass this course. (10.0 credit hours)

DPT 3694 Professional Issues and Development 6: This is the final course in the Professional Issues and Development series. Students will be exposed to business development and skills needed to expand or start up a physical therapy practice. Management and compliance programs as well as legal aspects of health care as related to the delivery of physical therapy services are also addressed. Other topics related to clinical reasoning, career development, cultural diversity, and professional development are discussed. (3.5 credit hours)

HIST 1106 Medical Cell and Tissue Biology: A comprehensive study of human cell biology, basic tissues and organ systems (e.g., cardiovascular, gastrointestinal, integumentary and lymphoid). Wherever possible, the study of histology is translated to clinical relevance. The course consists of regularly scheduled lectures, self-directed laboratory experiences, and collaborative learning exercises. (3.0 credit hours)

HLTH 1107A Clinical Medicine: This course introduces the student to interviewing, history-taking and physical examination skills. Practical laboratory sessions include experiences in obtaining focused histories and performing physical examinations with emphasis on proper use of diagnostic equipment and techniques. For example, the student will learn to perform physical examinations of the head and neck, thorax and lungs, breasts, axillae, and abdomen. The Standardized Performance Assessment Laboratory (SPAL) is utilized to provide opportunities for evaluating clinical skills in a realistic setting with standardized patients. (2.0 credit hours)

HLTH 1107B Clinical Medicine: This course introduces the student to interviewing, history-taking and physical examination skills. Practical laboratory sessions include experiences in obtaining focused histories and performing physical examinations with emphasis on proper use of diagnostic equipment and techniques. For example, the student will learn to perform physical examinations of the male and female genitalia, anus, rectum, and prostate, skin, nails, and hair, foot, peripheral vascular system, musculoskeletal system and nervous system. Additionally, the student will be exposed to the physical examination of pediatric, pregnant, and elderly patients. The Standardized Performance Assessment Laboratory (SPAL) is utilized to provide opportunities for evaluating clinical skills in a realistic setting with standardized patients. (1.5 credit hours)

HLTH 2104 Ophthalmology: This course covers the fundamentals of the ocular examination for the primary care physician. The student should be able to diagnose and manage, or refer, the most commonly seen ocular disorders including acute visual loss, chronic visual loss, ocular and orbital injuries, amblyopia and strabismus, red eye, neuro-ophthalmologic disorders and ocular manifestations of systemic disease. (1.0 credit hour)

HLTH 2105 Specialty Medicine: The clinical specialty areas of ears, nose, and throat (ENT), dermatology and allergy, and rheumatology and orthopedics constitute the Specialty Medicine course. For the ENT block, the primary goal is to provide the student with a broad overview of the conditions and diseases affecting the ears, nose, sinuses, mouth, larynx, and neck. This block will also introduce the student to the diagnostic evaluation and treatment of these
conditions. The dermatology and allergy block is an introduction to clinical dermatology, including a review of basic terms, anatomy, pathology, diagnosing, and treatment/management. Both benign and malignant skin lesions are reviewed, as well as viral, bacterial, and systemic causes of dermatological conditions. A review is also given on burn therapy and wound management. Lastly, the rheumatology and orthopedics block will provide an extensive comprehensive review of the musculoskeletal system, including the diagnosis and management of musculoskeletal disorders and injuries. (3.5 credit hours)

**HMNTS 1111 Introduction to the History of Medicine:**
Presented in a lecture format at the beginning of the first year, this course deals with the broad spectrum of medicine and healing. Course work introduces the history of medicine from its earliest practices to the evolution of the osteopathic medical profession during the 19th and 20th centuries. The development of osteopathic medicine through the thought and practice of Andrew Taylor Still is emphasized. (1.0 credit hour)

**INST 2003 Cranial Nerves – A Case-Based Approach:**
This elective neuroanatomy course is designed to provide an understanding of the structure and function of the cranial nerves and the main neurological deficits resulting from cranial nerve lesions through clinical case discussions. It is assumed that the student taking this course will have a reasonable working knowledge of the structure and function of the cranial nerves. This is not a review course, but is intended to serve as a supplement to the DO-DPM Neuroanatomy course, DPT Neuroanatomy course and PA Neurologic System. (1.0 credit hour)

**INST 2005 Medicine and the Arts:** This course is designed to explore the intersections between the medical world and the arts. Intended for medical students and allied professionals with an interest in literature, visual arts, drama, television, and film, this course will deal with the rich legacy of human creativity as it relates to medicine and the society of humankind. The course is presented in a seminar format, providing extensive opportunities for discussion of many of the diverse and thought-provoking issues encompassed in modern health care. Elements of the course include completion of assigned readings, directed reviews of selected works, class discussion and participation. (1.0 credit hour)

**INST 2017 Spiritual/Religious Issues Elective:** This elective is designed to facilitate greater comfort, confidence and competence in exploring and discussing difficult existential issues of life with patients and colleagues. Many of these have religious and spiritual dimensions, and all are pertinent to sensitive and effective patient care. Topics include recognizing and responding to spiritual distress; the spiritual challenge of illness; responding to questions of meaning; models of spiritual assessment; understanding and responding to the effects of trauma and evil; lessons learned from those wounded by war; elements of healing learned from indigenous cultures; and caring for the patient, family and the body at the end of life. (1.0 credit hour)

**INST 2020 Beginning Medical Spanish:** Introduces the student to basic Spanish vocabulary, Spanish medical vocabulary, comprehension and sentence structure. Intended for students who have little or no proficiency in conversational Spanish. (1.0 credit hour)

**INST 2021 Dying in America: Palliative and End-of-Life Care:** This elective course is based upon the Education for Physicians on End-of-Life Care (EPEC) curriculum with an emphasis on selected components of the curriculum and incorporation of the humanities and the arts into the elective. This curriculum was developed for the medical profession in recognition that end-of-life care (ELC) has been neglected in the past. The EPEC curriculum seeks to provide health care professionals with skills and tools to assist them in providing competent and compassionate ELC. Competence in providing excellent ELC can ameliorate, but not eliminate, the fear, negative images and avoidance responses from individuals, including health care professionals, when confronted with their own death or the death of those who seek their care. This is especially true for physicians who have traditionally seen death as a failure of care. (1.0 credit hour)

**INST 2023 Intermediate Medical Spanish:** The purpose of this course is to teach communication with Spanish-speaking patients in order to form strong clinician-patient rapport. Students will learn a standardized universal Spanish that also includes many words and expressions that take on different meanings in different countries and regions. Latino patients will come from a variety of countries, education levels, socio-economic backgrounds and origins (whether urban or rural areas). This class will address some of those differences. (1.0 credit hour)
INST 2024 Animal-Assisted Therapy and the Use of Service Animals: The goal of this course is to acquaint future health care professionals with the wide variety of ways animals are used in animal-assisted activities, animal-assisted therapy, and as service animals in both physical and psychological support roles. The students will, through outside reading, class demonstrations, discussion, etc., obtain a deeper understanding of the value and ethics of using an animal as part of therapy. The course will meet for six or seven two-hour on-campus sessions and make an off-campus trip to a hippotherapy center. (1.0 credit hour)

INST 2026 Problem-Based Anatomy: The problem-based anatomy course is designed for students who desire a greater appreciation of the clinical relevance of anatomy and will be of educational utility to the student preparing for board examinations. The course will utilize lecture and discussion to guide students through selected clinical vignettes from the text, Problem-Based Anatomy. Each clinical vignette provides an educational framework in which the student can apply his or her anatomical knowledge to clinical situations. Another value-added attribute of the course is its integrated approach to the field of anatomy. Therefore, wherever appropriate the clinical vignettes will explore the various subdisciplines of anatomy. These include anatomic pathology, cell biology, embryology, gross anatomy, histology, neuroanatomy and radiologic anatomy. (1.0 credit hour)

INST 2027 Forty-hour Cranial Course: This forty-hour cranial course, sanctioned by the Cranial Academy, encompasses twenty hours each of lectures and labs. Upon completion, the student will have an understanding of the Cranial Concept and be able to evaluate and treat common cranial dysfunctions. Student will also be allowed to submit an application for membership in the Cranial Academy. (2.0 credit hours)

INST 2030 Reproductive Health Choices: Offered in partnership with Planned Parenthood of the Heartland as education and training for possible internships. Training will cover reproductive health and available reproduction options. Trainers from Planned Parenthood, under the supervision of the coordinator, will present the course material. (1.0 credit hour)

INST 2031 Human Development: An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

INST 2032 Healthy Food Preparation: Nutritional Survival 101: This course is designed to introduce the student to some basic methods for preparing meals that incorporate ingredients associated with health risk reduction. The emphasis will be on preparing healthy, tasty and economical dishes as simply as possible, utilizing regional cuisines from around the world. All dishes prepared will be eaten by participants. Students will be encouraged to share and demonstrate any cooking techniques they have acquired. (0.5 credit hour)

INST 2036A Rural Medicine Educational Pathway: This course, offered in the fall, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour)

INST 2036B Rural Medicine Educational Pathway: This course, offered in the spring, is designed to promote and foster interprofessional student interest in rural medicine. The course is mandatory for all recipients of a DMU Rural Health Scholarship. Scholarship students must attend all sessions to receive credit for this course on their DMU transcript and to remain eligible for an ongoing scholarship. Apply through college faculty. (1.0 credit hour) Prerequisite: INST 2036A

INST 2038 Research in Physical Therapy: This course is designed to introduce students to conducting research in Physical Therapy. Students must have a faculty mentor agree to supervise them prior to enrolling in the course. Students who choose a research elective are generally expected to take a total of four research electives with their faculty mentor over their course of study in the Doctor of Physical Therapy program. (1.0 credit hour)

INST 2039 Introductory Figure Drawing: The ability to observe and interpret what is seen is critical for practicing clinicians. Over the past decade, several educational studies in this country and elsewhere have demonstrated that courses to train the eyes promote observational skills that can result in improved clinical and diagnostic acumen. This elective is an introduction to seeing and drawing the surface anatomy of the human body. It is intended as a way
for DMU students to increase their ability to see clearly as a step toward excellence in clinical work. This course is therefore designed to promote a clearer understanding of the observed human form and to explore the basic factors of drawing the nude: name, structure, anatomy, design, and expression. Emphasis will be placed on accurate visualization and measurements of the human body and translation of those observations into imagery. (2.0 credit hours)

**INST 2042 Book Club on Disability Awareness:** On-line and student-directed, this course for Physical Therapy students will span 10 weeks. Small groups will select an autobiography or biography of an individual with physical disability and discuss through a dialogue on the learning management system. The purpose of the course is to enhance the student’s understanding and perception of how individuals with disability recover and return to life tasks and reflect on how this understanding impacts their relationship with patients and care givers. Student groups will set their timelines and lead the group discussions. A pre and post-course survey/evaluation are required. (1.0 credit hour)

**INST 2043 Interviewing and Communication Skills for Enhanced Patient Care:** Intro to doctor-patient communication and assessment skills. Students will be introduced to theories and methods contributing to enhanced patient comfort and cooperation, and the promotion of positive health and lifestyle change. Role-playing. (1.0 credit hour)

**INST 2044 The Healer’s Art:** The Healer’s Art addresses the growing loss of meaning and commitment experienced by physicians in today’s stressful health care system. Prospective physicians arrive in medical school with high ideals and altruism, but many of them report that during residency and later practice their high principles seem to atrophy and fall away. The rate of physician dropout is climbing, owing to many external and internal pressures that wear away at the ideals and goals of many. The Healer’s Art is a process-based course that enables students and faculty to come together as a sharing community that helps both develop the ability to find meaning in their chosen career, throughout their lives. (1.0 credit hour)

**INST 2048 Research in Podiatric Medicine and Surgery:** This course is primarily designed for second and third year CPMS students who are interested in conducting research in podiatric medicine and surgery. Must have faculty mentor agree to supervise to allow registration. (1.0 credit hour)

**INST 2055 Developing Leadership in Orthopaedic Manual Physical Therapy:** This elective is designed for students considering continuing their education in orthopaedic manual physical therapy beyond entry-level through residency and/or fellowship training. Students will be mentored in a small group environment to learn and refine hands-on skills in thrust and non-thrust manipulation while participating in leadership activities akin to those required of residents and fellows. Leadership activities will include developing an evidence-based newsletter for patients or physicians; providing an evidence-based manual therapy in-service or contributing to an online evidence-based physical therapy resource; and serving as a peer reviewer for classmates’ evidence-based manual therapy projects. (1.0 credit hour)

**INST 2058 Stroke Camp:** The course will allow third-year Physical Therapy students to provide intensive physical therapy to a small group of community dwelling individuals, post-stroke. The small group setting will allow prompt feedback to students regarding their skill set from supervising therapists. While the focus will be on physical therapy, given the team aspect of rehab care, incorporation of occupational and speech therapy and therapeutic recreation will be considered. (2.0 credit hours)

**INST 2063A Military Elective:** This elective, offering in the fall, facilitates military professional development during medical school education. In addition to standard medical education, this elective can help prepare Medical Corps Officers for their military service. Our COM is already known in the military community to produce excellent physicians. Unfortunately, a stigma exists, with partial truth, that the typical military physician does not come prepared with adequate leadership skills and working military knowledge. With the help of this military elective, military students will leave DMU with the ability to heal and lead America’s service members. (0.5 credit hour)

**INST 2063B Military Elective:** This elective, offered in the spring, facilitates military professional development during medical school education. In addition to standard medical education, this elective can help prepare Medical Corps Officers for their military service. Our COM is already known in the military community to produce
excellent physicians. Unfortunately, a stigma exists, with partial truth, that the typical military physician does not come prepared with adequate leadership skills and working military knowledge. With the help of this military elective, military students will leave DMU with the ability to heal and lead America’s service members. (0.5 credit hour) Prerequisite: INST 2063A

INST 2065 Coronary Circulation: Understanding the burden of coronary arterial disease requires contextual knowledge of the anatomy and physiology of the coronary circulation. Anatomically, this course will cover general concepts of blood vessel formation and remodeling, development of coronary vessels, the anatomy of the coronary vessels along with anomalies, and collateral circulation. Physiologically, methods of measuring coronary blood flow and its regulation and distribution will be considered. Lastly, anatomic and physiologic adaptations related to aging, exercise, and cardiac hypertrophy will be considered. (1.0 credit hour) Prerequisites: ANAT 1101A, ANAT 1101B, PHYS 1116

INST 2066 Foundational Manual Skills: Peer Teaching: This course is a platform by which the participant will continue to develop competence in performing fundamental manual skills related to the practice of physical therapy. The course uses a learn-teach-learn model of instruction. The student will be asked to learn a skill, then teach that skill to others, and then critically analyze their performance in order to improve. The students will be asked to assist in teaching muscle performance and joint motion measurement, abdominal exam, head and neck exam, and sensory testing. Each student will be assigned a small group of first year PT students (four – eight) as a teaching/learning team. (1.0 credit hour)

INST 2067 Interprofessional Simulation in Emergency Situations: This course brings together two important aspects of training future Doctoral Physical Therapy (DPT) students. The first aspect is to provide an opportunity for DPT and Nursing students to collaborate with each other in a simulated healthcare experience focused on emergency situations. Through this collaboration, DPT students will be able to refine communication skills with nursing students and patient simulators. DPT students will be able to learn from, with and about each other with nursing, in simulated emergency situations. In addition, this activity provides an opportunity for the DPT students to work with high fidelity simulators to refine skills. (1.0 credit hour)

INST 2070 Literature and Narrative Medicine: This course invites students to grow in their understanding of illness and healing through a survey of literature and narrative medicine. Utilizing the lens of patient, family care giver, physician healer and others who care for the ill and dying among us, students are encouraged to be open to increased self-awareness and to develop both compassion and resilience for their life of service in medicine. The eight two-hour sessions will be utilized to pursue the goal of increased self-awareness and broad-based cultural humility as it relates to illness and suffering and health and healing. (1.0 credit hour)

INST 2071 Community Health Immersion Project (CHIP): Through community experiences, this course examines cultural competencies and the barriers faced by medically underserved communities in the Des Moines area. (1.0 credit hour)

INST 2072 Tools for Teaching: This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods, execution of adult learning principles, and assessing student learning outcomes. (1.0 credit hour)

INST 2073A Global Health Learning Collaborative: The Global Health Learning Collaborative (GHLC) is an elective aimed at introducing students to the key concepts and principles of global health. Special focus will be given to socioeconomic, political and cultural forces that converge to shape health care systems globally. The global burden of disease and challenges for practicing health care professionals will also be addressed in order to better prepare students for work abroad. The goal of this course is to encourage students to critically assess global health efforts & develop innovative and pragmatic solutions to combat the health challenges seen worldwide. In this manner, GHLC hopes to inspire the next generation of global citizens from Des Moines University. (1.0 credit hour)

