DES MOINES UNIVERSITY

academic catalog

2016-2017

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Welcome

Des Moines University, a private graduate university of the health sciences, is pleased to provide this catalog for the 2016-17 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 2016-17 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 provider of high-quality patient care and educational experiences dedicated to improving health and wellness
- A policy consultant and resource 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 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, 230 South LaSalle St., Suite 7-500, Chicago, IL 60604. Telephone 800-621-7440. Education programs within the University also have professional accreditation within their respective fields as follows:

- College of Osteopathic Medicine: Commission on Osteopathic College Accreditation (COCA), 142 E. Ontario Street, Chicago, IL 60611. Telephone 800-621-1773.
- College of Podiatric Medicine and Surgery: Council on Podiatric Medical Education (CPME), 9312 Old Georgetown Road, Bethesda, MD 20814. Telephone 301-581-9200.
- Doctor of Physical Therapy program: Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314. Telephone 703-706-3245.
- 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, GA 30097. Telephone 770-476-1224.
- Master of Public Health program: Council on Education for Public Health (CEPH), 1010 Wayne Avenue, Suite 220, Silver Spring, MD 20910. Telephone 202-789-1050.
- Master of Health Care Administration program: Commission for the Accreditation of Healthcare Management Education (CAHME), 6110 Executive Boulevard, Suite 614, Rockville, MD 20852. Telephone 301-298-1820.

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. Many states, including Iowa, have voluntarily joined together in the State Authorization Reciprocity Agreement (SARA), which provides authorization for participating educational institutions to offer certain activities to residents of other SARA-member states. Des Moines University (DMU) was approved for institutional participation in SARA on December 14, 2015.

DMU works directly with non-SARA 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 or Master of Health Care Administration 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.

In addition to regulating online programs, several non-SARA states require institutions to be authorized by state authorities if DMU students will be placed in credit-bearing internships or clinical rotations at a location or organization in the state. Consequently, DMU cannot assure that students will be allowed to select internships or clinical rotation sites in every state. Program and clinical affairs coordinators can answer questions for students about any potential limitations.

Up-to-date information about DMU's authorization status can be viewed on the University website.

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.

Academic 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.

College of Osteopathic Medicine

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:

- 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.
- The body possesses self-regulatory mechanisms that provide resistance to, and recovery from, injury and disease.
- Structure and function are interrelated, providing the basis for osteopathic manual treatment.
- 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, applicants 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:

Biology/Zoology	8 semester hours, with lab
General Chemistry	8 semester hours, with lab
Organic Chemistry	4 semester hours, with lab
Biochemistry	3 semester hours
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 cell biology, microbiology, immunology, genetics, 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 D.O. 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 D.O. 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 D.O. 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. 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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences. They must be able to observe a patient accurately at a distance and close at hand.
2. **Communication:** Candidates and students should be able to speak, hear, observe and understand the English language in order to elicit information; examine patients; describe changes in mood, activity and posture; and perceive nonverbal communications. They must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They must also be able to communicate effectively and efficiently in oral and written form with all members of the health care team.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways, the suturing of simple wounds, and the performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
4. **Sensory:** Since osteopathic candidates and students need enhanced ability in their sensory skills, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities. This would include individuals with significant previous burns, sensory motor deficits, cicatrix formation and many malformations to the upper extremities. Students must be willing and able to touch and examine members of the same as well as the opposite gender.
5. **Strength and Mobility:** Osteopathic treatment often requires upright posture with sufficient lower extremity and body strength; therefore, individuals with significant limitations in these areas would be unlikely to succeed. Mobility to attend to emergency codes and to perform such maneuvers as CPR is also required.
6. **Visual Integration:** Consistent with the ability to assess asymmetry, range of motion and tissue texture changes, it is necessary to have adequate visual capabilities for proper evaluation and treatment integration.
7. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities. In addition, candidates and students should be able to comprehend three-dimensional relationships and understand the spatial relationships of structures.
8. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. Candidates and students must be able to work effectively as a member of a health care team; tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility; learn to function in the face of uncertainties inherent in the clinical problems of many patients; and to be free of impairments due to substance abuse. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental when caring for patients

whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

Curriculum Overview and Outline

The four years of osteopathic medical school preceding graduate medical education are divided into a preclinical and a clinical phase. The preclinical phase occupies the first two years, and the clinical phase occupies the third and fourth years. The first year of the curriculum is focused on fundamental scientific principles that support the study of medicine. The second year builds on the science foundation and offers an integrated organ system approach that includes basic and clinical science. The curriculum uses a combination of lectures, case-based discussion, small group discussion and laboratory exercises.

The clinical phase of the curriculum begins in the third year and continues until graduation. The third and fourth years are spent in teaching hospitals, clinics and community service agencies to learn the practice of medicine in a clinical setting. These periods of instruction are called clerkships or clinical rotations.

First Year

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

BIOE 1120, Introduction to Medical Ethics, 1.5 credit hours

HIST 1106, Medical Cell and Tissue Biology, 3.0 credit hours

HLTH 1107A, Clinical Medicine, 2.0 credit hours

HLTH 1107B, Clinical Medicine, 1.5 credit hours

HMNTS 1111, Introduction to the History of Medicine, 1.0 credit hour

MICR 1103, Microbiology and Immunology, 6.0 credit hours

OMM 1101A, Osteopathic Manual Medicine I, 2.5 credit hours

OMM 1101B, Osteopathic Manual Medicine I, 2.0 credit hours

OSTE 1102, Fundamentals of Patient Safety and Clinical Quality I, 0.5 credit hour

OSTE 1103A, Professional Certification I, 0.5 credit hour

OSTE 1103B, Professional Certification I, 0.0 credit hours

OSTE 1122, Geriatrics, 2.5 credit hours

PATH 1109, General Pathology, 2.5 credit hours

PHYS 1116, Medical Physiology, 6.5 credit hours

PSYC 1105, Behavioral Medicine, 2.0 credit hours

Second Year

BIOE 2120, Medical Ethics II and Legal Topics in Clinical Medicine, 2.0 credit hours

HLTH 2104, Ophthalmology, 1.0 credit hour

HLTH 2105, Specialty Medicine, 3.0 credit hours

LAB 2115, Basic Surgical and Medical Skills, 1.0 credit hour

OMM 2101A, Osteopathic Manual Medicine II, 2.5 credit hours

OMM 2101B, Osteopathic Manual Medicine II, 1.5 credit hours

OSTE 2102, Fundamentals of Patient Safety and Clinical Quality II, 0.5 credit hour

OSTE 2103A, Professional Certification II, 0.0 credit hours

OSTE, 2103B, Professional Certification II, 1.0 credit hour

OSTE 2104A, Early Clinical Experiences, 0.5 credit hour

OSTE 2104B, Early Clinical Experiences, 0.0 credit hours

OSTE 2119, Preventive Medicine/Nutrition, 2.0 credit hours

OSTE 2120, Evidence-Based Medicine, 1.0 credit hour

OSTE 2124, Infectious Disease/Public Health, 1.5 credit hours

OSTE 2125A, Clinical Reasoning, 1.0 credit hour

OSTE 2125B, Clinical Reasoning, 1.5 credit hours

OSTE 2140, Introduction to Clinical Clerkships, 1.0 credit hour

PHARM 2115, Medical Pharmacology, 5.5 credit hours
PSYC 2107, Psychiatry, 2.5 credit hours
SYST 2101, Cardiovascular System, 3.0 credit hours
SYST 2103, Hematology, 3.0 credit hours
SYST 2105, Renal System, 3.0 credit hours
SYST 2106, Endocrine System, 2.5 credit hours
SYST 2111, Gastrointestinal (GI) System, 3.0 credit hours
SYST 2114, Respiratory System, 3.0 credit hours
SYST 2116A, Obstetrics/Gynecology Simulation Lab, 0.0 credit hours
SYST 2116B, Obstetrics/Gynecology, 2.5 credit hours
SYST 2141, Neurology, 2.0 credit hours

Third Year

OMM 3101A, Osteopathic Manual Medicine III, 1.0 credit hour
OMM 3101B, Osteopathic Manual Medicine III, 1.0 credit hour
OSTE 3144A, Clinical Rotations Year III, 20.0 credit hours
OSTE 3144B, Clinical Rotations Year III, 20.0 credit hours
OSTE 3151, Introduction to Health Systems and Policy, 1.0 credit hour

Fourth Year

OMM 4101A, Osteopathic Manual Medicine IV, 0.5 credit hour
OMM 4101B, Osteopathic Manual Medicine IV, 0.5 credit hour
OSTE 4144A, Clinical Rotations Year IV, 8.0 credit hours*
OSTE 4144B, Clinical Rotations Year IV, 18.0 credit hours*
OSTE 4144C, Clinical Rotations Year IV, 18.0 credit hours*
OSTE 4160, Comprehensive Clinical Assessment, 1.0 credit hour*

**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 prostrate, 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 earns, 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. (3.0 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 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 Certifications I: The Professional Certifications 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 Certifications 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, and students will learn how to craft a professional curriculum vitae. All university-wide interprofessional and professional integrity activities designed to give students authentic work-related experiences are included in this course as well. Lastly, students will maintain their Basic Life Support skills. 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 Certifications II: The Professional Certifications II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year D.O. students to accomplish. All students are required to maintain BLS certification and Bloodborne Pathogens Training during the second academic year, and this training is a part of Professional Certifications II. An American Red Cross module will provide students an advanced training

experience that they can scaffold onto what they learning in the Professional Certifications I course. 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. Lastly, students will be required to take a board diagnostic exam in preparation for the COMLEX Level 1 exam during the summer. 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 Certifications II: The Professional Certifications II course encompasses all activities that lie outside the traditional curriculum, but are required components for second-year D.O. students to accomplish. All students are required to maintain BLS certification 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 again take a board diagnostic exam and 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 D.O. 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 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. 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-year-long 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), 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. 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), 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 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. Up to 8 weeks of research elective time is also offered. (8.0 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. Up to 8 weeks of research elective time is also offered. (18.0 credit hours)