INST 2073B Global Health Learning Collaborative: A selected group of participants will have the opportunity to apply the theories learned in the classroom to action on the ground during a week-long medical service trip. (1.0 credit hour) Prerequisite: INST 2073A
**INST 2076 From Stage to Clinic: Improv Skills in a Health Care Setting:** Through the experiential study of improv theater, students will use a fun, innovative and rejuvenating medium to develop their skill set as providers. Improv challenges students to break out of their shells and be humbly fearless. As students are placed in high-stress situations throughout their clinical years and careers, it is important that they have the confidence to speak to superiors and contribute to teams. Similar to SIM lab, students will have the opportunity to make mistakes and try new techniques in a safe and low-risk environment. (0.5 credit hour)

**INST 2077 Evolutionary Medicine and Health:** This elective is designed to introduce students to evolutionary theory and the evolutionary mechanisms underlying the origins of various human diseases and disorders and will also examine the benefits and costs of some of the suggested approaches toward treatment. (1.0 credit hour)

**INST 2078A Practical Foundations for Medical Education:** This course will provide students with the opportunity to explore the fundamentals of education including learning theory, assessment, lesson design, and self-evaluation through group discussion and reflective writing. Practice developing and implementing your own engaging lessons utilizing active learning approaches. Understand and be able to justify instructional choices. Prepare yourself for a career in academia by developing a robust teaching philosophy statement and the skills and knowledge necessary to continually improve your teaching practice. (1.5 credit hours)

**INST 2078B Applications of Practical Foundations for Medical Education:** This course will provide students with the opportunity to apply the concepts they learned in the pre-requisite course, Practical Foundations for Medical Education (INST 2078A). Students will complete lesson objective writing, design and implement educational experiences, and create student learning assessment tools. Students will develop and direct tutorial sessions for their peers in a manner congruent with their academic program’s curriculum. (1.0 credit hours) **Prerequisite:** INST 2078A

**INST 2079 Yoga as Medicine:** This course explores the concept of integrative medicine by using yoga as a healing art. The biopsychosocial model of patient care will be incorporated in studying yoga’s neurophysiology and biomechanics and its Eastern traditions of meditation, asana, and pranayama. Experiential knowledge is key in the understanding and practice of yoga; therefore, participants will be required to practice asana (physical postures), meditation, and pranayama (yogic breathing) throughout the course. No experience in yoga is necessary and the course is open to all students, face-to-face students, student in online programs, and students on clinical rotations and internships as well as faculty and staff. (1.0 credit hour)

**LAB 2115 Basic Surgical and Medical Skills:** Under the direction of surgical residents and surgical nurses, second-year medical students learn basic aseptic technique, clinical and operative skills. Skills emphasis includes suturing and knot tying, foley catheter and nasogastric tube insertion, peripheral vascular access, venous cut-down and catheterization, cricothyroidotomy, chest tube insertion, arterial puncture and central line placement. Student application of new psychomotor skills is provided through hands-on procedure and computer simulation labs. (1.0 credit hour)

**MBS 1B02 Intro to Research:** The course is designed to provide students with an introduction to research opportunities and laboratory safety procedures/policies at Des Moines University. Students will complete a survey of research at Des Moines University, biomedical safety training and two five-week laboratory rotations. This course is designed to prepare students to work safely in a research environment and identify a thesis mentor. (3.0 credit hours)

**MBS 1B03 Responsible Conduct Biomedical Research:** The course will be presented in a conference style setting with a small group of learners along with online learning and assessment. Formal presentation of foundational material will be presented with discussion of the material presented and presentation of examples. Each subject area raises ethical considerations and learners will be provided with a scenario. The learners will review the scenario and offer brief comments on the ethical issue during course meetings. Writing assignments will include a writing portion of a Patient Consent form or formatted abstract, each to be completed outside of class. Completion of an online class covering Human Subjects Research and Responsible conduct of research, and biosafety will be required to receive credit. The overarching goal of this course will be to allow the learner to understand the basic principles of biomedical and clinical research and the ethical application of these
principles. The learner will be prepared to take the first steps in identifying a problem and creating a credible research design to address it. For medical students, the course will enable the student to enter an internship or residency program with sufficient background to confidently approach the assignments for conducting research that are increasingly required in many training programs. (1.0 credit hour)

**MBS 1B04A Cell Biology I:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level biochemistry course is highly recommended. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: general laboratory techniques, genetics, molecular biology, transmembrane transport, and vesicular trafficking. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, and Pharmacology). (1.5 credit hours).

**MBS 1B04B Cell Biology II:** The course is designed to provide students with a foundational understanding of key concepts in the area of cell biology. Prior to enrollment in the course, successful completion of an upper level biochemistry course is highly recommended and successful completion of Cell Biology I. This graduate level course is designed to explore the area of cell biology through presentations by content experts, the required text book, and primary literature. The primary content areas covered will include: cell signaling, moving molecules, tissue structure, cell death, and cell division. The course will serve as an important foundation in the biomedical sciences that will support students as they advance in their studies to their chosen area of specialty (Biochemistry, Microbiology, Physiology, and Pharmacology). (1.5 credit hours).

**MBS 1B05 Special Topics in Pharmacology:** An advanced class in pharmacology using a combination of lectures and primary literature to develop a sense of history, depth and emerging concepts in the field. (1.5 credit hours).  
*Prerequisite: Consent of Instructor*

**MBS 1B06 Intro to Biostatistics:** This is an introductory course that exposes the student to the use of statistical techniques for research data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and the use of multivariate statistical techniques. (2.0 credit hours)

**MBS 1B11 Special Topics in Microbiology and Immunology:** An advanced class in microbiology and immunology using a combination of lectures and primary literature to develop a sense of history, depth and emerging concepts in the field. (3.5 credit hours).
*Prerequisite: Consent of Instructor*

**MBS 2B04 Presentation of Scientific Information:** This is a one-hour-per-week class where students learn the basis of scientific presentation and practice these concepts by participating in journal club presentations. (1.0 credit hour)

**MBS 2B05 Scientific Communications:** This is a one-hour class in which students will present their scientific data to the University during the Friday Seminar Series. In addition, students will attend all of the Friday Seminar Series lectures. (1.0 credit hour)

**MBS 2B10 Research (Microbiology or Physiology/Pharmacology Emphasis):** Bench research under the supervision of a thesis advisor and thesis committee. (17.5 credit hours).  
*Prerequisite: Thesis committee approval*

**MBS 2B12 Thesis:** All MSBS students are required to complete a Thesis. The thesis is the culmination of the student’s research as well as their knowledge developed over their entire program. (7.0 credit hours)

**MICR 1103 Microbiology and Immunology:** Basic principles and clinical relevance of immune mechanisms and fundamentals of host-pathogen interactions are presented. In addition, the course offers an introduction to the various subdisciplines of microbiology, with emphasis on facts and principles pertinent to the broad requirements for understanding infectious diseases. Bacterial, mycotic, parasitic and viral pathogens are considered, with major emphasis on clinical presentation and pathogenic mechanisms. Laboratory integration focuses on the common diagnostic modalities pertinent to the various infectious agents. (6.0 credit hours)

**MHA 619 Health Care Human Relations Management:** This course provides an overview of the nature,
organization, and function of human resources in health care organizations. Emphasis is placed on applications to real-world problems, rather than viewing human resources as an isolated function. This course begins with the Professional Development Seminar I (MHA 801) course and together make up Executive Residency I. Though the course begins during the Executive Residency it will continue online through the end of the term. (3.0 credit hours). Corequisite: MHA 801

MHA 621 Overview of the U.S. Health System: This course is a comprehensive analysis of the health care delivery system including the interface with the public health system and public health services. Components studied include members of the health care team and their roles; the solo practitioner; group practice; multi-specialty; HMOs; remote-site hospital clinics; tax-supported ambulatory health care facilities; home health care; mobile health care; mental health care; other inpatient and domiciliary care facilities; long-term care facilities; local, state and federal direct care and regulatory agencies; nonprofit organization promoting health and/or providing services; health planning and coordinating bodies at various levels; accrediting agencies for health care facilities and personnel; organizations representing health care personnel and facilities; organizations representing health care consumers; and health care services financing and reimbursement in public and private systems. Formal, informal, financial, and political relationships between and among these components are discussed. Additional topics include problems and potential solutions related to health services delivery and health care reform; consideration of differences between the U.S. system and the systems in other regions of the world; and trends in issues, policy, financing, regulation, and technology in U.S. health care. (3.0 credit hours)

MHA 625 Health Care Financial Management I: This course provides a basic understanding of health services financial management with emphasis on the not-for-profit entity. We will begin with elementary accounting concepts and then focus on discounted cash flow analysis, risk, financial statements, capital investments, debt and equity financing, capital budgeting and health care reimbursement models. The course blends accounting and finance concepts to enhance the health care manager’s decision-making skills using accounting and finance theories, principles, concepts and techniques most important to managers in the health care industry. (3.0 credit hours). Prerequisites: MPH 620, MPH 621

MHA 626 Organizational Behavior and Leadership Theory: This course will provide a broad introduction to the theory, structure, and function of organizations, and the behavior of working in people in them. The primary purpose of the course will be to equip students with an understanding of organizational theory and related practical techniques for managing effectively in complex health care environments. (3.0 credit hours)

MHA 627 Legal and Ethics I: Clinical Decision Making: Health law and bioethics are broad, dynamic and interrelated fields. This course will address major legal, ethical, and policy aspects of controversies in clinical health care delivery. Students will gain a working knowledge about how law and ethics can be applied to real-world health care issues. (2.0 credit hours)

MHA 628 Legal and Ethics II: The Business of Health Care: This course provides an overview of legal and ethical issues facing the health care industry. Students will gain a working knowledge about the influence that laws, policies and ethics have on the regulation, structure, and financing of the American health care system. Select topics include scope of practice, licensure and regulation of health care providers; common forms and structures of health care enterprises; and the function of licensure, accreditation and inspection in quality assurance for health facilities. (2.0 credit hours). Prerequisite: MHA 627

MHA 629 Organizational Development I: Systems Improvement: This course will incorporate a survey of contemporary organizational theory focusing on concepts relevant to health service organizations and systems. Emphasizing organizational environment, goals, strategy, structure and processes. The course provides a comprehensive overview of the key factors affecting an organization and exposes the student to theories that suggest effective organizational responses to such influences and changes. (3.0 credit hours)

MHA 630 Health Care Financial Management II: This course builds on the foundational learning from Health Care Financial Management I. We will shift our focus to for-profit entities within the health care sector. The course goes into greater depth on discounted cash flow analysis, risk, financial performance evaluation, capital investments, capital budgeting, debt and equity financing. A key objective of this class is to develop the student’s ability to
engage in long-term financial forecasting and planning. Students will complete a comprehensive financial forecast as their final project for this field of study. (3.0 credit hours). Prerequisite: MHA 625

**MHA 631 Health Information Management:** This course prepares students practicing in the health care industry to effectively identify, use and manage health information technologies. Specific topics include an introduction to technologies and information systems supporting health care organizations; technology security; regulatory and compliance issues; system acquisition, implementation and support; health information exchange; alignment of technology initiatives; strategic planning; and assessing value in health information technology. (3.0 credit hours)

**MHA 633 Population Health and Managerial Epidemiology:** This course is a demonstrated application of principles and tools of epidemiology to the health care management decision-making process. It requires the student to apply skills learned in Block I and II courses with an application of statistics testing and financial models. The course will challenge the students to combine traditional public health models with contemporary theories of management. The students will demonstrate how health care leaders can incorporate the practice of epidemiology into complex management functions. The course structure includes an initial, reading-intense introduction to epidemiological principles, followed by a four-week, self-guided research, and concludes with a six-week structured case analysis based on the student derived research. This course is preparatory for Block III courses, sets the stage for case study analysis and builds a potential model for the student’s use in the Field Based Learning experience. (2.0 credit hours)

**MHA 642 Long-Term Care Internship:** The course is a field experience in which the student rotates throughout the nursing facility’s (NF’s) departments and functional areas to develop an intuitive feel for organizational life inside a nursing facility. This course serves as an alternative to MHA 749 Field Based Learning. The hours spent in this internship must adhere to the practicum requirements set forth in the Iowa Administrative Code regarding nursing home administration practicums. Students outside the state of Iowa are expected to learn the requirements for licensure within their state and provide a copy for the course faculty to review.

The LTC Internship is meant to provide the student with hands-on experience in a long-term care setting that is appropriate for the student’s growth and learning. This internship must be at least 400 hours and be guided under the direction of a qualified licensed nursing home administrator. The student must propose the internship experience to the preceptor and course faculty for review and approval. Once approval is provided, the course faculty will request that the student be registered for the course. Students successfully completing the long-term care internship (along with the balance of their MHA degree) should meet the state of Iowa practicum requirements to sit for the examination for licensure as a nursing home administrator.

**IMPORTANT NOTE:** Long-term care licensure in Iowa is regulated by the state. It is the sole responsibility of the student to assure and verify he/she has met the legal requirements for certification. Program faculty will assist with the requirements through the offering of the internship course (i.e., monitoring approved hours, verification of preceptor qualifications, providing an opportunity to reflect on the overall experience, etc.), but final responsibility for meeting all state, national or other licensure requirements rests with the student. (3.0 credit hours)

**MHA 644 Health Care Economics and Policy:** An introduction to the theoretical foundations of health care economics and its application to the health care industry. Understand how economic trends can impact a wide range of health care issues such as markets, payment systems, and policy. (3.0 credit hours)

**MHA 646 Strategic Marketing and Communications:** This course is designed to build innovative, customer-centered, thinking within the future leaders of the health care industry. This is accomplished with an introduction to the role of strategic decision-making through the core principles of marketing (the four P’s). Students will also experience basic database management, the conduct of an internal and external environmental analysis, primary and secondary data gathering and interpretation and creation of a marketing plan to meet an unsatisfied market need or build volume for a health care product or service. Finally, the role of corporate communication will be interwoven throughout the course as it supports marketing success. (2.0 credit hours)

**MHA 648 Organizational Development II:** Process Development: This course is about operations
management and the strategic implementation of programs, techniques and tools for reducing cost and improving quality in health organizations. It covers the basics of operations management and explains how operation and process improvement relates to health care trends. In addition, this course introduces the theories and tools related to organizational and process improvement. (3.0 credit hours).  

Prerequisite: MHA 629

MHA 650 Health Care Statistics and Research: This is an introductory course that exposes the student to the use of statistical techniques for health care data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and introduction to the use of multivariate statistical techniques. Students will learn to apply statistical techniques for decision-making and/or research data analysis. (3.0 credit hours)

MHA 742 Strategy Formulation and Implementation: Having an effective strategy is widely seen as essential for organizational success. However, in practice, defining exactly what constitutes a "strategy" can prove surprisingly difficult. Indeed, the academic literature on strategy creation and implementation might be characterized as complex, confusing, and often directly contradictory. This course attempts to clarify and cut through these contradictions. We will examine the nature of strategy, what it is (and isn’t) and how one actually comes to develop an effective business strategy. You will be exposed to 10 leading “schools” or ways of thinking about strategy, and we will review the evidence for and against each methodology. You will also learn the distinction between strategic analysis and the act of strategy formulation. In the later part of the course, we will turn our attention to the equally important task of implementation. We will see that quite often, creating strategy has little to do with notions of traditional "strategic planning or strategy models."

This course begins with the Professional Development Seminar II (MHA 802) course and together make up Executive Residency II. Though the course begins during the Executive Residency it will continue online through the end of the term. (2.0 credit hours). Prerequisites: MHA 801, MHA 619. Corequisite: MHA 802

MHA 748 Organizational Development III: Tools Application: This course will provide hands on learning opportunities for students to discover and practice quality improvement theories and tools through practical application. Lessons will incorporate a series of the MHA curriculum including personal experiences, discovering how to improve organizational systems and processes. At the outcome of the class, the student will be able to apply basic quality and continuous improvement tools in a work or personal setting. This course begins with the Professional Development Seminar III (MHA 803) course and together make up Executive Residency III. Though the course begins during the Executive Residency, it will continue online through the end of the term. (1.0 credit hour). Prerequisites: MHA 802, MHA 742, MHA 648. Corequisite: MHA 803

MHA 749 Field Based Learning: This course serves a culminating experience in which students are expected to apply knowledge gained from their graduate experience. The course is designed to provide a field-based experience in which students demonstrate mastery of the programs curriculum and allow an opportunity for closure and connection between courses. The purpose of this field-based experience is to facilitate the integration and synthesis of program content through critical thinking; it is also a turning point for the student from education to professional practice.

Students may choose from the following optional tracts within the Field Based Learning experience:

- Long-Term Care (requires additional 400 hour LTC practicum)
- Research (requires sponsoring faculty approval)

(3.0 credit hours). Prerequisite: Students beginning their degree prior to fall 2012: 36.0 credit hours of core MHA courses; it is recommended MHA 749 be the last course the student completes. Students beginning their degree fall 2012 or later: completion of all MHA courses and Executive Residencies; MHA 803 is a suggested co-requisite to MHA 749 and enrollment in MHA 749 must be in the student’s final term.