OSTE 4144C 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. Up to 8 weeks of research elective time is also offered. (18.0 credit hours)

OSTE 4160 Comprehensive Clinical Assessment: Students return to campus at the start of the fourth 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)

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. (2.5 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, and 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). 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 D.O.-D.P.M. Neuroanatomy course, D.P.T. 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. The course is 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 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, in the spring of Year I, 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, in the fall of Year II, 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 2063C Military Elective: This course brings added value to military students' DMU educational experience by preparing them for their roles as physicians and officers in the United States military. The course is open to rotating third-year students who have completed INST-2063A and B, and is presented online as an independent study course. Credit for this elective requires successful completion of a capstone project to be submitted electronically. (0.5 credit hour) *Prerequisites: INST 2063A and INST 2063B*

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 2076 From Stage to Clinic: Improv Skills in a Health Care Setting: Through the experiential study of improvisational 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. Students will practice developing and implementing engaging lessons utilizing active learning approaches. Students will be assessed on their understanding and ability to justify instructional choices. Culminating experiences will include the development of a teaching philosophy and exposure to the academic role of teaching via the delivery of lessons and the completion of self- and peer-assessment. (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 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or

are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

INST 2081 Fundamentals of Learning: This course is designed to prepare students to be academically successful in medical school. We will explore fundamentals of active learning, time management, test-taking strategies, how to study for different kinds of content, self-regulation and motivation. Ultimately, this will help students be more autonomous learners capable of designing their own study approaches and will enhance their ability to be successful from day one. The course is designed to be paired with the Learning and Study Strategies Inventory. (0.5 credit hour)

INST 2082 Scientific Knowledge Integrated into Patient Presentations: This course uses a collaborative educational approach that foregrounds clinical reasoning with integrated basic science course content review. It is expected that students participating in the course will develop a deeper understanding of the basic sciences course work, especially as these courses relate to each other, by working through patient presentations, and will promote greater retention of what they learned. Students will be expected to develop an understanding of the relationship of content and the role and purpose of clinical elements in practice through engaging in the course. (1.0 credit hour)

MPH 772 Cardiovascular Epidemiology: This course is aimed to enable the students to become familiar with principles, methods and issues in the epidemiology of cardiovascular disease. This course focuses on public health-oriented coronary artery disease, and its major traditional and novel risk factors; and also covers other topics such as cardiovascular prediction models, hypertension, stroke, sudden cardiac death, and subclinical cardiovascular disease. The format includes seminar-style courses, lectures, group activities, and projects. (3.0 credit hours) *Prerequisites: MPH 650 and MPH 655*

MPH 773 Nutritional Epidemiology: The purpose of this course is to introduce students to the discipline of nutritional epidemiology. We will focus on the application of epidemiological methods to studies of diet, nutrition and diseases. Students completing this course will understand the basic principles of nutritional epidemiology and will be able to apply them in reading the literature and participating in nutrition research projects. The format includes seminar-style courses, lectures, group activities and projects. (3.0 credit hours) *Prerequisites: MPH 650 and MPH 655*

OMM 5101 OMM Fellowship: The OMM fellowship is awarded to four students per class who have demonstrated high scholastic achievement in the first and second-year OMM curricula. Applicants will generally have demonstrated service to his/her academic community by serving as an OMM TA and commitment to excellence in OMM by pursuing outside learning opportunities. Many have been involved in the Amish Clinic, Drake Clinic and have attended weekend study group sessions with Dr. Sara Sutton. Most have taken the 40-hour Cranial elective. Selection of the OMM Fellows is made after a thorough review of the qualifications and a personal interview of each candidate. Throughout this fellowship students will have the opportunity to develop their diagnostic and treatment skills and will learn to integrate osteopathic principles and practice into whatever clinical specialty they choose to pursue. (16.0 credit hours)

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 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.

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:

- Show professional promise in the judgment of the faculty and receive the faculty's recommendation for graduation.
- Have attained 21 years of age.
- Pass all required courses, systems, rotations and examinations.
- Be formally enrolled for at least two years at the COM.
- Be of good moral character and emotionally stable.
- Satisfactorily discharge all financial obligations to the University.
- Complete all graduation requirements, including the graduation clearance process.
- Pass Level 1 and Level 2 (CE and PE) of the COMLEX examinations.
- 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 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.

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.

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 anatomic 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, applicants 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 but with a strong science background will be considered. 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:

Biology/Zoology	8 semester hours, with lab
Inorganic Chemistry	8 semester hours, with lab
Organic Chemistry	4 semester hours, with lab
Biochemistry	3 semester hours
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. 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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences.
2. **Communication:** Candidates and students should be able to speak, hear, observe, and understand the English language in classroom and laboratory settings. They must also be able to communicate effectively and efficiently in oral and written form with classmates and faculty.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required in a classroom or laboratory setting.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** Candidates and students must be able to concentrate, analyze and interpret data and make decisions within areas in which there is a reasonable amount of visual and auditory distraction. They must also perform these functions in a timely manner.
5. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, and the prompt completion of all responsibilities. Candidates and students must be able to tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility and learn to function in the face of uncertainties inherent in graduate research; and to be free of

impairment due to substance abuse. Integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental of individuals whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

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.

ANAT 1101A, Gross Anatomy, 4.0 credit hours
ANAT 1101B, Gross Anatomy, 2.5 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
ANAT 1104, Neuroanatomy, 2.0 credit hours
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 2A14, Teaching in Anatomy I, 2.0 credit hours
MSA 2A18, Advanced Dissections in Anatomy I, 1.0 credit hour
MSA 2A24, Teaching in Anatomy II, 2.0 credit hours
MSA 2A28, Advanced Dissections in Anatomy II, 1.0 credit hour
MSA 2A29, M.S.A. Capstone Experience, 2.0 credit hours

**Required for dual degree students only.*

Electives

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

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
INST 2071, Community Health Immersion Project (CHiP), 1.0 credit hour
INST 2080, Special Topics, 1.0-6.0 credit hours
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
PATH 1109, General Pathology, 2.5 credit hours

Curriculum Outline and Electives

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)

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 O650 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 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 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 D.O./D.P.M. 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 D.O./D.P.M. 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 2A29: MSA Capstone Experience: This course provides the opportunity for students to synthesize and

actively communicate the skills and anatomical knowledge they have learned throughout the degree program. Though guided study, this course will culminate in both a comprehensive paper and oral presentation focusing on an anatomical topic (organ, system, or region) following a molecules to organs approach (i.e., incorporating information on its genetic, developmental, histological, gross anatomical, and clinical significance). In addition, students will learn professional skills including CV preparation, literature review and critique, academic writing, and lecturing/oral presentation. (2.0 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. 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 D.O.-D.P.M. Neuroanatomy course, D.P.T. 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*

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 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

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 textbook, 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: Cell Biology IIB consists of two units with topics ranging from signal transduction, cytoskeleton, to cell cycle and death. The course is designed as a M.S.B.S. core course to provide students a foundational understanding of key concepts and exposure to laboratory techniques commonly used to study cell function. The course format includes lectures, small group discussions and short oral presentations (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)

MSA2A07 Research: Research under the supervision of a graduate faculty member. (1.0 – 6.0 credit hours) *Prerequisite: Consent of Instructor*

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.A.) 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:

- Show professional promise in the judgment of the faculty and receive the graduate faculty's recommendation for graduation.
- Pass all required and elective courses and attain a final cumulative GPA of 3.0 or greater.
- 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.
- Be in attendance at the College of Osteoathic Medicine for at least the final 30.0 credit hours of graduate study.
- Be of good moral character and emotionally stable.
- Satisfactorily discharge all financial obligations to the University.
- 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:

Biology/Zoology	8 semester hours, with lab
General Chemistry	8 semester hours, with lab
Organic Chemistry	4 semester hours, with lab
Biochemistry	3 semester hours
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 cell biology, microbiology, immunology, physiology and anatomy.

Additional information can be found on the M.S.B.S. Program Admissions Requirements website.

Program Application Process

Application to the Master of Science in Biomedical Sciences 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 also are used to assess a candidate's potential for graduate study.

Detailed information regarding the process can be found on the MSBS 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 Biomedical Sciences Coordinating Committee. Approved transfer credits will be entered on the student's permanent record by the Registrar's Office. No more than 10.0 credit hours of approved graduate work will be applied toward the 47.0 credit hours required for the degree.

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. 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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences.

2. **Communication:** Candidates and students should be able to speak, hear, observe, and understand the English language in classroom and laboratory settings. They must also be able to communicate effectively and efficiently in oral and written form with classmates and faculty.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required in a classroom or laboratory setting.
4. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** Candidates and students must be able to concentrate, analyze and interpret data and make decisions within areas in which there is a reasonable amount of visual and auditory distraction. They must also perform these functions in a timely manner.
5. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, and the prompt completion of all responsibilities. Candidates and students must be able to tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility and learn to function in the face of uncertainties inherent in graduate research; and to be free of impairment due to substance abuse. Integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental of individuals whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

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 47.0 credit hours (22.5 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.

Required Core

BIOC 1112, Biochemistry and Molecular Genetics, 5.0 credit hours
MBS 1B02, Intro to Research, 1.0 credit hour
MBS 1B03, Responsible Conduct Biomedical Research, 1.0 credit hour
MBS 1B04A, Cell Biology I, 1.5 credit hours (or MBS 1B12A)
MBS 1B04B, Cell Biology II, 1.0 credit hours (or MBS 1B12B)
MBS 1B06, Intro to Biostatistics and Data Analysis, 2.0 credit hours
MBS 1B12A, Frontiers in Biomedical Research, 1.5 credit hours
MBS 1B12B, Frontiers in Biomedical Research, 1.0 credit hour
MBS 1B14, Research Compliance and Laboratory Safety, 1.5 credit hours
MBS 2B04, Presentation of Scientific Information, 1.0 credit hour
MBS 2B05, Scientific Communications, 1.0 credit hour
MBS 2B10, Research, 15.5 credit hours
MBS 2B12, Thesis, 9.0 credit hours