MHA 801 Professional Development Seminar I: Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort based
curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed to the campus by key officials and receive a comprehensive orientation to the MHA program and graduate level education. Select topics that will be addressed include personal leadership, understanding differences in other, evidence-based scholarship, graduate writing, and competency-based education. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the first phase of their academic program.

Students meet with their peers in learning communities, led by their academic advisor and peers who are further in the program to support, mentor and grow as scholars and leaders.

Pre-residency work includes self-assessment, reading, self-reflection, and setting up student’s electronic portfolio accounts. Work during the residency includes participation in learning community activities, seminar based learning, and, one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for review.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies, and a five-year subscription to the program’s electronic portfolio tool. The student is responsible for purchasing required textbooks. (2.0 credit hours). Corequisite: MHA 619

MHA 802: Professional Development Seminar II:
Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort-based curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed back to the campus by key officials and will be challenged to build on and integrate their prior learning with new content to include personal and organizational wellness, change leadership, ways to work with a governing board, advocacy, conflict management, work/life balance and ethical decision making simulations. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the final block of courses.

Students meet with their own peers in learning communities and will assume the role as mentors or guides to the new students enrolled in MHA 801.

Pre-residency work includes self-assessment, reading, and self-reflection. Work during the residency includes participation in learning community activities, seminar-based learning and one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for review.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies. The student is responsible for purchasing required textbooks. (1.0 credit hour). Prerequisites: MHA 801, MHA 619. Corequisite: MHA 742

MHA 803 Professional Development Seminar III:
Blending Theory with Practice: The MHA Executive Residencies are designed to help students build interpersonal skills, assemble key knowledge and bridge theory with practice in an intense learning community environment. Drawing on the benefits of a cohort based
curriculum, while providing the flexibility of an online degree needed by working professionals, the residency experience lets learners demonstrate their learning with faculty, support the growth and understanding of peers, and integrate the NCHL competencies into their scholarly and practical work.

Students will be welcomed back to the campus by key officials and will be challenged to build on and integrate their prior learning with new content to include project management, team leadership, the role of gender in health care leadership, storytelling, and the preparation and presentation of their Field Based Learning project proposal. Students will review their academic portfolio with their academic advisor and discuss their leadership development plans for the final phase of their academic program.

Students teach their peers how to guide others in learning communities to mentor and grow as scholars and leaders.

Pre-residency work includes self-assessment, reading, and self-reflection. Students must come to the residency with a preceptor and project identified for their Field-Based Learning project in MHA 749. Work during the residency includes participation in learning community activities, seminar based learning, and one-on-one and group reviews and critiques.

Post-residency work includes submission of assignments, participation in online discussions, and application, analysis and synthesis of residency content. Students will update their learning portfolios with required documents and added portfolio assignments and, when complete, submit them to their academic advisor for a final review and grade.

This seminar begins during the Executive Residency and continues online through the end of the term. A residency fee is charged to those who enroll. This fee provides most meals, snacks, and beverages, as well as the cost of required workbooks, educational materials and supplies. The student is responsible for purchasing required textbooks. (1.0 credit hour). Prerequisite: MHA 802, MHA 742. Corequisite: MHA 748

MPH 620 Introduction to Graduate School and the MPH Program: This course, required for graduate students seeking a Master in Public Health degree, provides a foundation for critical analysis of current public health issues. It facilitates discussion of contemporary issues and challenges of public health policy and practice. Key topics include history and core functions of public health; balancing individual and societal rights; public health ethics; social determinants of health; health disparities; cultural competence, socio-ecological approaches to promote health; public health concerns in urban communities; and current public health practice. (1.0 credit hour)

MPH 621 Overview of the U.S. Health Care System: This course is a comprehensive analysis of the health care delivery system including the interface with the public health system and public health services. Components studied include: members of the health care team and their roles; the solo practitioner; group practice; multi-specialty; HMOs; remote-site hospital clinics; tax-supported ambulatory health care facilities; home health care; mobile health care; mental health care; other inpatient and domiciliary care facilities; long-term care facilities; local, state and federal direct care and regulatory agencies; nonprofit organization promoting health and/or providing services; health planning and coordinating bodies at various levels; accrediting agencies for health care facilities and personnel; organizations representing health care personnel and facilities; and organizations representing health care consumers; and, health care services financing and reimbursement in public and private systems. Formal, informal, financial, and political relationships between and among these components are discussed. Additional topics include: problems and potential solutions related to health services delivery and health care reform; consideration of differences between the U.S. system and the systems in other regions of the world; and, trends in issues, policy, financing, regulation, and technology in U.S. health care. (3.0 credit hours)

MPH 645 Community Health Program Planning and Evaluation: This course will provide an overview of community assessment, coalition development, data collection tools, and health improvement planning. Principles of formal program evaluation will include the nature of evaluation, the role of evaluation in the program life cycle, the relationship of statistical processes to specific evaluation designs, sampling, survey development, data collection and analysis, and interpretation of research findings. (3.0 credit hours). Prerequisites: MPH 620, MPH 650, MPH 657

MPH 650 Basic Statistics and Research: This is an introductory course that exposes the student to the use of
statistical techniques for health care data analysis. Topics covered include research design, data acquisition, types of data, univariate and bivariate data summarization techniques, tabular and graphical data presentation, inferential techniques using different theoretical distributions and introduction to the use of multivariate statistical techniques. Students will learn to apply statistical techniques for decision making and/or research data analysis. (3.0 credit hours)

**MPH 651 Occupational and Environmental Health**: This course is an introduction to occupational and environmental health for the Master of Public Health program students. Through reviewing applicable scientific literature, completing class assignments, and participating in online interactive activities in this course, you will learn that where people live and work has a profound influence on their health and safety. We will explore how historical environmental and occupational events have guided public health programs today. We will look at the impact of these events from a global, national, local, and community-based perspective. We will learn what environmental and workplace conditions provoke hazards, identify which threats pose a risk to health and look at how health is affected. We will assess the impact of social and behavioral influences and explore how disparities affect communities. Additionally, we will look at the legislative, legal, and political systems that guide regulations and public health program interventions, identifying which authorities oversee and regulate specific aspects of environmental and occupational issues. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 650, MPH 657, MPH 652, MPH 655. Corequisite: MPH 625

**MPH 652 Public Health Law, Ethics and Policy**: An overview of legal and ethical issues facing individuals, organizations, and constituencies involved in developing public health policy and providing public health services. The course is intended to provide students with a basic working knowledge of how law, ethics, and policy can be applied to real-world public health issues. Components studied include the legal process and resources; ethical issues of concern to public health providers; balancing public health practitioners' constitutional responsibility to advance the populations' health/well-being with protection of individual rights — especially during emergency situations; practical issues facing public health practitioners related to liability; informed consent, confidentiality, and medical records; and legal and ethical issues related to access to health care, reproductive health, vaccination policy, injury prevention and responding to the environment. The class will also explore how public health law tools can be applied in these situations. (3.0 credit hours). Prerequisites: MPH 620, MPH 621

**MPH 653 Public Health Administration and Management**: This course serves to support developing, entry-level competencies in public health administration and management. Topics include leadership, mission and goal definition, health data management, communications in public health, management of public health services, financial management and budgeting, quality improvement, outcomes assessment, strategic planning and marketing, health education, and other emerging topics necessary for the effective delivery of public health services. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 657

**MPH 654 Social and Behavioral Sciences**: This course examines the social and behavioral theoretical foundations of public health, specifically in the context of health behavior change, health promotion, and health education. Students will gain an understanding of the prominent social and theories that can be used in a variety of settings by a variety of health professionals. Students will learn about individual level, interpersonal level, and community level theories to be used in program planning and evaluation. (3.0 credit hours). Prerequisites: MPH 620, MPH 650, MPH 657

**MPH 655 Epidemiology**: Introduces students to the principles of epidemiology, including historical overview; descriptive methods and sources of data; diagnostic screening; study designs; analytical tools; measures of association; bias and confounding. Emphasis is placed on the critical evaluation and interpretation of public health research, using examples from the literature. Students develop problem-solving skills and an understanding of evaluation and research. (3.0 credit hours). Prerequisites: MPH 620, MPH 650, MPH 657

**MPH 657 Survey of Human Health and Disease**: This course is designed for individuals with very little or no clinical background as it introduces students to the fundamentals of human anatomy and physiology, organ systems, medical terminology and their relation to the mechanisms of acute and chronic diseases. This class will provide an overview of the major theories of disease, with special reference to mechanisms of the significant current
acute and chronic public health problems. (3.0 credit hours)

**MPH 658 Public Health Internship:** A planned, supervised, and evaluated practice experience is an essential component of a professional public health degree program. This course provides students the opportunity to further develop skills in public health concepts and demonstrate the application of these concepts through a hands-on experience in a public health setting. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657

**MPH 660 Public Health Capstone:** This course serves as a culminating experience in which students are expected to apply knowledge gained from their graduate education by integrating and demonstrating the program competencies obtained in their program of study. An important consideration in choosing a culminating experience is to find a project that allows the student to apply theory and principles learned in course work to a professional practice situation. This is the way in which faculty evaluate whether students have mastered the program’s competences, as evidenced by integration and demonstration of these competencies in the Capstone (detailed below).

During the capstone, students will work with a public health agency/organization to complete a project of mutual interest for the student and the agency. The purpose of this capstone experience is to facilitate synthesis of content from the MPH curriculum to a problem addressing the health of the community; it is also a turning point for the student from formal education to professional practice.

The student and the preceptor, with guidance from the MPH Capstone coordinator will determine the nature of the project. These individuals will work with and support the student throughout his/her learning experience. (2.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657; Corequisite: MPH 671

**MPH 671 Community Research Methods:** This course will provide students with a comprehensive overview of the methods used in the scientific research of public health. The content of this course includes experimental and non-experimental research designs, sampling, measurement, reliability and validity, data collection procedures and methods, and generalizability of findings. This course provides instruction on basic research methodology to be applied in investigations that target health and health care related issues in the context of a community setup. (3.0 credit hours). Prerequisites: MPH 620, MPH 621, MPH 625, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657. Corequisite: MPH 671.

**MPH 711 Grant Writing:** This course will prepare you to develop grant proposals and program level proposals in today’s funding environment. The course will provide you with training in the three major elements of grantsmanship: preparation, proposal writing and follow-up. It offers a practical approach to obtaining grant funds from public or private sources at the federal, state and local levels. (3.0 credit hours)

**MPH 756 Current Topics in Public Health:** This course utilizes the lectures and learning opportunities of professional conferences. The DMU MPH program will offer this course as an organized class around the Iowa Public Health Conference in April. Public health encompasses a wide variety of health activities, and it requires breadth of exposure and knowledge of current trends. Public health associations sponsor conferences meant to provide professionals with reports of current activities, the most recent research information and exposure to opportunities for new public health collaborations. This environment is ideal for students to increase their understanding of public health activities and the key players who make a difference in how public health is delivered. Through this course, students will attend a minimum two-day public health conference and write assignments according to the lectures they’ve attended. Students will also reflect on how the conference creates opportunity for informal gatherings meant to promote professional relationships. (1.0 credit hour)

**MPH 766 Geographic Information Systems:** Geographic Information Systems (GIS) are computerized systems designed for the storage, retrieval and analysis of geographically referenced data. GIS maps all sorts of physical, biological, cultural, demographic and economic data. This course uses a unique approach for teaching GIS in health care. It imbeds learning how to use GIS software in the context of carrying out projects for visualizing and analyzing health-related data. The course includes a lecture and computer lab that focuses on a health care issue that uses ArcView GIS from ESRI, Inc. to analyze data or solve a problem. Through assignments and project case studies, students will not only learn how to use the
software but will also learn the many distinctive advantages of using GIS for health care policy making and planning. By the end of the course, students will have sufficient background to become savvy users of GIS in health care organizations — building, managing and using GIS maps and health-related data. (3.0 credit hours)

**MPH 768 Policy and Practice: Emergency Preparedness:** This is an analysis of emergency public health preparedness and response. Preparing for a public health emergency is a part of the larger issues for preparing for and responding adequately to any type of public health disaster. Components studied include government capacity, public health law, public-private partnerships during emergencies, public health tools during emergencies, infectious disease emergencies, terrorism, natural disasters, industrial emergencies and special populations and issues. (3.0 credit hours)

**MPH 774 Infectious Diseases of Humans and Animals:** This course is an overview of diseases that are shared between humans and animals, otherwise known as zoonoses. Lectures will focus on the intersection of human-animal health, infectious disease epidemiology, routes of infection, signs, control and prevention, emergence of new diseases and the role of public health in managing these issues. Some diseases will be covered in-depth while others will be addressed in overview. Topics include emerging diseases, anthrax, petting zoos, HIV/AIDS, plague, food and milk safety, leptospirosis, influenza and more. The concept of One Health will be a common theme of this course. (3.0 credit hours)

**MPH 783 Foundations of Global Health:** Public health influences all aspects of the lives of the world’s population and is itself influenced by the interconnectedness of each country’s health status as a result of modern travel and communication modalities. This course examines the foundations of global health through the lens of issues facing developing countries challenged by limited resources. Global health principles, concepts and international goals will be discussed, and the interaction of health, politics, economics and socio-demographic factors will be examined. Students will analyze selected priority global health issues as to causes, individual and societal impact and current and future strategies to mitigate and prevent harmful consequences. (3.0 credit hours)

**MPH 785 Global Health Policy, Practice and Partnerships:** This course explores the new reality of globalization which requires public health professionals to view population health through a kaleidoscope of economic, geo-political, technological, social, and cultural connections between individuals and groups of people around the world. These connections intersect through policies, practices and partnerships that ultimately determine the health status of populations. This course explores historical and contemporary forces contributing to the international community’s response to health determinants around the world. Understanding practices, policies, and partnerships is essential to improving living and health conditions in low- and middle-income countries, as well as critically analyzing the role of high-income countries in improving health outcomes globally. Students will synthesize complex knowledge about the roles and interrelationships of local, national, and international entities that address global public health issues. Governmental and non-governmental organizations and structures will be examined. (3.0 credit hours)

**MPH 786 Health Education/Health Promotion:** Techniques in Technology: The effectiveness and efficiency of technology in public communication (such as websites and multimedia) are dependent upon the quality of the strategies and methods used. This course will prepare the public health official with protocol and skills to integrate various technologies in promoting public health awareness. The student is provided with the basics of website design, message design and instructional design and will explore the research and principles of how people learn. Students will be expected to participate in critical thinking activities and in the development of a Technology-Based Health Promotion resource, as well as demonstrate basic understanding of design methods and learning principles. (3.0 credit hours)

**MPH 897-899 Independent Study:** This course is designed for students to independently investigate topics outside the context of a traditional course. Students collaborate with an MPH faculty member to pursue a topic of mutual interest. Independent study projects may involve topics such as global health trips and research projects, or exploring a special topic in more depth than what is covered in the curriculum. Students collaborate with a faculty member to establish measurable learning objectives and a schedule or plan and to establish roles and responsibilities for the student and supervising faculty member. Students must have a minimum 3.0 GPA to enroll.
and independent study projects must be approved by the Program Director prior to enrollment. (1.0 – 3.0 credit hours)

**MSA 2A01 Seminar in Anatomy I:** Review, discussion and presentation of topics related to anatomy research and teaching. (1.0 credit hour). **Prerequisites:** ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

**MSA 2A02 Seminar in Anatomy II:** Review, discussion and presentation of topics related to anatomy research and teaching. (1.0 credit hour). **Prerequisites:** ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

**MSA 2A03 Human Development:** An introduction to the basic principles and concepts of human development from zygote to birth. Wherever possible, developmental processes will be translated to clinical relevance. (2.0 credit hours)

**MSA 2A04 Teaching in Anatomy:** This course will allow dual-degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (4.0 credit hours). **Prerequisites:** ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

**MSA2A07 Research:** Research under the supervision of a graduate faculty member. (1.0-2.0 credit hours). **Prerequisite:** Consent of Instructor

**MSA 2A10 Preparation for the Comprehensive Examination:** This course prepares students for the final requirement of the anatomy graduate program, the comprehensive examination. Students will learn how to write comprehensive examination questions and grading rubrics to assess knowledge of the four core disciplines of gross anatomy, cell and tissue biology, neuroanatomy, and human development, and writing and critical thinking skills. Students will ultimately answer questions generated and evaluated by their peers as a way to expose and correct their weaknesses in knowledge of the core anatomic disciplines as well as written and critical thinking skills. At the end of the course, students will sit for mock comprehensive examinations to emulate the actual experience. (2.0 credit hours). **Prerequisites:** ANAT 1101A, ANAT 1101B, HIST 1106, MSA 2A03

**MSA 2A11 Tools for Teaching:** This course will cover course design and revision, crafting a syllabus, application of adult learning principles to the design of presentations, effective use of learning psychology in the effective design and delivery of presentations, educational methods, execution of adult learning principles and assessing student learning outcomes. (1.0 credit hour)