Emphasis Blocks

MICR 1103, Microbiology and Immunology, 6.0 credit hours*
MBS 1B11, Special Topics in Microbiology and Immunology, 1.5 credit hours
PHYS 1116, Medical Physiology, 6.5 credit hours*
MBS 1B05, Special Topics in Pharmacology, 1.0 credit hours*
PATH 1109, General Pathology, 2.5 credit hours*
MBS 1B08, Major Organ Physiology, 3.5 credit hours*

MICRO 1103A, Immunology, 1.5 credit hours*
INST 2080, Special Topics, 1.0 – 6.0 credit hours*

**7.5 hours of emphasis courses are required.*

Curriculum Outline

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)

INST 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 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. (1.0 credit hour)

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 textbook 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: Cell Biology IIB consists of two units with topics ranging from signal transduction, cytoskeleton, to cell cycle and death. The course is designed as a MSBS core course to provide students a foundational understanding of key concepts and exposure to laboratory techniques commonly used to study cell function. The course format includes lectures, small group discussions, and short oral presentations (1.0 credit hour)

MBS 1B05 Special Topics in Physiology and Pharmacology: This course will introduce specific topics in physiology with focus on associated disease processes and relevant pharmacological treatments. Students will continue their studies in advanced concepts of physiology, including pathophysiology, as well as basic principles of five specialized areas of pharmacology (autonomic and cardiovascular, respiratory, renal, endocrine, and neuropharmacology) (1.0 credit hours) *Prerequisite: Consent of Instructor*

MBS 1B06 Intro to Biostatistics and Data Analysis: 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 1B08 Major Organ System: This course introduces basic principles of medical physiology starting at the cellular level and progressing to the organ systems. Emphasis is placed on regulatory control interactions that are necessary to understand body homeostasis and pathophysiology and conceptualization of disease processes and rationales for therapeutic interventions. Understanding physiology is the foundation for pharmacology, pathology and clinical medicine disciplines. A firm background in anatomy and biochemistry is essential for mastery of physiology. (3.5 credit hours)

MBS 1B11 Special Topics in Microbiology and Immunology: An advanced class in microbiology and immunology including a combination of small group discussions 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 1B12A: Frontiers in Biomedical Research: The Frontiers in Biomedical Research course consists of two parts (A and B). Frontier A is offered in the fall semester. The course is designed as a M.S.B.S. core course to provide students information on modern biomedical research with an emphasis on research process and techniques. The course format includes lectures, small group discussions, and short oral presentations. (1.5 credit hours)

MBS 1B12B: Frontiers in Biomedical Research: The Frontiers in Biomedical Research course consists of two parts (A and B). Frontier B is offered in the spring semester. The course is designed as a M.S.B.S. core course to provide students information on modern biomedical research with an emphasis on research process and techniques. The course format includes lectures, small group discussions, and short oral presentations. (1.0 credit hour)

MBS 1B14 Research Compliance and Laboratory Safety: This course provides students with laboratory safety and regulatory compliance procedures and policies. (1.5 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: Bench research under the supervision of thesis advisor and thesis committee. (15.5 credit hours) *Prerequisite: Thesis committee approval*

MBS 2B12 Thesis: All M.S.B.S. 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. (9.0 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)

MICR 1103A Immunology: The course begins with the fundamentals of the immune system and transitions into the normal functioning of the immune response and the mechanisms behind immunopathologic conditions. Basic principles and clinical relevance of immune mechanisms are also emphasized. (1.5 credit hours) *Prerequisite: Consent of Instructor*

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. (6.5 credit hours) *Prerequisite: BIOC 1112*

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:

- Show professional promise in the judgment of the faculty and receive the graduate faculty's recommendation for graduation.
- Successfully complete all required and elective courses and obtain a final cumulative GPA of 3.0 or higher.
- Successfully complete and defend their thesis.
- Make continual research project progress commensurate with successful thesis completion.
- Be in attendance at the College of Medicine for the last 30 credits.
- Be of good moral character and emotionally stable.
- Satisfactorily discharge all financial obligations to the University.
- Complete all graduation requirements, including the graduation clearance process and a Petition to Graduate form.

College of Podiatric Medicine and Surgery

The College of Podiatric Medicine and Surgery (CPMS) 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 advance 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

Podiatric physicians manage patients with a broad range of foot and ankle problems; they diagnose and treat foot and ankle conditions for patients of all ages. Educating patients on prevention or reoccurrence is a vital aspect of their practice. Podiatric physicians medically, surgically and orthopedically manage foot and ankle problems and care for patients with diabetes who are vulnerable to limb-threatening complications. It is not uncommon for these specialists to treat conditions associated with peripheral vascular disease, various forms of arthritis, neurologic disorders and sports or occupation related injuries.

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:

Biology	8 semester hours, with lab
General Chemistry	8 semester hours, with lab
Organic Chemistry	8 semester hours, with lab (may substitute 4 semester hours of Biochemistry)
Physics	8 semester hours, with lab
English: Comp/Literature/Speech	6 semester hours

It is highly recommended students take biochemistry. Other recommended courses include genetics, human anatomy, statistics and physiology.

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 D.P.M. Program Admissions website.

Competitive applicants will be invited to participate in an on-campus interview.

Applicants will typically receive a response to their application from the Admissions Office within one week of receipt.

Students wishing to be considered for transfer into the D.P.M. 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. 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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences. They must be able to observe a patient accurately at a distance and close at hand.
2. **Communication:** Candidates and students should be able to speak, hear, observe, and understand the English language in order to elicit information; examine patients; describe changes in mood, activity and posture; and perceive nonverbal communications. They must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They must also be able to communicate effectively and efficiently in oral and written form with all members of the health care team.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways, and the suturing of simple wounds. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
4. **Sensory:** Because podiatric candidates and students need enhanced ability in their sensory skills, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities. This would include individuals with significant previous burns, sensory motor deficits, cicatrix formation and many malformations to the upper extremities. Students must be willing and able to touch and examine members of the same as well as the opposite gender.
5. **Strength and Mobility:** Podiatric medical treatment often requires upright posture with sufficient lower extremity and body strength; therefore, individuals with significant limitations in these areas would be unlikely to succeed. Mobility to attend to emergency codes and to perform such maneuvers as CPR is also required.
6. **Visual Integration:** Consistent with the ability to assess asymmetry, range of motion and tissue texture changes, it is necessary to have adequate visual capabilities for proper evaluation and treatment integration.
7. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities. In addition, candidates and students should be able to comprehend three-dimensional relationships and understand the spatial relationships of structures.
8. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. Candidates and students must be able to work effectively as a member of a health care team; tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility; learn to function in the face of uncertainties inherent in the clinical

problems of many patients; and to be free of impairments due to substance abuse. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental when caring for patients whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

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 medical centers 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 cases and simulation experiences relate each system to today's 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 Clinical Systems Courses taught in the second year are designed to meet the general medicine 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, medical centers 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 interprofessional, patient-centered health care.

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
HLTH 1107A, Clinical Medicine, 2.0 credit hours
HLTH 1107B, Clinical Medicine, 1.5 credit hours
MICR 1103, Microbiology and Immunology, 6.0 credit hours
OSTE 1122, Geriatrics, 2.5 credit hours
PATH 1109, General Pathology, 2.5 credit hours
PHYS 1116, Medical Physiology, 6.5 credit hours
POD 1223, Principles and Practice of Podiatric Medicine, 2.0 credit hours

Year 2

ANAT 2211, Lower Limb Anatomy, 3.0 credit hours
PHARM 2115, Medical Pharmacology, 5.5 credit hours
POD 2204, Cultural Competency in Medicine, 1.0 credit hour
POD 2207, Clinical Podiatric Medicine and Diagnostics, 4.0 credit hours
POD 2210, Biomechanics: Normal Structure and Function, 2.0 credit hours
POD 2220, Clinical Podiatric Biomechanics and Surgery, 6.5 credit hours
POD 2237, Summer Podiatric Medical and Surgery Rotation, 4.0 credit hours
SYST 2201, Clinical Skills I: Cardio/Pulmonary, 4.0 credit hours
SYST 2205, Clinical Skills IV: Nephrology/GI/Nutrition, 3.5 credit hours
SYST 2206, Clinical Skills II: Endocrine/Hematology, 3.5 credit hours

SYST 2241, Clinical Skills III: Neurology/Behavioral Medicine, 3.0 credit hours
SYST 2244, Lower Extremity Dermatology, 2.0 credit hours

Year 3

ACLS 3202, Advanced Cardiac Life Support, 0.5 credit hour
POD 3205, Health Care Systems, Community Medicine and Medical Jurisprudence, 2.5 credit hours
POD 3206, EBM Diagnostic Imaging, 1.5 credit hours
POD 3207, Emergency Medicine and Podiatric Trauma, 2.5 credit hours
POD 3210, Basic Surgical and Medical Skills, 1.0 credit hour
POD 3217A, Podiatric Medicine and Surgery Rotations, 14.0 credit hours
POD 3217B, Podiatric Medicine and Surgery Rotations, 14.0 credit hours
POD 3221, EBM Rearfoot Pathology, 1.5 credit hours
POD 3224, EBM Forefoot Pathology, 1.5 credit hours
POD 3225, EBM Infectious Disease, 1.5 credit hours
POD 3227, Emergency Medicine Simulation Rotation, 1.0 credit hour
POD 3228, Vascular Surgery Rotation, 2.0 credit hours
POD 3229, Internal Medicine Rotation, 2.0 credit hours
POD 3231, Community-Based Podiatric Medicine and Surgery Rotation, 4.0 credit hours