**MSA2A12 Literature Review:** This course will educate students in the conduct of a systematic literature review consistent with the competency standards recommended by the Association of College and Research Libraries. Specifically, students will learn to 1) identify needed information; 2) acquire the information efficiently and effectively; 3) critically read and evaluate the information; 4) effectively organize and communicate (orally and in writing) the information; and 5) legally and ethically acquire and use the information. (3.0 credit hours)

**MSA 2A14 Teaching in Anatomy I:** This course will allow primary degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (2.0 credit hours). **Prerequisites:** ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

**MSA 2A18 Advanced Dissections in Anatomy I:** The course will allow students to dissect either the head and neck, back, thorax or abdomen of the human cadaver to further their knowledge of theses anatomical regions. Students, under supervision by the faculty, will prepare prosections of specific areas of the human cadaver, which will be presented to the first year DO/DPM class in the form of an oral presentation. Students will be assessed by the quality of their dissection and presentation. (1.0 credit hour). **Prerequisites:** ANAT 1101A, ANAT 1101B

**MSA 2A24 Teaching in Anatomy II:** This course will allow primary degree students to participate in laboratory and/or lecture instruction in one or more of the courses offered by the anatomy department. (2.0 credit hours). **Prerequisites:** ANAT 1101A, ANAT 1101B, ANAT 1104, HIST 1106, MSA 2A03

**MSA 2A28 Advanced Dissections in Anatomy II:** The course will allow students to dissect either the pelvis, perineum or upper and lower limbs of the human cadaver to further their knowledge of theses anatomical regions. Students, under supervision by the faculty, will prepare prosections of specific areas of the human cadaver, which will be presented to the first year DO/DPM class in the form of an oral presentation. Students will be assessed by the quality of their dissection and presentation. (1.0 credit hour). **Prerequisites:** ANAT 1101A, ANAT 1101B
**MSPA 1340 Program to Practice I:** This Spring semester course is the prerequisite for the PA student’s preparation of their master's project. During this course the student completes the required online modules offered by the Collaborative Institutional Training Initiative program on human subject research, responsible conduct of research, and health privacy for researchers. A brief review of APA formatting guidelines and the Turnitin™ software is also provided during this course. (0.5 credit hour).  
*Prerequisites: MSPA 1382, MSPA 1394, MSPA 1395*

**MSPA 1360 Anatomy – Clinically-Oriented:** An integrated anatomical approach to the study of human body structure. Lectures systematically take the student from the microscopic level through the formation of organ systems, with emphasis on the interdependence of these systems. Functional concepts and internal structure are related to surface anatomy as a basis for performing a physical examination. Also included in this course is anatomic radiography, which emphasizes normal radiological structures and prepares students for later clinical lectures that emphasize abnormal radiographs during the Clinical Preventive Laboratory Medicine series. (6.5 credit hours)

**MSPA 1361 Physiology:** This clinically oriented course provides instruction on the overall physiology of the human body. Normal physiological states, as well as changes that occur in disease, infection, and trauma will be discussed. Students will be able to use this information to more effectively diagnose and treat their patients, as well as provide students with information that they may use to educate their patients regarding the disease process. (6.0 credit hours)

**MSPA 1362 Flex Care Communication Training:** This course is designed to help students understand and value different approaches to communication and through this process, unlock qualities in themselves and others which will allow them to work more effectively and creatively together. Students will be provided a framework that will facilitate their understanding of other people, how they can gain perspective and learn how they can flex their communication style to interact more effectively. This training includes an opportunity for them to complete the Myers – Briggs Type Indicator (MBTI). (1.0 credit hour)

**MSPA 1363A Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (0.5 credit hour)

**MSPA 1363B Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (0.0 credit hours)

**MSPA 1363C Pathology:** This clinically oriented course provides instruction on the following pathology topics: cell injury, hemodynamic disorders, neoplasms, and inflammation and repair. Body system pathology will be covered in the Clinical Preventive Laboratory Medicine (CPLM) courses. When combined with Clinically-Oriented Anatomy, Physiology, and the CPLM courses, students will gain a comprehensive view of conditions affecting the human body. Students will be able to use this information to more effectively diagnose, treat and educate future patients. (2.0 credit hours)

**MSPA 1364 Nutrition:** Nutrition plays a role in nearly every health condition. This course is an introduction to clinical nutrition and covers the metabolism of lipids, carbohydrates, and proteins. Nutritional assessment and clinical topics such as obesity, pregnancy, vitamins and supplements are discussed. (1.0 credit hour).  
*Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A*

**MSPA 1371 Medical Pharmacology:** Modern medicine relies on pharmacotherapy and this course focuses on providing the students a solid foundation in the basic concepts and scientific principles of clinical pharmacologic decision making. For each of the major classes of medication, the students will be expected to know the drug's mechanism of action, clinical uses, adverse effects and pertinent special considerations. Mastery of this
course is paramount to the students’ understanding of disease management throughout the remainder of the didactic year. (5.5 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

MSPA 1372 Clinical Preventive Laboratory Medicine (CPLM) I: This is the first course in the four-part CPLM series covering the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on Behavioral Health, Orthopedic and Rheumatologic conditions, Dermatologic conditions, and Infectious Diseases. (7.0 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

MSPA 1375 Immunology/Microbiology: This course is an overview of the human immune system and the extrinsic pathogens that contribute to morbidity and mortality. Topics specifically covered through lecture and lab sessions include bacteria, viruses, fungi, and parasites. There is a clinically oriented emphasis on the etiology of infectious disease, epidemiology, clinical presentation, and diagnosis. The laboratory exercises focus on techniques performed in modern clinical practice. (2.5 credit hours). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

MSPA 1376A Clinical Skills I: This is the first course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today’s world. This course will provide instruction and interactive labs in Basic Cardiac Life Support (BLS). (0.0 credit hours)

MSPA 1376B Clinical Skills II: This is the second course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today’s world. This course consists of the following laboratory sessions: Ophthalmology Lab, Gynecology Lab, Pulmonary Function Testing Lab, and Blood Borne Pathogens Training. (0.5 credit hour). Prerequisites: MSPA 1376A, MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

MSPA 1376C Clinical Skills III: This is the third course in a series of three focusing on hands-on experiences that will allow the student to obtain a level of knowledge and competence that will ensure a foundation from which to build clinical skills for the future. Competency when performing hands-on skills is essential to the delivery of health care in today’s world. This course consists of the following sessions: Advanced Cardiac Life Support (ACLS), Basic Disaster Life Support™ (BDLS®), National Incident Management System (NIMS) and Incident Command System (ICS), Basic Surgical Medical Skills, Casting and Splinting Lab, Wound Care Class, Pediatric Newborn Lab, Blood Borne Pathogens Training, and Child and Dependent Adult Abuse Reporting. (3.0 credit hours). Prerequisites: MSPA 1376B, MSPA 1377, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1377 Clinical Preventive Laboratory Medicine (CPLM) II: This is the second course in the CPLM series coverings the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to properly order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on Hematology/Oncology, Gastrointestinal Medicine, EKGs, Heart Sounds, Cardiology, and Respiratory Systems. (10.0 credit hours). Prerequisite: MSPA 1372

MSPA 1378 Medical Genetics: This course is an introduction to the basic concepts of human and medical genetics. Through a series of online modules, students will investigate the basics of DNA and genetic disease, modes of inheritance, meiosis, non-Mendelian inheritance, and concepts of genetic epidemiology. A series of case studies will help the student discover the impact of genetics in clinical practice. Utilizing their family history, the students will develop their own family pedigree. (1.0 credit hour). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1372, MSPA 1375, MSPA 1376A, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1379 Medical Genetics: This course is an introduction to the basic concepts of human and medical genetics. Through a series of online modules, students will investigate the basics of DNA and genetic disease, modes of inheritance, meiosis, non-Mendelian inheritance, and concepts of genetic epidemiology. A series of case studies will help the student discover the impact of genetics in clinical practice. Utilizing their family history, the students will develop their own family pedigree. (1.0 credit hour). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1372, MSPA 1375, MSPA 1376A, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1381 Introduction to the Health Care Delivery Systems: This course is designed to provide a basic level of knowledge in the structure and function of the health care delivery system, medical law, and ethical theories and
issues as they apply to the PA and PA/physician team. Issues discussed will include reimbursement, inequality to accessing health care issues, health care policies, and the roles of the different members of the health care professional team. (2.0 credit hours). Prerequisites: MSPA 1377, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1382 Introduction to Ethics: The preparation of a competent medical provider includes not only medical knowledge but also an understanding of professionalism and ethical principles. This course challenges the PA student to analyze, from an ethics perspective, clinical situations such as palliative care, confidentiality, legal issues and other emotionally charged topics. Instruction is provided via lectures, small group discussions and written assignments. (1.5 credit hours). Prerequisites: MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1384A Physical Diagnosis I: This course is designed to introduce the student to patient history taking and communication skills. Students will begin using medical diagnostic equipment as they develop the skills needed to perform complete and focused physical examinations. Students will examine assigned lab partners and simulated patients to gain the skills and knowledge to perform a thorough history and physical examination. The pediatric, adult, and geriatric physical examinations will be emphasized. (1.5 credit hours)

MSPA 1384B Physical Diagnosis II: This course is a continuation of Physical Diagnosis I. Students will learn the components of the physical examination, recognize abnormal and normal findings, and communicate the information in oral and written formats. The pediatric, adult, and geriatric physical examinations will be emphasized. Simulated patients will be used to enhance history taking and physical examination skills. (1.0 credit hour). Prerequisites: MSPA 1384A, MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A

MSPA 1389A Clinical Patient Assessment I: This course will build upon the skills from the Physical Diagnosis I and II courses to refine the physician assistant student's ability to efficiently gather a pertinent and relevant medical history as well as introduce the student to the concept of clinical reasoning in the systems of OB/gynecology, cardiology, endocrinology, renal, trauma and pediatrics. This information is used to conduct the physical examination and order appropriate diagnostic evaluations thus enabling the student to develop the diagnosis and treatment plan for the patient. (1.0 credit hour). Prerequisites: MSPA 1384B, MSPA 1375, MSPA 1372

MSPA 1389B Clinical Patient Assessment II: This course will build upon the skills from the Physical Diagnosis I and II courses to refine the physician assistant student's ability to efficiently gather a pertinent and relevant medical history as well as introduce the student to the concept of clinical reasoning in the systems of OB/gynecology, cardiology, endocrinology, renal, trauma and pediatrics. This information is used to conduct the physical examination and order appropriate diagnostic evaluations thus enabling the student to develop the diagnosis and treatment plan for the patient. (1.5 credit hours). Prerequisites: MSPA 1389A, MSPA 1364, MSPA 1371, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1393A

MSPA 1393A PA Professional Issues I: This course is designed to introduce the student to the PA profession: its history, organizations, current trends in the profession, and the physician/PA team. This course explores cultural issues and patient care, quality assurance, and risk management. (0.5 credit hour). Prerequisites: MSPA 1360, MSPA 1361, MSPA 1362, MSPA 1363, MSPA 1376A, MSPA 1384A

MSPA 1393B PA Professional Issues II: This course is designed to introduce the student to the PA profession: organizations, current trends in the profession, the physician/PA team, professionalism, patient consent, HIPAA, credentialing, and licensure. This course explores cultural issues and patient care, quality assurance, and risk management. (0.5 credit hour). Prerequisites: MSPA 1393A, MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A

MSPA 1394 Clinical Preventive Laboratory Medicine (CPLM) III: This is the third course in the CPLM series covering the etiology, epidemiology, presentation, evaluation, and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on women's health, endocrine and neurologic conditions, ENT, renal diseases, and ophthalmology. (10.5 credit hours). Prerequisites: MSPA 1377, MSPA 1364, MSPA
MSPA 1395 Research and Epidemiology: The first portion of this course is an introduction to research methodology and the critical evaluation of evidence-based publications. The students will learn the basics of research design, biostatistics, and how to conduct a literature review. It is during this course the PA students will start considering topics for their master’s projects. The second component of this course prepares the students for practice by teaching epidemiologic principles as a cornerstone of clinical reasoning and diagnosis. (1.0 credit hour). Prerequisites: MSPA 1364, MSPA 1371, MSPA 1375, MSPA 1376B, MSPA 1377, MSPA 1378, MSPA 1389A, MSPA 1393A

MSPA 1398 Clinical Preventive Laboratory Medicine (CPLM) IV: This is the final course in the CPLM series covering the etiology, epidemiology, presentation, evaluation and management of various diseases and disorders. Students will learn how to appropriately order and interpret diagnostic tests and formulate differential diagnosis and management plans for common diseases found in the primary care setting. Emphasis in this course will be on the pediatrics, emergency medicine and geriatrics. (6.5 credit hours). Prerequisites: MSPA 1394, MSPA 1382, MSPA 1395

OMM 1101A Osteopathic Manual Medicine I: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes osteopathic principles and practice, applied anatomy, fascia and soft tissue, tensegrity, reflexes (somato-visceral, somato-somatic, and viscero-somatic), and pelvis. It concludes with the comprehensive structural diagnosis and treatment of the pelvic girdle. (2.5 credit hours)

OMM 1101B Osteopathic Manual Medicine I: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes the physiology of pain, back pain, upper and lower extremities, neck, and myofascia. It concludes with osteopathic considerations of the lymphatic system. (2.5 credit hours)

OMM 2101A Osteopathic Manual Medicine II: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes the physiology of pain, back pain, upper and lower extremities, neck, and myofascia. It concludes with osteopathic considerations of the lymphatic system. (2.5 credit hours)

OMM 2101B Osteopathic Manual Medicine II: The students will learn a traditional approach to osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten and Zink and others who have followed these pioneers of the profession. Material covered includes OMM considerations of pregnant, hospitalized, and pediatric patients, cranial osteopathy, short leg syndrome, scoliosis, and the integration of OMM into primary care. It concludes with a comprehensive board examination review. (1.5 credit hours)

OMM 3101A Osteopathic Manual Medicine III: Students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. During each core clinical clerkship rotation, students will be assigned corresponding chapters in the required textbook and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. (1.0 credit hour)

OMM 3101B Osteopathic Manual Medicine III: Students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. During each core clinical clerkship rotation, students will be assigned corresponding chapters in the required textbook and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. (1.0 credit hour)

OMM 4101A Osteopathic Manual Medicine IV: The students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten,
Zink, Mitchell, Korr and others who have followed these pioneers of the profession. All students are encouraged to assess and treat as many patients as their preceptor allows. Students are encouraged to read chapters corresponding with clinical encounters during rotations and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. A one-page summary of patient encounters, including structural assessment, visceral correlations and proposed treatment/treatment provided will be submitted by each student. (0.5 credit hour)

**OMM 4101B Osteopathic Manual Medicine IV:** The students will continue their training in osteopathic manual medicine based on the distinctive DMU heritage as developed through the contributions of Drs. TePoorten, Zink, Mitchell, Korr and others who have followed these pioneers of the profession. All students are encouraged to assess and treat as many patients as their preceptor allows. Students are encouraged to read chapters corresponding with clinical encounters during rotations and will document osteopathic diagnosis and manual treatment of the musculoskeletal-fascial system in patients on each of the clinical rotations. A one-page summary of patient encounters, including structural assessment, visceral correlations and proposed treatment/treatment provided will be submitted by each student. (0.5 credit hour)

**OSTE 1102 Fundamentals of Patient Safety and Clinical Quality I:** This online course is designed to provide medical students with an understanding of the circumstances related to patient safety within the health care setting. Topics covered include the basic vocabulary and concepts related to patient safety, the effect of systems on patient care, strategies for organizational change and team-building to achieve health care safety and quality, the impact of culture and teamwork on clinical outcomes, the root causes of clinical errors and how to learn from them, the basic vocabulary and concepts of clinical quality and risk, and models for assessing the improving quality. (0.5 credit hour)

**OSTE 1103A Professional Certification I:** The Professional Certification I course encompasses all activities that lie outside the traditional curriculum, but are required components for first-year DO students to accomplish. All students are required to achieve certification in Basic Life Support and Bloodborne Pathogens Training during the first academic year, and this training is a part of Professional Certifications I. The American Red Cross Disaster Health and Sheltering Course is an introduction to disaster response, assessment and collaboration that introduces students to the many facets of disaster response and mitigation. All university-wide interprofessional and professional integrity activities designed to give students authentic work-related experiences are included in this course as well. (0.5 credit hour)

**OSTE 1103B Professional Certification I:** This course encompasses personal development by giving students training in literature searches using accepted search engines and databases in the medical/health area, and basic instruction in the use of computer and network facilities on campus. Depending on student scheduling it will also include selected components of OSTE 1103A. Students who choose to complete a summer research project will also complete mandatory research-related modules on Responsible Conduct of Research and Protection of Human Research Subjects and/or Animal Research provided by the Collaborative Institutional Training Initiative (CITI). (0.0 credit hours)

**OSTE 1122 Geriatrics:** This course will introduce the student to the core concepts in gerontology and geriatrics that will enable the future practitioner in any of the specialties to better address the unique health care needs of their older patient. Content areas include general principles of aging, preventive care of the older adult, core principles of geriatric medicine, the multi-disciplinary geriatric health care team and an overview of end-of-life issues. (2.5 credit hours)

**OSTE 2102 Fundamentals of Patient Safety and Clinical Quality II:** This online course is designed to provide medical students with a practical application of patient safety concepts and principles within the health care setting. Topics covered include how to communicate with patients and families, the relationship between infection control and patient safety, how adverse events associated with surgical and invasive procedures occur, and how to utilize safe practices within the workplace. (0.5 credit hour)

**OSTE 2103A Professional Certification II:** The Professional Certification II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year DO students to
accomplish. All students are required to achieve recertification and Bloodborne Pathogens Training during the second academic year, and this training is a part of Professional Certifications II. The American Red Cross Disaster Health and Sheltering Course is an introduction to disaster response, assessment and collaboration that introduces students to the many facets of disaster response and mitigation. Students are required to complete the online Collaborative Institutional Training Initiative (CITI) course that will prepare them for the responsible conduct of research and in the principles of human-subjects research. Additionally, students will be introduced to the impact that research plays in advancing medical knowledge and the quality of patient care by attending the DMU Research Symposium keynote address. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients. (0.0 credit hours)

**OSTE 2103B Professional Certification II:** The Professional Certification II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year DO students to accomplish. All students are required to achieve recertification in Basic Life Support and Bloodborne Pathogens Training during the second academic year, and this training is a part of Professional Certifications II. The course also encompasses Advanced Cardiac Life Support, the next stage in emergency health training. Training in patient privacy regulations before clinical rotations is also included in this certifications course - HIPAA: Health Insurance Portability and Accountability Act of 1996. All these activities are designed to ensure student compliance with certifications that demonstrate lifelong learning and increase student awareness of subjects that will enhance care for their future patients. (0.0 credit hours)

**OSTE 2104B Early Clinical Experiences:** Students not completing all of the course components of OSTE 2104A due to scheduling will do so during this course. (0.0 credit hours)

**OSTE 2119 Preventive Medicine/Nutrition:** An introduction to the role of clinical preventive medicine in promoting health and preventing disease, disability and premature death from a population-based perspective. The course examines the role of screening, chemoprophylaxis and behavior modification in achieving these goals. Emphasis is given to the role of the successful physician in promoting healthy lifestyles in the communities they serve. A major component of this course is an introduction to the principles of nutrition, especially as it relates to the prevention of disease. Students will be encouraged to review their own nutritional habits and the influence these may have on a physician’s role as patient counselor. (2.0 credit hours)

**OSTE 2120 Evidence-Based Medicine:** This course provides the student with an introduction to evidence-based methods to evaluate medical literature. This course approaches evidence-based medicine by means of lectures and literature review assignments. (1.0 credit hour)

**OSTE 2124 Infectious Disease/Public Health:** Emphasizes the major infectious diseases in terms of etiology, epidemiology, treatment, control and prevention. These diseases are discussed by individuals in the fields of infectious diseases and public health. The combination of didactic and case-based instruction will provide exposure to the basic science and clinic aspects of infectious diseases. (1.5 credit hours)

**OSTE 2125A Clinical Reasoning:** This is a clinically oriented course consisting of three components: simulation laboratory experiences, clinical reasoning lectures and Standardized Performance Assessment Laboratory (SPAL) experiences. The course provides the student with an introduction to essential reasoning skills
needed in clinical practice. The course stresses assimilation and integration of information obtained during the history and physical examination, use of common statistical methods, establishment of differential diagnoses, appropriate laboratory and ancillary tests, and clinical decision-making. Students are responsible for all information of the fall term of academic year 2 taught up to the time of their simulation cases and SPAL experiences. The course approaches clinical reasoning through lectures, group discussion, clinical case simulations and SPAL experiences. (1.0 credit hour)

OSTE 2125B Clinical Reasoning: This is a clinically oriented course consisting of three components: simulation laboratory experiences, clinical reasoning lectures and Standardized Performance Assessment Laboratory (SPAL) experiences. The course provides the student with an introduction to essential reasoning skills needed in clinical practice. The course stresses assimilation and integration of information obtained during the history and physical examination, use of common statistical methods, establishment of differential diagnoses, appropriate laboratory and ancillary tests, and clinical decision-making. Students are responsible for all information of the spring term of academic year 2 taught up to the time of their simulation cases and SPAL experiences. The course approaches clinical reasoning through lectures, group discussion, clinical case simulations and SPAL experiences. (1.5 credit hours)

OSTE 2140 Introduction to Clinical Clerkships: The clinical clerkships are a time for accelerated learning and professional maturation in the skills of becoming a physician. This course serves as a bridge from pre-clinical study to clinical clerkships. It will present the clinical survival skills necessary for the art and practice of patient-centered health care. (1.0 credit hour)

OSTE 3144A Clinical Rotations Year III: Third year clinical rotations are the "core" rotations. These "core" rotations set the foundation for the clinical learning and preparation for 4th year rotations and post-graduate training. During the third year, students will be a part of a year-long site or in the non-year-long track. The year-long sites are currently located in seven states (including Iowa) where students will spend their entire third year doing their core rotations. The non-year-long track allows students to pre-schedule (or select) a limited number of rotations in their desired geography as well as being within Iowa for the remainder of their rotations. Third year core rotations include: Family Medicine (8 weeks), General Internal Medicine (4 weeks), OB/GYN (4 weeks), General Pediatrics (4 weeks), Psychiatry (4 weeks) and General Surgery (4 weeks), Primary care selective (which includes Emergency Medicine – 4 weeks), Medicine/Surgical Subspecialty Selective (4 weeks) and General Selective (4 weeks). (20.0 credit hours)

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OSTE 3151 Introduction to Health Systems and Policy: This online course is designed to provide medical students with an overview of the U.S. health care system, to include content related to reimbursement for health services, the organization of the health care delivery system, access to health services, public health issues, managed care and quality, the impact and importance of evidence-based medicine, the professionals that support physicians in practice, supply and demand issues related to physicians, specialty (physician) distribution, population-based medicine, community health assessment and the physician’s role and more. Formal and informal, financial and political relationships between and among system sectors will be considered. Regional patterns of care, trends, problems and potential solutions will be discussed/included. (1.0 credit hour)

OSTE 3160 Comprehensive Clinical Assessment: Students return to campus at the end of the third year to assess their current clinical knowledge and skills in order to identify gaps and remediate any deficiencies. The week consists of a computer-based standardized board-like
exam, standardized patient encounters, a simulated patient encounter, an osteopathic manual medicine practical patient encounter, an osteopathic manual medicine written exam, and a review of the Electronic Resident Application Service (ERAS) and the residency match process. (1.0 credit hour)

**OSTE 4144A Clinical Rotations Year IV:** Fourth-year rotations include Family Medicine (4 weeks) and Selective (of Community Medicine, Rural Medicine, International Medicine or another Family Medicine – 4 weeks). Each student will have up to 36 weeks of elective time during their fourth-year in order to be able to do “audition” rotations at the programs of their choice. One special highlight of the fourth-year is the international rotation availability. Students are allowed to do up to 8 weeks of international rotations. Also, we offer the ability of up to 8 weeks of research elective time (during the fourth-year). (20.0 credit hours)

**OSTE 4144B Clinical Rotations Year IV:** Fourth-year rotations include Family Medicine (4 weeks) and Selective (of Community Medicine, Rural Medicine, International Medicine or another Family Medicine – 4 weeks). Each student will have up to 36 weeks of elective time during their fourth year in order to be able to do “audition” rotations at the programs of their choice. One special highlight of the fourth-year is the international rotation availability. Students are allowed to do up to 8 weeks of international rotations. Also, we offer the ability of up to 8 weeks of research elective time (during the fourth-year). (20.0 credit hours)

**PA 2302 Psychiatry Rotation:** Four weeks focusing on the evaluation, intervention, and management of the psychiatric patient. (4.0 credit hours)

**PA 2303 Emergency Medicine Rotation:** Four weeks covering initial assessment and stabilization of patients in the emergency setting. (4.0 credit hours)

**PA 2309 Elective Rotation:** Up to 12 weeks of electives, which may include cardiovascular surgery, infectious disease, tropical medicine, and many other areas of specialization. Experiences will be provided in geriatrics, pediatrics, and women’s health. (12.0 credit hours)

**PA 2335 Surgery Rotation:** Four weeks of evaluation and management of common surgical problems, including preoperative workup, intraoperative care, and postoperative follow-up. (4.0 credit hours)

**PA 2336 Internal Medicine Rotation:** 12 weeks with emphasis on the clinic evaluation of common medical problems in adult health care, the role of the hospital in the delivery of integrated primary care services, and the specific needs of rural communities and women. (12.0 credit hours)

**PA 2337 Family Medicine Rotation:** 12 weeks of clinical experience in family medicine. Concepts and techniques studied in the preclinical year are applied. Emphasizes development of the knowledge and skills needed to assess and manage common medical problems. (12.0 credit hours)

**PA 2340A Program to Practice:** This summer semester course is the first of three courses created to help guide the second-year PA student through the process of creating a master’s project. The initial research will be conducted during this time period and written correspondence with the student’s advisor will take place, outlining the progress to date. (1.0 credit hours).

**PA 2340B Program to Practice:** This fall semester course is a continuation of PA 2340A. The second-year PA student will gather more research data and continue to regularly share progress with his/her advisor. A preliminary draft of the master’s project should be completed during this course. (1.0 credit hours).

**PA 2340C Program to Practice:** It is during this spring semester course the second-year PA student completes his/her master’s project, delivers an oral presentation, participates in the capstone SIM and SPAL assessments, and prepares for the national certification exam by sitting for individual comprehensive examinations. Students also meet with their advisors for summative evaluations of their performance during this time. (1.0 credit hour).

**PATH 1109 General Pathology:** Develops a basis for the biological interpretation of disease processes by integrating the changes in structure and function associated with diseases and the relationship of symptoms to lesions. (2.5 credit hours)

**PHYS 1116 Medical Physiology:** An introduction to basic principles of physiology from the cellular level (membrane potentials, receptor physiology, transport mechanisms) to
organ systems (cardiovascular, nervous, respiratory, gastrointestinal, urinary-renal and endocrine). Emphasizes regulatory control interactions needed for a holistic understanding of homeostasis and pathophysiology of humans. The course uses lectures, laboratories and clinical scenarios to teach the control mechanisms. Physiology is an intermediate step in the progression of knowledge acquisition necessary for subsequent courses. Knowledge of anatomy and biochemistry is a prerequisite for understanding physiology and the application to pathophysiology. (6.5 credit hours)

**PHARM 2115 Medical Pharmacology:** This course introduces the basic principles of medical pharmacology and pharmacodynamics. The focus of the course is on the detailed mechanisms of drug actions and interactions as they relate to various clinical systems and pathologies. Several important topics in pharmacology are emphasized including autonomic pharmacology, neuropharmacology, cardiovascular pharmacology, pharmacogenomics, medical toxicology, herbal medicines and geriatric pharmacology. The course uses lecture, small group discussions, human patient simulations and clinical scenarios to teach a holistic understanding of the appropriate use of drugs for therapeutic intervention. (5.5 credit hours)

**PHYS 1116 Medical Physiology:** An introduction to basic principles of physiology from the cellular level (membrane potentials, receptor physiology, transport mechanisms) to organ systems (cardiovascular, nervous, respiratory, gastrointestinal, urinary-renal and endocrine). Emphasizes regulatory control interactions needed for a holistic understanding of homeostasis and pathophysiology of humans. The course uses lectures, laboratories and clinical scenarios to teach the control mechanisms. Physiology is an intermediate step in the progression of knowledge acquisition necessary for subsequent courses. Knowledge of anatomy and biochemistry is a prerequisite for understanding physiology and the application to pathophysiology. (6.5 credit hours)

**POD 1223 Principles and Practices of Podiatric Medicine:** Is designed to familiarize the student with the governance and practice of podiatric medicine from the early days to the 21st century. The course introduces the student to professional expectations and provides an overview of the various components of podiatric medical education and clinical practice. (2.0 credit hours)

**POD 2204 Cultural Competency in Medicine:** This course is designed to introduce the student to the existence of health disparities and provide an opportunity to learn and engage in discussions about diverse populations. This will help the student to build stronger patient relationships, care for patients from diverse groups more effectively and improve health care outcomes. (1.0 credit hour)

**POD 2207 Clinical Podiatric Medicine and Diagnostics:** Prepares students for rotations through course emphasis on principles of physical diagnosis and medical records, radiology, nuclear medicine, rheumatology, peripheral vascular disease, overuse injuries, infectious disease and therapeutic intervention. (4.0 credit hours)

**POD 2210 Biomechanics: Normal Structure & Function:** Discusses the evolution, development and functional anatomy of the lower extremity, focusing on the principles of kinesiology, kinetics, kinematics, muscle physiology and bioengineering as they relate to the static and dynamic normal lower extremity. (2.0 credit hours)

**POD 2220 Clinical Podiatric Biomechanics and Surgery:** Covers lower extremity structural abnormalities as related to the compensating foot and lower limb. More complex orthopedic and biomechanical pathologies are considered and the relationship and interaction of mechanical, surgical and medical approaches are introduced. The course is designed to foster an appreciation for the biomechanical principles associated with complex foot and ankle surgery. (6.5 credit hours)

**POD 2237 Summer Podiatric Medicine and Surgery Rotation:** This four-week end-of-second-year clinical rotation is designed to introduce the podiatric medical student to clinical patient management, clinical protocol, basic instrumentation and medical record recording. Students are required to complete a basic set of professional and clinical skills. (4.0 credit hours)

**POD 3205 Community Health:** Introduces the student to fundamental principles and concepts associated with health care delivery and practice management systems. An overview of health-related epidemiology, medical jurisprudence and community health issues are covered in this course. (2.0 credit hours)

**POD 3206 EBM Diagnostic Imaging:** The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious
Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

POD 3207 Emergency Medicine and Podiatric Trauma:
Students are introduced to various concepts regarding traumatic disorders of the lower extremity, including management of soft tissue injuries, fracture management and complications associated with traumatic injury. The emergency medicine component of the course reviews emergency and urgent-care situations that the podiatric medical specialist may encounter. (2.5 credit hours)

POD 3210 Basic Surgical and Medical Skills: Students learn principles of aseptic technique training according to national standards. These techniques include the surgical hand scrub, opening a sterile field, self and assisted gowning and gloving, open gloving, instrumentation identification and passing as well as sterile field presentation and maintenance. Students demonstrate these techniques under the direction of operating room nurses. Students also learn proper sterilization of and nomenclature for instruments. (1.0 credit hour)

POD 3217A Podiatric Medicine and Surgery Rotations: Third-year students will complete 28 weeks of podiatric medical and surgical rotations. These rotations take place at the Des Moines University Foot and Ankle Clinic and the VA Central Iowa Health Care System. Students will participate in podiatric medical and surgical care in both inpatient and outpatient centers. (14.0 credit hours)

POD 3217B Podiatric Medicine and Surgery Rotations: Third-year students will complete 28 weeks of podiatric medical and surgical rotations. These rotations take place at the Des Moines University Foot and Ankle Clinic and the VA Central Iowa Health Care System. Students will participate in podiatric medical and surgical care in both inpatient and outpatient centers. (14.0 credit hours)

POD 3221 EBM Rearfoot Pathology: The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

POD 3224 EBM Forefoot Pathology: The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

POD 3225 EBM Infectious Disease: The third-year Evidence-Based Podiatric Medicine and Surgery curriculum is comprised of four courses: Infectious Disease, Rearfoot Pathology, Forefoot Pathology, and Diagnostic Imaging. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems in these clinical units. Students must ascertain key components of the patient history and physical examination to recommend appropriate diagnostic tests leading to a condition diagnosis and implementation of a management plan of action and the consequences of those actions. Students will apply evidence-based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. (1.5 credit hours)

POD 3227 Emergency Medicine Simulation Rotation: This two-week third-year rotation is designed to expose students’ to concepts and techniques related to emergency medicine patient management. The rotation provides
experience in history and physical examination, interpreting studies, CPR and identifying pathology related to cardiovascular, infectious disease, respiratory and orthopedic conditions. An important component of this rotation involves working as a member of a medical team. (1.0 credit hour)

POD 3228 Vascular Surgery Rotation: This two-week third-year rotation in vascular surgery is designed to provide students with a clinical experience related to history and physical examination techniques and management of patients with vascular pathology. (2.0 credit hours)

POD 3229 Internal Medicine Rotation: This two-week rotation in internal medicine is designed to expose third-year students to concepts and techniques presented in the preclinical curriculum. Concepts include performing complete history and physical examinations, developing differential diagnosis lists and formulating appropriate treatment plans. (2.0 credit hours)