Year 4

CLPD 4220, Podiatric Medicine and Surgery Rotation, 24.0 credit hours
CLPD 4221, Core Rotation, 12.0 credit hours
CLPD 4222, Private Practice Rotation, 4.0 credit hours
CLPD 4223, Academic Medicine Rotation, 4.0 credit hours
CLPD 4224, Medicine Rotation, 4.0 credit hours
CLPD 4225, Medical Specialties Rotation, 2.0 – 4.0 credit hours
CLPD 4226, Research Rotation, 3.0 – 4.0 credit hours
CLPD 4227, Global Health Rotation, 4.0 credit hours
POD 4217, Clinical Skills Assessment, 1.0 credit hour

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 4223 Academic Medicine Rotation: The College offers a 4-week experience to fourth-year students having an interest in academic medicine as a career. Students will work with the Dean and CPMS faculty on various administrative and teaching responsibilities associated with their appointments. Participating students will present a lecture, facilitate a small group session, attend various meetings and submit a capstone paper of this experience. (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)

CLPD 4225 Medical Specialties Rotation: This is a 2-4 week fourth-year clinical rotation in one of many medical specialties including but not limited to internal medicine, dermatology, emergency medicine, general surgery, orthopaedic surgery, infectious disease, neurology and physical therapy. Specific objectives exist for each of these specialties. In addition to the clinical training students will gain valuable interprofessional experience by interacting with other medical specialists and the relationship with podiatric medicine. (2.0 – 4.0 credits)

CLPD 4226 Research Rotation: As a requirement of the CPMS Research Track, fourth-year students are required to complete 3-4 weeks of research elective time. This is also available to students not participating in the Research Track. Students will use this time to work with a faculty mentor on current research projects, developing new ideas or to complete projects that are in progress. (3.0 – 4.0 credits)

CLPD 4227 Global Health Rotation: Through the Office of Global Health and with the approval of the CPMS Associate Dean for Clinical Affairs, fourth-year students may complete a 4-week medicine rotation at a University approved site. This is based on the availability of the rotation and how this fits into the student's fourth-year schedule. This rotation may satisfy the Medicine requirement of the fourth-year. (4 credits)

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 prostrate, 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)

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)

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)

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)

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: The Principles and Practices of Podiatric Medicine course covers the advancement of the profession from its early days to the current practice environment. Students become familiar with the governance of the profession and podiatric medical education. This course provides valuable information on key policies, concepts and expectations in the areas of professionalism, interprofessional medical education, doctor-patient relationship, medical ethics, cultural competency and human subject research. The course concludes with an overview of the fundamental principles of basic topographical lower extremity anatomy, biomechanics and taking a history/lower extremity physical supported by a series of interactive case presentations. (2.0 credit hours)

POD 2204 Cultural Competency in Medicine: The Cultural Competency in Medicine Course is designed to introduce the student to the existence of health disparities across the United States and the global community. The course provides an opportunity to learn and engage in

discussions about diverse populations. This will assist the student to build stronger patient relationships, care for patients form diverse groups more effectively with the goal of improving healthcare outcomes. (1.0 credit hour)

POD 2207 Clinical Podiatric Medicine and Diagnostics: Clinical Podiatric Medicine & Diagnostics is a continuation of Principles and Practices of Podiatric Medicine. This course is designed to build upon the knowledge gained in the previous course. The content of this course covers a wide range of podiatric medical conditions including clinical signs, diagnostic tests and treatment plans. This course is divided into four modules: (1) Medical Documentation and Diagnostic Imaging of the Lower Extremity, (2) Principles of Rheumatology and Pain Management, (3) Infectious Disease and Wound Management and (4) Lower Extremity Orthopedics/Sports Medicine. The purpose of this course is to prepare the student for his/her clinic rotations that begin the following summer. (4.0 credit hours)

POD 2210 Biomechanics: This course is designed to introduce the student to fundamental biomechanical principles as they relate to the concepts and theories of normal foot function and basic principles of normal gait. This course explores the evolution, development and functional anatomy of the lower extremity, focusing on the principles of kinesiology, kinetics and kinematics as they relate to the static and dynamic motions of lower extremity. Students will also be exposed to physiologic properties and characteristics of structures associated with the musculoskeletal system. The course will allow the student to have an appreciation for normal and pathological function to be applied to future course work and patient care. (2.0 credit hours)

POD 2220 Clinical Podiatric Biomechanics and Surgery: 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. The course is divided into six modules: Principles of Surgery I, Principles of Biomechanics, Orthosis Management, Principles of Surgery II, Forefoot Biomechanics/Surgery and Rearfoot Surgery/Pediatrics. Each module is designed to present the student with a basic understanding of the biomechanical and surgical principles as they apply to the conservative and surgical management of the foot. Labs have been scheduled to follow the corresponding lecture as closely as possible. Further knowledge will be gained when utilizing the didactic knowledge in the laboratory setting. (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 Health Care Systems, Community Medicine and Medical Jurisprudence: The Health Care Systems, Community Medicine and Medical Jurisprudence course is designed to introduce the student to aspects of health care beyond basic science and the clinical aspects of patient care. The Jurisprudence section of the course will expose the student to the medico-legal aspects of the practice of health care. The Health Systems and Policy portion introduces fundamental principles and concepts associated with the delivery of health care in today's ever-changing health environment. The course also introduces the student to concepts in epidemiology and transmissible diseases and elaborates on concepts in research-based methodology and evidence based medicine from previous courses. Additionally, this course reviews ways to enhance patient safety and satisfaction as well as identify the role of various forms of bias in patient care. (2.5 credit hours)