POD 3231 Community-Based Podiatric Medicine and Surgery Rotation: This four-week rotation is designed to provide third-year students with a clinical experience in podiatric medicine, podiatric radiology, podiatric surgery and biomechanics under the supervision of a community-based podiatric physician in an office setting. (4.0 credit hours)

POD 4217 Clinical Skills Assessment: This course is designed to help the student develop into a well-rounded fourth-year student physician who is ready to enter residency training. The course will allow students to demonstrate successful completion of selected skills by utilizing a portfolio to evaluate three clinical cases and have core faculty sign off on various clinical competencies after demonstration. (1.0 credit hour)

PPDPT 1602 Individual and Family Aspects of Care: Individual characteristics of the patient/client that need to be taken into consideration in the management of a patient/client’s care. Family and cultural dynamics are also explored in relation to their impact on the health and health care decisions of a patient/client. Another component of this course is the physical therapist’s role with respect to issues of violence and abuse. (2.0 credit hours)

PPDPT 1603 Clinical Decision Making: Presents models for clinical decision-making including the patient care management model as presented in the Guide to Physical Therapist Practice. Evidence-based practice and the critical evaluation of research related to health care practice is a component of this course. (3.0 credit hours)

PPDPT 1604 Health Promotion and Prevention: Concentrates on the health promotion and prevention needs of a diverse population. Content includes theories on wellness, health behavior models, motivational strategies and the provision of services by physical therapists that promote the health and quality of life of individuals and groups. Epidemiology is introduced for the purposes of planning health promotion and prevention services as well as the impact of nutrition on health. Standardized tests and measures, interpretation of data collected, and development of a plan of care related to health promotion and prevention are primary components of this course. (3.0 credit hours)

PPDPT 1606 Motor Control Theory and Analysis: Students investigate traditional and contemporary theories of motor control and their application to movement in this course. Opportunities to review current technology utilized in motion analysis is considered with regards to clinical applications. Kinetic and kinematic data from motion analysis devices are incorporated into movement analysis. Emerging evidence in motor control is discussed. (2.0 credit hours)

PPDPT 1607 Clinical Applications: In this culminating course, students select an individual capstone project and apply knowledge gained throughout the PPDPT program. Students demonstrate the efficient use of evidence-based resources and effective decision-making in developing the capstone project. Students use self-reflection to plan for professional development following program completion. (3.0 credit hours)
**PPDPT 1609 Manual Therapy Interventions:** This course investigates the use of manual therapy interventions in neuromusculoskeletal physical therapy patient management. The course will focus on evidence-based interventions encompassing all regions of the body and as applicable to diverse patient populations. Material will be presented using both online and on-campus formats. Participants will be asked to learn the basic concepts of manual therapy interventions and to demonstrate their knowledge via the completion of assignments, discussion board dialogue, and laboratory participation. The laboratory will be held on the Des Moines University campus over two days and will focus on psychomotor skills based on the online course content. Individuals unable to attend the laboratory may complete an optional assignment if recent laboratory or advanced training in manual therapy is demonstrated. (2.0 credit hours)

**PPDPT 1612 Clinical Imaging:** This course is organized into units covering the technical and interpretive aspects of diagnostic imaging/radiology results related to diagnoses commonly treated by physical therapists. The focus is on the musculoskeletal system including skeletal development and growth. The use of clinical decision rules/guidelines will be incorporated. Additional units address imaging associated with neurological, vascular and pulmonary disorders. (1.5 credit hours)

**PPDPT 1613 Pharmacology:** This course introduces the basic principles of pharmacodynamics and pharmacokinetics of various drug classes. These principles provide a foundation in understanding the action, adverse effects and clinical usefulness of key drug classes seen in the rehabilitation setting. Instruction combines the use of pharmacology readings and case-based scenarios to illustrate and highlight the relevance of agents to the practice of physical therapy. (1.5 credit hours)

**PPDPT 1614 Clinical Medicine Systems I:** This course addresses some of the underlying aspects of disease processes with an emphasis on differential diagnosis. The effect of immune, endocrine and metabolic disorders on the body’s homeostasis will be a primary focus. An introduction to the role genetics plays in the development of disease and subsequent treatment is included. The use of data obtained from clinical lab and imaging studies in the screening process in order to determine appropriate plans of care is incorporated. Consideration will be given to psychosocial and spiritual beliefs influence on health and illness. This course provides a foundation for the subsequent Clinical Medicine Systems II course. (2.0 credit hours)

**PPDPT 1615 Clinical Medicine Systems II:** This course is the follow-up to Clinical Medicine Systems I. It addresses the pathophysiology and medical management of common conditions that occur in primary organ systems. Content will include etiology, epidemiology, tests and measures, and interventions related to the cardiopulmonary, gastrointestinal, renal, reproductive and integumentary systems. There will be a focus on understanding the human response to disease and the implications for the physical therapist’s management of patient care. (2.0 credit hours)

**PSYC 1105 Behavioral Medicine:** Designed to introduce the student to the psychological, social, behavioral and cultural basis of clinical medicine, this course focuses on common patient problems and the circumstances that evoke important behavioral/emotional responses. The course serves as an introduction to managing these problems and assists the student in more effectively communicating with patients and peers. Students are introduced to theories of human development throughout the individual and family life cycle, and key transitions that may create individual/family stress. Students should develop increased insight into their own personal functioning and feelings. Each student participates in the Standardized Performance Assessment Laboratory (SPAL) with the goal of practicing communication skills introduced in the course. (2.0 credit hours)

**PSYC 2107 Psychiatry:** This is a clinical case-based course designed to introduce the student to the field of psychiatry, with a focus on learning basic psychiatric nomenclature, important defense mechanisms, methods of assessment and diagnosis using the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition – Text Revision, psychotherapeutic and pharmacological treatment modalities for common mental disorders, and psychiatric risk assessment. The student also is introduced to the stigmatization of persons seeking mental health services. (2.5 credit hours)

**RESCH 2100 Mentored Research Experience:** This course is designed to introduce students to conducting research in lab and clinical settings. Students must have a faculty mentor agree to supervise them prior to enrolling in the course. The specific goals for the research project
will be determined along with the faculty mentor. (1.0 credit hour)

**SYST 2101 Cardiovascular System:** This course is a combination of didactic lectures and case presentations that provides a thorough exposure to both the basic science and clinical aspects of cardiovascular disease. (3.0 credit hours)

**SYST 2103 Hematology:** The course is designed to provide students with a thorough exposure to hematology, emphasizing basic science and clinical aspects pertinent to understanding normal function, pathophysiological derangements resulting in disease and appropriate diagnostic and treatment protocols utilized in addressing diseased states. (3.0 credit hours)

**SYST 2105 Renal System:** Provides the student with a foundation of basic and clinical aspects of the renal system through lectures and case presentations. An overview of current diagnosis and management of renal diseases will be presented. (3.0 credit hours)

**SYST 2106 Endocrine System:** Provides the student an overview of the basic science, the diagnosis and the management of common endocrine diseases. Clinical case presentations will illustrate common endocrine disorders. (2.5 credit hours)

**SYST 2111 Gastrointestinal (GI) System:** This course provides an in-depth study of gastrointestinal pathologies and their prevention and management so that the student receives an appropriate foundation for correlation with clinical clerkships. This is achieved through the integration of the basic and clinical sciences. (3.0 credit hours)

**SYST 2114 Respiratory System:** This course provides the student with an overview of the basic science and clinical aspects of the normal and pathophysiological functions of the respiratory system that will enable the student to recognize, understand, diagnose and treat the common clinical respiratory system conditions/diseases and to promote preventive interventions relevant to those common conditions. (3.0 credit hours)

**SYST 2116A Obstetrics/Gynecology Simulation Lab:** A comprehensive introduction to human reproduction with particular emphasis on gynecology, obstetrics and women’s health. (0.0 credit hours)

**SYST 2116B Obstetrics/Gynecology:** A comprehensive introduction to human reproduction with particular emphasis on gynecology, obstetrics and women’s health. (2.5 credit hours)

**SYST 2114 Neurology:** Provides the student with a working knowledge of the neurological problems most commonly seen in general practice and a familiarity with the temporal profile of a variety of neurologic diseases commonly encountered by a primary care physician. Students will learn to recognize a patient with a neurologic disorder, localize a lesion within the nervous system, generate a defensible differential diagnosis, initiate an appropriate diagnostic work-up and a rational management therapy. (2.0 credit hours)

**SYST 2201 Clinical Skills 1: Cardio/Pulmonary:** The course, along with pertinent previous basic and clinical science material, will provide an overall view of the heart, pulmonary and circulatory systems. It is the intent to establish a firm foundation on which to base new knowledge, which will be constantly accumulating throughout the student’s professional career. The first portion of the course will concentrate on the cardiovascular system, diseases and diagnosis. The last portion will concentrate on the pulmonary system, diseases and diagnostic methods. Diagnosis and management of the patient in both the office and the hospital will be considered in the lectures presented. (4.0 credit hours)

**SYST 2205 Clinical Skills 4: Nephrology/GI/Nutrition:** Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of renal, gastrointestinal and nutritional disorders that will be seen in podiatric practice. The renal section of the course provides a description of the structure and function of the renal system and of the interrelations with other clinical systems. Common renal diseases will be discussed with emphasis on podiatric manifestations. The gastrointestinal system portion of the course introduces the podiatric medical student to the principles of history taking and physical examination of patients with gastrointestinal disorders with emphasis on podiatric manifestations related to the gastrointestinal system. The nutritional system portion of the course will review the macro and micronutrient components of the typical American diet and the relationship between these and the maintenance of health and the prevention/treatment of the diseases that are relevant to a podiatric physician. (3.5 credit hours)
SYST 2206 Clinical Skills 2: Endocrine/Hematology: Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of endocrine/human reproduction and hematologic disorders that will be seen in podiatric practice. The endocrine/human reproduction section is designed to give the student of podiatric medicine an understanding of normal and abnormal function of the endocrine system. This understanding is important due to the clinical manifestations seen in the lower extremity. The hematology section is designed to assist the student understand the physician’s approach to anemia, white blood cell disorders and bleeding disorders. The student will understand the many factors that contribute to thrombosis. In addition, the student will have an understanding of the use of blood by-products and the labs and tests associated with their use for patient care. (2.0 credit hours)

SYST 2241 Clinical Skills 3: Neurology/Behavioral Medicine: Provides the student with the necessary foundation through basic and clinical sciences to recognize the manifestations of neurological and behavioral disorders that will be seen in podiatric practice. The student will recognize normal and abnormal functioning of the central and peripheral nervous systems, as well as common behavioral problems and the circumstances that evoke behavioral/emotional responses. Although neurology has historically concerned itself with the organic basis of diseases and behavioral medicine with “functional” diseases that do not have a structural basis, the two disciplines are now more closely aligned. The course will focus on the underlying neuromotor disturbances that contribute to disease and explore the relationship between behavioral problems, psychiatric diagnoses and patient cooperation. (3.0 credit hours)

SYST 2244 Lower Extremity Dermatology: This course provides the podiatric medical student with an understanding of diagnosis and management skills for dermatological conditions affecting the lower extremity and the systemic diseases associated with skin and skin-related structures. (2.0 credit hours)

Academic Policies

Academic Progress Committee

Each academic program at Des Moines University has an Academic Progress Committee (APC) charged with monitoring the academic progress of its students. This charge includes the execution of each program’s academic policies as well as monitoring the affective and professional behaviors of students in clinical training.

The APC is a faculty committee that meets at regular intervals to assess student performance and works collaboratively with the Dean's Office of the appropriate college, the student's advisor, and other student support service departments across campus. The APC communicates in writing with students for whom they have concern about their interim performance; such communication will include intervention recommendations or requirements. The APC is the final decision-making body regarding enrollment status changes, probation, suspension, or dismissal for academic reasons.

Academic Records/FERPA/Transcripts and Confidentiality

Students who are or have been in attendance at the University have certain rights to request, inspect, review and challenge the records maintained by the institution under the provisions of the Family Educational Rights and Privacy Act of 1974.

Any student at the University may review the complete text of the Family Educational Rights and Privacy Act of 1974 and implementing federal regulations at the Registrar's Office. Questions regarding the act or student rights thereunder should be directed to the Registrar.

The University will, on request, provide to any student the content of his or her educational records to ensure that the information is accurate and is not misleading or otherwise in violation of the privacy or other rights of the student. It is the policy of the University to comply fully with the
rules, regulations and intent of Section 438 of the Family Educational Rights and Privacy Act of 1974, otherwise known as the Buckley Amendment. Notification of Rights: Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. They are:

1. The right to inspect and review the student’s education records within 45 days of the day the University receives a request for access. Students should submit to a University official a written request that identifies the record(s) they wish to inspect. If the records are not maintained by that official, he or she will advise the student of the correct official to whom the request should be addressed. The appropriate University official will make arrangements for access and notify the student of the time and place where the records may be inspected.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent the FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research or support staff position (including security and health staff); a person or company with whom the University has contracted (such as an attorney, auditor or collection agent); a person serving on the grievance committee or assisting another school official in performing his/her duties. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his/her professional responsibility. The second exception that permits disclosure without consent is “directory information.” Data considered by DMU to be directory information is:

   a. Name, local address, telephone number
   b. DMU email address
   c. Major field(s) of study
   d. Year in program(s)
   e. Dates of attendance
   f. Enrollment status
   g. Degrees and awards received
   h. Participation in officially recognized activities

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by DMU to comply with requirements of FERPA by writing to:

   Family Policy Compliance Office
   U.S. Department of Education
   600 Independence Avenue SW
   Washington, D.C. 20202-4605

Written consent of the student is required for disclosure of other personally identifiable information from the education records of the student, other than directory information, except for disclosure of such other records to (1) University officials, including faculty, who have educational interests; (2) officials of another school or school system in which the student seeks or intends to enroll; (3) certain authorized representatives of state and federal agencies; (4) persons and/or organizations designated by the University to perform specified management or administrative tasks; and (5) lenders or lending agencies to whom a student has applied for financial aid, as may be necessary for such purposes. Directors of medical education requiring information for internship recommendations must submit a written request to the Registrar’s Office.

A written request by the student is required for each transcript. Transcripts will not be issued to, or on behalf of, any student or graduate who has delinquent financial obligations to the University. The Registrar’s Office maintains student records, including transcripts,
permanently. Additional information regarding submitting a request is available on the Registrar's webpage.

Additional information regarding access to student records is included in the Student Handbook.

**Grading**

**Grading System**

Each academic program measures academic performance through a letter grade (4.0) scale. Course grades are determined by an overall percentage grade that is converted to a letter grade. Programs that include clinical experiences issue grades for those courses with a pass (P) or fail (F). All required courses and clinical experiences must be successfully completed for graduation.

**Incomplete (I) Grade**

The grade of “I” (Incomplete) indicates satisfactory completion of at least half (didactic) or three-fourths (non-didactic, i.e., clinical rotations, internships, capstone courses) of a course and a small fraction of work remains to be completed, such as the final examination, paper, or assignments due to illness or some other unique or extraordinary circumstances beyond the student’s control. A student receiving an “I” must complete all requirements prior to the agreed upon date. If the requirements are not completed within the specified time, no credit will be given and the “I” grade will convert to an “F.” Faculty may include specific course or program requirements regarding the timeframe in which a student is eligible to petition for an “I” grade in their course syllabus. If not explicitly stated in the syllabus, the student will need to verify the eligibility date to petition for an “I” grade with the Course Director or Coordinator.

**Grade Appeal Policy**

A Grade Appeal Policy, developed by faculty, provides a structured mechanism to protect students and faculty when a student disputes a final course grade. It is intended to balance the right of students to a grading system that is free from inaccurate, unfair, arbitrary or capricious evaluation, while supporting the right of faculty to determine course criteria and grades.

The only acceptable grounds for appealing a final course grade are:

- The course grade was assigned on a basis other than performance in the course; or
- Course faculty used unfair or unequal application of grading standards, including application of grading criteria to a student or group of students in a manner that treated them differently than other students in the same class; or
- The grade was the result of unfair or unannounced alterations of assignments, grading criteria, or computational processes; or
- The student disputes the computation of the final grade or believes the grade was incorrectly transmitted to the Registrar.

**Professional Integrity Code**

The Professional Integrity Code reflects values to guide students in their professional development. Since the Code is supported by the entire Des Moines University community, it is very important that students and all DMU employees embrace and adhere to the principles and practices of the Code. The values encompassed within the Code include honesty, accountability, collaboration and inclusiveness.

**Integrity Committee**

The Integrity Committee is charged with determining whether or not a violation of the Professional Integrity Code has occurred and, if so, imposing the appropriate sanction in cases brought before the Committee. In situations where the Respondent acknowledges responsibility for a violation, the Integrity Committee will deliberate to determine the appropriate sanction. Sanctions can include an educational sanction, verbal or written warning, loss of privileges, restitution, disciplinary probation, suspension, dismissal, and/or a no-contact directive.

The Committee is composed of six faculty members, one of whom serves as Chair. The Chief Compliance Officer serves as a standing, ex-officio member with vote. Information regarding the Committee and its procedures is outlined within the Student Handbook.
Reinstatement Procedure
A student who has previously withdrawn from an academic program or been administratively dropped based upon program guidelines, may petition to be reinstated in the academic program. A procedure and accompanying form regarding this process is available on the Registrar’s webpage.

Registration
To complete registration requirements, students must:

- Complete an admissions file, including all official transcripts, immunizations, health records, and test scores as required by the program.
- Complete all online registration forms and processes for the upcoming term.
- Pay tuition and fees. Students with a balance from the previous term will not be permitted further registration.

Additional information regarding registration is outlined within the Student Handbook.

Religious Holidays
The administration and faculty are sensitive to the diverse religious affiliations of students. If an examination or other University activity is scheduled on the same day as a religious holiday, the student should contact the appropriate faculty member to request other arrangements to complete the scheduled activity.

Withdrawal
Application for voluntary withdrawal from the University must be submitted in writing to the Program Director and/or Dean. An exit interview is required before withdrawal or transfer.

The Dean, or their designee, may place a student on leave of absence or grant a request for leave of absence due to health problems, tragedy in the immediate family, unexpected financial setback or other reasons agreed upon in consultation with the Academic Progress Committee.

Course Withdrawal
During the term drop/add period for the MHA, MPH and PPDPT programs, students may drop a course and not incur a tuition or fee charge for the course. Drop/add period dates for each term are published on the term course calendar and in the course syllabus. If these dates conflict, the drop/add date published on the calendar will take precedence.

Admissions

Nondiscrimination
Des Moines University does not discriminate on the basis of race, color, national origin, ethnicity, creed, religion, age, disability, sex, gender identity, sexual orientation, pregnancy, veteran status, genetic information and other characteristics protected by law in admission to its academic programs or in access to services and activities.

The University complies with the requirements of the Americans with Disabilities Act, the Rehabilitation Act, the Iowa Civil Rights Act and other laws relating to the accommodations of disabilities in its educational programming. Comprehensive information is necessary to allow University officials to understand the nature, extent and functional limitations of a disability which affects a student’s participation in educational programming and to develop reasonable accommodations for such a disability. No accommodations in educational programming will be provided before the existence of a disability is established pursuant to this policy. The mere assertion of such a disability by a student or a family member is insufficient to establish the existence of a disability. Similarly, a prior history of accommodation does not justify accommodations without the establishment of a current disability. The Center for Teaching and Learning (CTL) reviews all petitions for accommodations.

Misrepresentation
Misrepresentation in, or omission from, admission credentials, particularly information concerning previous felony or misdemeanor convictions, will constitute improper behavior under the Professional Integrity Code.
outlined in the Student Handbook and will be grounds for dismissal.

**Multiple Applications**
First-time entering students may apply to only one clinical program at a time. Multiple college or program applications will not be accepted or processed. Participation in the dual degree option is the only exception.

Enrolled students in the final year of their respective programs who anticipate completion of a DMU degree may apply for admission to another University program. If accepted, students are expected to complete the full curriculum in which they are currently enrolled. Students enrolled in a DMU program may not transfer to another program. In order to be considered for admission to another program, students must first withdraw from their current program.

**Non-U.S. Citizens and Permanent Residents**
International students applying for admission to Des Moines University are eligible for online study only; therefore qualified international students may be considered for admission to only the following programs:

- Post-professional Doctor of Physical Therapy (PPDPT)
- Master of Public Health (MPH)

To be considered for any other program of study at DMU, you must be either a U.S. Citizen or U.S. legal permanent resident. Applicants who are legal permanent residents of the U.S. are required to provide a copy of their permanent resident card (“green card”) prior to admission.

**Dual Degree Program**
Students enrolling in either the osteopathic medicine or podiatric medicine programs may be eligible for a dual-degree option leading to a Master of Public Health, a Master of Health Care Administration, Master of Science in Biomedical Science or Master of Science in Anatomy. Students enrolling in the physical therapy program may be eligible for a dual-degree option leading to a Master of Public Health or a Master of Health Care Administration. This option enables students to combine their clinical knowledge and practice with expertise gained in the master’s degree program, helping their patients and enhancing their professional options and career. All of the course work in the Master of Public Health program can be completed online while the majority of the Master of Health Care Administration program may be completed online.

**Procedures for Accepted Students**
Students accepted for admission to any program must:

- Submit a non-refundable seat deposit which is applied toward tuition as follows:
  - Doctor of Osteopathic Medicine Program: $1,000 (installment payments)
  - Master of Science in Anatomy Program: $250
  - Master of Science in Biomedical Sciences Program: $250
  - Doctor of Podiatric Medicine Program: $500
  - Master of Physician Assistant Studies Program: $500
  - Master of Public Health Program: $250
  - Master of Health Care Administration Program: $250
  - Doctor of Physical Therapy Program: $250

- Submit an official transcript from each college or university attended.

- Complete any required courses and a bachelor’s degree from a regionally accredited institution prior to matriculation.

- Complete the Technical Standards for Admission, Academic Promotion and Graduation form.

- Complete a criminal background check through the DMU preferred vendor. Results must be released to DMU prior to matriculation. The cost of this process will be paid by the applicant. Students are obligated to disclose any additional charges and convictions which occur following completion of the initial criminal background check and will be required to complete annual criminal background checks while enrolled at
DMU. Admission to the program may be revoked if misrepresentations or omissions from the application are noted in the background check.

- Register for classes on the designated date.

Students accepted for admission to the DO, MSA, MSBS, DPM, PA and DPT programs must also:

- Complete a physical examination and an immunization report before registration. Students admitted shortly before classes begin will have four weeks to complete this requirement. A complete listing of required immunizations is supplied to students before orientation.

- Provide proof of health insurance coverage at annual registration that meets minimum requirements as specified within DMU’s Student Health Insurance Requirement’s Policy. Students must verify coverage through a parent’s or spouse’s group plan, a national government plan, an individual plan that meets the hard waiver criteria as defined in DMU’s Student Health Insurance Requirement’s Policy or a plan coordinated through DMU.

## Tuition, Financial Aid and Scholarships

Tuition, fees and policies for the University's education programs are subject to change. Current tuition and fees, payment policies and procedures may be viewed on the Accounting webpage.

Tuition is refundable in accordance with the schedules published in this section. No other refund schedule will apply. The University’s Board of Trustees reserves the right to change tuition and fees at any time.

### Payment of Tuition and Fees

All communication from the Accounting Office regarding charges, credits and outstanding balances is sent to the student’s DMU email account. Students access their statement of account online by going to Pulse and selecting Accounting, then My Account at DMU. The University does not mail paper statements. For further information regarding billing, payments or the online system, please contact the Accounting Office at 515-271-1473, 515-271-1530, or 1-800-240-2767, ext. 1473 or ext. 1530.

Tuition, fees and other balances reflected as University accounts receivable are to be paid in the Accounting Office, which is located on the 4th floor of the Academic Center, Room 417. Please make checks payable to Des Moines University (DMU). Checks may be mailed to:

Attn: Accounting
Des Moines University
3200 Grand Avenue
Des Moines, Iowa 50312-4198

Acceptable forms of payments are: cash, eCheck, check (personal, loan, scholarship, certified and money order) and credit card. DMU accepts Visa, MasterCard, Discover and American Express. Credit card payment is only accepted on the portion of tuition not covered by financial aid (including loan funds and/or scholarships). To make a credit card or eCheck payment, please complete the secure online payment form. All payments received in the Accounting Office after 2 p.m. will be posted to the account on the next business day.

Tuition, fees and their associated due dates are available for each program on the website as follows:

- Doctor of Osteopathic Medicine
- Master of Science in Anatomy
- Master of Science in Biomedical Sciences
- Doctor of Podiatric Medicine
- Master of Science in Physician Assistant Studies
- Master of Public Health
- Master of Health Care Administration
- Doctor of Physical Therapy
- Post-Professional Doctor of Physical Therapy

Information pertaining to dual degree tuition and fees may be also be accessed on the website.

Governed by federal regulations, student loan disbursements will be applied to student tuition accounts within three working days after DMU receives disbursements from lenders or after DMU receives endorsed lender checks.

Failure to pay an account in full by the tuition due date will result in the following:

- A hold will be placed on the student account.
  Students will be asked to sign an
Acknowledgement of Financial Responsibility if one is not already on file. If an Acknowledgement of Financial Responsibility is not signed, the student will be placed on an administrative leave of absence.

- The account will be viewed as having a delinquent status. Students will not be permitted the following privileges: registration, admission to classes, transcripts and a diploma.
- Late fees will be applied to the student’s account per the fee schedule.

All communication from the Accounting Office regarding charges, credits and outstanding balances is sent to the student’s DMU email account.

### Tuition Charges for Extended Pathways to Success

The Extended Pathways to Success program allows D.O. students experiencing academic difficulties or personal challenges the opportunity to reduce their course load and complete the degree in five years. This option charges a total of four years tuition for the five years scheduled to complete the program. For students entering the program during year 1 of the curriculum, tuition for years 1, 2, and 3 is billed at two-thirds the regular tuition rate in effect for the academic year. For students entering the program during year 2 of the curriculum, tuition for year 1 is billed at the regular tuition rate and tuition for years 2 and 3 is billed at one-half the regular tuition rate in effect for the academic year. In both cases, tuition for years 4 and 5 is billed at the regular tuition rate in effect for the academic year.

Extended Pathways to Success is a full-time, extended medical school curriculum. A student participating in the program is full-time for the maintenance of student loans and deferment of prior student loans.

### Leave of Absence Implications

When a student is granted a leave of absence, federal student loan (Title IV) funds may be subject to the Return of Funds Policy. Please refer to the Financial Aid Return of Funds Policy section.

When a student is approved to return from a leave of absence within one year of the leave of absence start date, the following will apply.

- Upon return, tuition and fees will be billed at the current year’s approved rate. Students in programs that bill a flat tuition rate will receive credit for tuition originally retained by DMU for each academic year.
- Tuition and fees are due when the student registers or the first day of class, whichever comes first. Students returning from leaves considered as Unapproved by the Department of Education will be charged the course repeat fee for any applicable courses.

### Suspension Implications

Tuition and fees will be billed at the current academic year’s approved rate and are due when the student registers or the first day of class, whichever comes first. If the student returns within the first 12 months after suspension, tuition credit will be granted for tuition originally retained by DMU for each academic year. For example, if a student is suspended after completing the first half of a clinical year (assume the annual tuition is $40,000 and the student paid $20,000 in tuition), upon returning the following academic year, the student will be billed the current annual tuition rate offset by the $20,000 of tuition paid the previous year.

### Return of Computer Equipment

A student who withdraws, transfers, is suspended or is dismissed must return all DMU-issued computer equipment to the Information Technology Services department. Failure to return any equipment by the given deadline will result in an automatic hold on all records, including the academic transcript. The student will also be billed for the equipment as per the device agreement originally signed.

### Financial Aid

The University attempts to make adequate financial assistance available to all students in all programs within the limits of each student budget and the availability of financial aid. Each of our programs has a carefully considered and comprehensive student expense budget that is designed to cover tuition, program costs and reasonable living expenses.

Budgets are designed for the student only and are not intended to cover family living expenses. If married, the
University expects the student’s spouse to be a major contributor to family expenses. If a student has children for whom their spouse must be a caregiver and cannot work, or if they are a single parent, the student must arrange for outside financial support in addition to financial aid.

The University takes seriously its responsibility to provide a reasonable expense budget and to monitor long-term student debt. Students will not be allowed unlimited borrowing simply because loan programs may be available. Cost of attendance budgets are available for each program on the website.

Students Receiving Financial Aid

The Accounting Office will work with the Financial Aid Office to verify the amount of loan money the student will be receiving. Loan funds will be applied to the student’s tuition account for all courses for the term before any living expense funds are processed.

Payment, for any portion not covered by loan disbursement, is due by 2 p.m. of the first day of the term. Late fees will be applied per the fee schedule until full payment is received.

Satisfactory Academic Progress Policy

This policy is used to determine eligibility for Federal Financial Aid only. Academic programs may have different academic standards and criteria to maintain academic eligibility within the program.

Federal regulations (CFR 668- Student Assistance General provisions, Sections 668.16, 668.32, 668.34, and 668.42) state that all students who receive financial assistance from Title IV programs are required to maintain satisfactory academic progress (SAP) according to both qualitative and quantitative measures established by the institution.

Eligibility Requirements

GPA (qualitative measure): Students are expected to make continuous and successful progress toward the requirements for graduation throughout the curriculum. Students must earn a grade point average (GPA) of 2.0 or higher to maintain financial aid eligibility. At the end of an evaluation period, if a student’s GPA drops below a 2.0, the student will become ineligible for financial aid. Grades of A, B, C, D, F, and F/C will be factored into the GPA calculation. Grades of “I” and “W” do not affect GPA.

Time frame for completion (quantitative measure): Students must complete their respective program within a time frame no longer than 150% of the published length of the program. For clinical programs the published length will be evaluated by years. For example, a four-year program must be completed within a six-year time frame. For all non-clinical programs the published length of programs may not exceed 150% of the required credit hours for the program, see below.

<table>
<thead>
<tr>
<th>Published Length</th>
<th>150% limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MHA: Matriculated prior Fall 2012: 45.0 credit hours</td>
<td>68.0 credit hours</td>
</tr>
<tr>
<td>Matriculated after Fall 2012: 48.0 credit hours</td>
<td>72.0 credit hours</td>
</tr>
<tr>
<td>MPH: 45.0 credit hours</td>
<td>68.0 credit hours</td>
</tr>
<tr>
<td>MSA: 40.5 credit hours</td>
<td>61.0 credit hours</td>
</tr>
<tr>
<td>MSBS: 49.0/49.5 credit hours</td>
<td>74.0 credit hours</td>
</tr>
</tbody>
</table>

Pace (quantitative measure): Students must progress through their program to ensure that they will graduate within the maximum timeframe. Students are required to complete 67% of all attempted credit hours. The calculation is made as follows: earned credit hours ÷ attempted credit hours = completion rate. Grades of A, B, C, and D are counted as hours attempted and earned. Grades of I, W, WF, WP, and F are counted as attempted hours only (not earned hours). If a student’s cumulative completion rate drops below 67% at the end of an evaluation period, the student will become ineligible for financial aid.

Evaluation

Clinical programs (DO, DPM, PA, and DPT) will be evaluated on an annual basis at the end of each academic year. Any student who is not meeting SAP eligibility requirements will be placed on Financial Aid Suspension and will not be eligible for financial aid. An appeal may be filed with the Financial Aid Office, please see the Appeals section of the policy below.

Non-clinical programs (MHA, MPH, PPDPT, MSA, and MSBS) will be evaluated after each academic term is completed, including summer term. Any student who is
not meeting SAP eligibility will be placed on Financial Aid Warning status and remain eligible for financial aid for one term. After the Warning period is completed, any student who is still not meeting SAP eligibility will be placed on Financial Aid Suspension and will not be eligible for financial aid. An appeal may be filed with the Financial Aid Office, please see the Appeals section of the policy below.

Regaining Financial Aid Eligibility
Any student who has become ineligible to receive federal financial aid due to quantitative (low completion rate) or qualitative (low GPA) may regain eligibility once they meet both the quantitative and qualitative SAP standards listed in this policy.

Appeals
Students who fail to meet SAP requirements may reestablish eligibility by submitting a SAP appeal to the Financial Aid Office. The complete appeal will contain: 1) a SAP appeal form, 2) a written statement describing the student’s mitigating circumstances and what has changed to improve academic performance, 3) supporting documentation, and 4) an academic improvement plan approved by the student’s advisor. Incomplete appeals will not be accepted or reviewed.

Note: the written statement that will accompany the appeal form must be typed and signed by the student, and it must clearly articulate how mitigating circumstances had a direct and adverse impact on the student’s academic performance. The statement must also include that the circumstances that led to the student’s inability to maintain satisfactory academic progress have improved and will not prevent the student from making SAP by the next evaluation period. The statement should be long enough to adequately describe the student’s mitigating circumstances.

Examples of mitigating circumstances and acceptable supporting documentation include but are not limited to:

- Serious illness of the student or a close family member - statement from physician
- Death of a close family member - statement from a minister or family member and a copy of the death certificate or obituary
- Disruptive personal issues - statements from an attorney, counselor, minister, or unbiased third party, court documents, etc.

Appeals will be reviewed within seven business days from the date of receipt. Each student will be notified in writing the decision regarding his/her appeal. If an appeal is approved, the student will regain federal financial aid eligibility. If an appeal is denied, the student will remain ineligible for federal financial aid until they meet the SAP requirements on their own. Appeal decisions are final.

Academic Plans
All students who fail to make SAP and file appeals with the Financial Aid Office are required, as part of the appeal process, to complete an academic plan with their advisor. The form can be obtained for the Financial Aid Office and must be submitted with the Financial Aid Appeal form.

Financial Aid Probation
If an appeal is approved, the student will be placed on financial aid probation and have their federal financial aid eligibility reinstated for the time period specified on their academic plan. During the probationary period, the student will remain eligible for federal financial aid as long as they adhere to the academic plan submitted with their appeal. A student who fails to adhere to the requirements specified in their academic plan or fails to achieve minimum SAP eligibility standards by the end of the probationary period is considered ineligible to receive additional federal student aid funds. If a student is meeting the requirements of their academic plan, the student will remain eligible to receive funds as long as the student continues to meet those requirements.

*Any exceptions to this policy will be made on an individual basis and in compliance with all federal, state, and local regulations governing financial aid.

Return of Funds (Title IV Refund) Policy
When a student withdraws, is suspended, dismissed, placed on administrative leave of absence or is granted a University approved leave of absence for more than 180 days federal regulations require the University to calculate a possible return of Title IV funds to the student’s Title IV Loan program. Title IV includes Federal Direct Unsubsidized Stafford, Federal Direct Grad Plus and Perkins loans.

A return of funds calculation is based on how many days the student was actually enrolled during the payment
period. This is determined by how many days of the term the student completed (not including scheduled breaks over five days). Refunds are based on the effective date of the student’s separation from DMU.

If a student in the DO, DPM, PA or DPT program leaves before completing 60% of the payment period he/she will receive a pro-rata refund of institutional charges. If the separation date is after completion of more than 60% of the payment period, the student will not receive a refund. If a student in the MSA, MSBS, MHA, MPH or PPDPT program leaves after the drop date, the student will not receive a refund. This method will apply regardless of whether the student is a financial aid recipient or not.

Institutional charges are tuition and repeated course fees. Membership dues, health insurance premiums, fines and miscellaneous service fees are not included in a return of funds calculation. A return of funds is sent directly to the appropriate Title IV program in the order noted below. Money borrowed for living expenses must be repaid according to the terms of the promissory note.

**Distribution of Returned Funds**

Per current federal policy, DMU will distribute refunds of financial aid as follows:

1. Federal Direct Unsubsidized Stafford loan
2. Federal Perkins loan
3. Federal Direct Grad PLUS Loan
4. State, private or University aid
5. Student, if funds remain after paying the above.

**Example 1: Return of Funds Required** (for DO, DPM, PA or DPT program students)

The student begins a program on August 8 for a payment period that ends December 19. The payment period contains 134 days. The student then withdraws on October 2. DMU must calculate a possible return of funds. The student completed 56 days of the payment period (August 8 to October 2), or 41.8 percent of the payment period. Under federal rules, the student earned 41.8 percent of his/her financial aid. The University must return 58.2 percent of the Title IV aid to the student’s loans.

Federal Direct Unsubsidized Stafford Loan net aid disbursed $21,133.00
Total Title IV applied to charges $15,536.00
% student earned 41.8% or $6,494.00 (.418 x $15,536.00)
Amount returned by DMU $9,042.00 ($15,536.00 minus $6,494.00)
Amount returned to loans $9,042.00 to Unsubsidized Stafford Loan
Amount retained by DMU $6,494.00

**Example 2: No Return of Funds Required** (for DO, DPM, PA or DPT program students)

The student begins a program on August 8 that ends December 19. The payment period contains 134 days. The student withdraws on November 8, having completed 93 days in the payment period (August 8 to November 8), or 69.4 percent of the payment period. Under federal rules the student has earned all of the financial aid and no University refund is required.

Federal Direct Unsubsidized Stafford Loan total net disbursed $10,141.00
Title IV applied to charges $9,037.50
% Student earned 100%
Amount returned by school: None

**Other Consumer Information**

1. Title IV loan funds that could have been disbursed prior to separation: If the student leaves the program before all Title IV funds have been disbursed, he/she will be offered the opportunity to accept or decline that disbursement. (Please note: Federal Direct Loan Funds cannot be disbursed unless you qualify for late disbursement under federal regulations, but funds may be included in the calculation.)

2. Payment periods for each year and program are determined by the Registrar’s official calendar of starting and ending dates. No other calendar or dates will be used.

3. Determination of Withdrawal Date (or all other actions): The effective date of withdrawal, leave of absence, suspension or dismissal is determined by the Dean of each program based upon written notice received from the student. For a student who does not follow the University’s notification procedure, the Dean of the program will determine a withdrawal date based on available information.

4. Students who are subject to a return of funds calculation will receive a written, detailed explanation of DMU calculations. A student may appeal any calculation to the Financial Aid Office.
5. Master of Public Health, Master of Health Care Administration and Post-Professional Doctor of Physical Therapy programs have separate policies that cover dropping classes and refunds (see handbook for details). Any recipient of Title IV aid that does not complete the payment period will be subject to Title IV refund provisions. In the event a Title IV refund is necessary the refund may leave a balance on the student’s tuition account that must be paid.

6. A student must be at least half-time to qualify for financial aid. If a student drops a class and becomes less than half-time, he/she loses financial aid eligibility. This includes borrowing and deferment.

**Cancel or Return Loan Proceeds Policy**

If a student wishes to cancel all or a portion of a loan, he or she must inform the school in writing (either paper or electronic) within 14 days after receiving email notification that the funds have been credited to the students account. Upon receiving the request DMU will return the loan proceeds, cancel the loan, or do both. If a student wishes to cancel all or a portion of the loan after the 14 days they may send the funds directly to their loan servicer.

**Loans**

Information regarding loans can be found on the website.

**Scholarships and Loan Repayment Programs**

Information regarding scholarships and loan repayment programs can be found on the website.

**Payment of Financial Aid**

As a general rule, all loans must be disbursed in two equal installments (MHA, MPH, PPDPT and some Summer Term loans may qualify for a single disbursement). The following outline illustrates current regulations governing payment of aid:

**Loans**

- Federal Direct Unsubsidized Stafford Loan: The first half is disbursed at start of year, the second disbursement after approximately half of the academic year is completed. Governed by federal regulations, student loan disbursements will be applied to student tuition accounts within three working days after DMU receives EFT disbursements. Tuition account refunds are then made to students Contact accounting for details.
- Federal Grad PLUS Loan: Same as Stafford
- Super Primary Care Loan: Loan proceeds are used to pay back prior loans borrowed while at Des Moines University.
- Federal Perkins Loan: Same as Stafford

**Grants/Scholarships**

- Military Health Professions Scholarship Program (HPSP): Tuition is credited directly to the student’s tuition account. Monthly stipend, books and equipment allowance is paid directly to the student by the organization.
- Indian Health Service: Same as military
- National Health Service Corps: Same as military
- University Work Program: Wages paid directly to the student via EFT once per month
- Other scholarships are paid once or twice a year depending on the source.

**Notice of Awards**

An award letter sent by the Financial Aid Office notifies a student for these programs:

- Federal Direct Unsubsidized Stafford Loan
- Federal Direct Grad PLUS Loan
- Federal Perkins Loan
- Primary Care Loan
- Program Scholarships

An award letter directly from the granting agency notifies students for these programs:

- Military Health Professions Scholarship Program (HPSP)
- Indian Health Service Scholarship
- National Health Service Corps Scholarship
Campus Resources

Bookstore
Matthews Bookstore features a wide selection of reference books, medical instruments, and Des Moines University apparel and gifts. All Des Moines University course materials are readily available. As the members of the faculty submit their lists of required and recommended texts and supplies, the items are ordered by the bookstore staff so that they will be in stock when classes begin.

The store also features a Used Book Wall. This is an excellent source of supplemental material to required course books. The used books have been placed on the wall by students and are sold on a consignment basis.

Additional information is available on the store’s website.

Cafeteria
Summerfield's, the on-campus cafeteria, provides a morning coffee bar and lunch service. A self-service check out option is available outside of those hours. The cafeteria is located on the lower level of the Student Education Center.

Center for Teaching and Learning
Mission Statement: To support students to excel academically and faculty in their quest to improve and further develop their pedagogical knowledge and skills as teachers, scholars, and partners in educating our students to become highly competent and compassionate health professionals.

CTL (Center for Teaching and Learning), assists DMU students with a broad range of services and programs designed to help students achieve their academic and personal goals. Students will be provided with individual and group opportunities needed to become successful, active learners. The Center strives to assist students in developing independent learning techniques that will contribute to their academic success and lifelong learning skills. Additional information is available on the Center’s website.

Child Care Resources
Children's Garden is located at 3223 University Avenue, within three minutes of DMU. Children's Garden gives priority status for the enrollment of dependents of DMU students or employees. The University does not subsidize costs in any way and cannot guarantee availability of open slots. Additional information is available on the center's website.

Mercy Child Development Center (Bright Horizons) is located near downtown Des Moines. In addition to regular day care, they are available for emergency or drop-in care. Our partnership gives children of employees and students access to the center, but no discount or preferential placement on waiting lists.

Clubs and Organizations
Clubs, local chapters of national groups, honorary societies and other organizations offer students a chance to get involved. Students join these groups to meet peers, learn more about a professional organization, voice an opinion or volunteer in the community.

There are many meetings, fundraisers and events on campus. Student groups hold fundraisers, help local kids, attend national conventions, advocate for a cause and more. Some clubs and organizations are free to join and some have an annual fee. Several welcome all students and some are limited to students from a certain program. Most groups have a faculty or staff advisor.

Computing Resources
The University's Help Desk serves as a “one-stop” center for resolving campus technology problems, and also as a call-center for other technology resources on campus. All requests for IT support services are logged through the Help Desk.

Information Technology Services maintains computer accounts for all enrolled students. All incoming clinical students are assigned a laptop to use while they are enrolled full-time. These accounts allow access to the assigned laptop computers, DMU Student Pulse and Desire2Learn (D2L).

DMU Student Pulse contains general university and program specific announcements, links to valuable Library
Resources, schedule information, plus additional links useful to your education at DMU. Instructors may post supplemental course information, quizzes, grades and other helpful course information on the D2L System. D2L is generally available for student and instructor access 24 hours a day/7 days a week.

Continuing Medical Education Programs

DMU CME offers a variety of educational offerings, including but not limited to: department-specific and specialty-specific conferences, on-site and/or on-line, single or multi-topic seminars and workshops, standardized performance assessment lab, simulation lab, case presentations, regularly scheduled series, tumor boards, journal clubs, and enduring materials.

The educational offerings advance the prevention, diagnosis, and treatment of disease. Included among the educational offerings are updates in clinical medicine and basic science research, review of current or best practice recommendations for clinical care, learning modules in quality improvement, procedural and communication skills, development exercises, and professional development in academics, leadership and patient safety. Additional information is available on the website.

E-mail

Des Moines University assigns each student an e-mail account. This account is accessible through your DMU computer, Outlook, Student Pulse, and web-based mail. The University-assigned e-mail address will be used by departments and programs as the official communication link with students. The University does not maintain a list of alternate addresses and does not allow forwarding of your e-mail to other accounts.

Employment

Full-time students at Des Moines University may not have two concurrent full-time obligations; that is, a student cannot be enrolled full-time and also hold a full-time job. Students who find it necessary to engage in employment must do so with the realization that their classroom, laboratory and clinical commitments and schedules must be met. Failure to meet any academic responsibilities cannot be excused by citing employment commitments.

A limited number of part-time positions are available on campus to students in good academic standing. Part-time employment opportunities are available in two categories: teaching assistants or federal work study.

Faculty Advisor

All students are assigned an on-campus faculty advisor who provides assistance, advice and counsel, as needed, and who serves as a liaison between the student and the academic and administrative communities. Based upon students’ needs and requests, faculty advisors are available to monitor academic achievement and provide guidance and assistance in meeting academic requirements; serve as a mentor to the student; provide referral information to other student support/departments as necessary; and inform appropriate departments of student concerns.

Library

The University Library is located in the Student Education Center and has been designated as a Resource Library by the National Library of Medicine. The Library’s mission is to serve the University community, providing resources, research assistance, and a pleasant atmosphere conducive to study and research.

The Library provides a wide variety of resources, including books, e-books, and thousands of online journals. Students may also access a significant number of research databases, including PubMed, Scopus, UptoDate, ProQuest Public Health, Business Source Complete, Clinical Key, Anatomy.TV, and Visual DX. The Library also provides a campus-wide subscription to the RefWorks citation management system. To help students prepare for their board exams, the Library subscribes to Exam Master, which provides a test bank of questions that mimic those that students will see in the COMLEX, USMLE, and PANCE exams. Additional information is available on the Library’s website.

Multicultural Affairs

The University is committed to fostering a University community and campus climate that values and actively
supports inclusiveness and diversity. The office of Multicultural Affairs promotes supplemental programming designed to increase understanding and appreciation of diverse cultures, attempting to reduce prejudice, educate, and promote social justice.

DMU students have many opportunities and experiences to gain skill sets that will enhance and contribute to their personal and professional development. Part of that development is to learn and acquire cultural competency skills. It is important to recognize that becoming culturally competent is an ongoing process. Students are challenged to examine their own cultural biases and stereotypes throughout their educational journey. The end result will equip and empower students to be a part of a global health care system that responds appropriately to and is inclusive in delivering positive health outcomes for a multicultural society. Additional information is available on the office's website.

Parking

The University strives to maintain adequate on-campus parking for students. There is a one-time fee of $220 for a student parking registration sticker; the sticker must be displayed at all times when parked on campus. The Security Office issues and maintains parking registration. Additional information is outlined within the Student Handbook.

Student Assistance Program

As a complementary support to DMU’s on-campus Student Counseling Center, DMU offers all students the services of the Aetna Student Assistance Program (SAP). SAP provides 24/7 telephone assistance to help students manage issues after hours, or as a round-the-clock benefit for students studying on-line or off campus during clinical training. The assistance is confidential and students should feel comfortable reaching out to this resource as needs arise.

Student Counseling Center

All full-time students at Des Moines University, regardless of whether classes are taken at a distance or on the DMU campus, have access to support. All partners of qualifying students may participate in joint relationship counseling sessions when accompanying the enrolled student to the session. Because services are free and confidential, insurance is not billed for any counseling services obtained in the Student Counseling Center. Counseling records are kept separate from all other records on campus (including academic records and health records at Student Health Services). Additional information is available on the Center’s website.

Student Government

The Student Government Association (SGA) is the official governmental body for students enrolled in each College. The University has three SGA organizations reflecting the three distinct colleges. Upon admission, students in programs with full-time tuition (rather than hourly) are automatically members of the SGA, which is governed by elected representatives. The purpose of the SGAs, as defined in each organization’s respective by-laws, is to provide students with a forum to express ideas concerning the academic, social and service aspects of the college. Student activity fees are placed in the treasury for each SGA and decisions regarding the utilization of these funds are based on the vote or decision-making authority of the governing body.

Student Handbook

The Student Handbook is issued as a web-based publication to serve as a guide for students enrolled in Des Moines University. It contains links to general information, policies and procedures to ensure that students understand and are meeting expectations for graduation and successful careers in health care. Specific information for courses/systems is available in each course syllabus.

The policies and procedures are defined to ensure that students succeed academically and attain the professional standards necessary to practice as a health care professional. Therefore, students are responsible for becoming familiar with the contents of the handbook and for abiding by the Professional Integrity Code and all other policies and procedures. During the registration process, students sign a statement that they understand and agree to uphold all University and program regulations as stated in the Handbook and other University documents.
Student Health Insurance

DMU requires that students in all clinical programs, including MSA and MSBS, provide proof of health insurance coverage. This requirement insures that DMU students are compliant with hospital/clinic affiliation agreements specifying that students have health insurance coverage.

To meet this requirement, students must verify coverage through the following:

- Parents or spouse/partner group plan.
- A national government plan, including Iowa Medicaid as long as the student lives in Iowa for rotations.
- Out-of-state Medicaid as long as the student lives in that state the entire year of rotations.
- Tricare (Military)
- An individual plan that meets the hard waiver criteria as laid in DMU's Student Health Insurance Requirement’s Policy.
- A plan coordinated through DMU.

Student Health Services

Students have access to primary care through appointments in Student Health anytime during regular clinic hours. Annual TB skin testing and flu immunization are available to students through Student Health Services to students at no charge. All other available services will be billed to the student's insurance plan.

Wellness Center

DMU's state-of-the-art 25,000 square foot Wellness Center, located in the Student Education Center, is open daily and provides extensive opportunities. Wellness opportunities offered to all students include classes to promote weight management; fitness classes (most of which are free) including strength training, body sculpt, power sculpt yoga, kickboxing, step and sculpt, WERQ, Pilates, TRX, indoor cycling, and body and glide; body composition testing; individualized exercise programs; personal wellness consultations face-to-face or via Skype; individual Personal Wellness Profile (PWP) – an assessment tool that identifies personal health risks and provides strategies for reaching health and fitness goals; chair massages for a nominal fee; Wellness Resource Library and much more! Additional information is available on the center's website.