POD 3206 EBM Diagnostic Imaging: Diagnostic Imaging is one of four academic courses that contribute to the third-year Evidence-Based Podiatric Medicine and Surgery curricular capstone designed to integrate the basic sciences with the clinical sciences in a manner that students are able to apply the information in a clinical situation. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems. They will apply evidence based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. The Diagnostic Imaging course examines various cases to determine the most appropriate imaging tests to establish a diagnosis and identify normal and abnormal findings of the studies ordered. (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: Rearfoot Pathology is one of four academic courses that contribute to the third-year Evidence-Based Podiatric Medicine and Surgery curricular capstone designed to integrate the basic sciences with the clinical sciences in a manner where students are able to apply previous information presented to a clinical situation. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems. They will apply evidence based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. The Rearfoot Pathology Course requires the students to applying finding from existing medical evidence in the evaluation, diagnosis and management (non-surgical and surgical) of common rearfoot pathologies through a case-based format. (1.5 credit hours)

POD 3224 EBM Forefoot Pathology: Forefoot Pathology is one of four academic courses that contribute to the third-year Evidence-Based Podiatric Medicine and Surgery curricular capstone designed to integrate the basic sciences with the clinical sciences in a manner where students are able to apply previous information presented to a clinical situation. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems. They will apply evidence based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. The Forefoot Pathology Course requires the students to applying finding from existing medical evidence in the evaluation, diagnosis and management (non-surgical and surgical) of common forefoot pathologies through a case-based format. (1.5 credit hours)

POD 3225 EBM Infectious Disease: Infectious Disease is one of four academic courses that contribute to the third-year Evidence-Based Podiatric Medicine and Surgery curricular capstone designed to integrate the basic sciences with the clinical sciences in a manner where students are able to apply previous information presented to a clinical situation. Students will use learned skills and knowledge as well as develop new skills to solve clinical problems. They will apply evidence based evaluation skills to evaluate the literature and select the most appropriate course of action in dealing with a clinical problem. The Infectious Disease Course requires the students to applying finding from existing medical evidence in the evaluation, diagnosis and management (non-surgical and surgical) of common lower extremity infectious diseases conditions through a case-based format. (1.5 credit hours)

POD 3227 Emergency Medicine Simulation Rotation: This 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 third-year clinical rotation is designed to provide students with a clinical experience related to history and physical examination techniques, appropriate diagnostic testing and interpretation, and management options for patients experiencing arterial, venous or lymphatic disorders. Students will be exposed to measures designed to prevent vascular diseases of the lower extremities. (2.0 credit hours)

POD 3229 Internal Medicine Rotation: This third-year hospital based clinical rotation is designed to expose students to concepts and techniques presented in the preclinical Clinical Systems and Podiatric curriculum. Concepts include performing complete history and physical examinations, developing differential diagnosis lists and formulating appropriate treatment plans. Students interact with patients with a variety of co-morbidities with an emphasis on the diabetic patient. (2.0 credit hours)

POD 3231 Community-Based Podiatric Medicine and Surgery Rotation: This third-year clinical rotation is designed to provide students with a clinical experience in both an office-based and ambulatory surgery center learning environment. Students are assigned to podiatric physicians in the community and participate in patient care covering a broad spectrum of foot and ankle conditions. This rotation enables students to see first-hand current trends in a podiatric practice. (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 System I: Cardio/Pulmonary: This course is designed to enable the student to progress from the basic sciences previously taught in this area to the appropriate level of clinical knowledge necessary for the practicing podiatrist. The course provides the necessary information through didactic and workshop forums to allow students to recognize both normal and abnormal function of the heart, lungs and the combined cardio/pulmonary system. Cardiovascular and pulmonary system overviews of pathology, diagnosis and management of the patient in both office and hospital settings are presented. The first portion of the course concentrates on the cardiovascular system, diseases and diagnosis. The last portion concentrates on the respiratory system, diseases and diagnostic methods. Diagnosis and management of the patient in both the office and the hospital are considered in the lectures presented. (4.0 credit hours)

SYST 2205 Clinical System IV: Nephrology/GI/Nutrition: The Nephrology section of this course provides a description of the structure and function of the renal system and of the interrelations of the renal system with other systems. Common renal diseases are discussed with emphasis on podiatric manifestations. The Gastrointestinal section 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 reviews 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 System II: Endocrine/Hematology: The Endocrine section of this Clinical System is designed to provide the student with an understanding of normal and abnormal function of the endocrine system. This is important due to the clinical manifestations seen in the lower extremity, as well as complications that may arise in the surgical patient with an endocrine dysfunction. Additionally, as a major component of his/her professional practice, the podiatrist has the care of patients with diabetes-related complications. After completion of the Hematology section, the student will have learned 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. (3.5 credit hours)

SYST 2241 Clinical System III: Neurology/Behavioral Medicine: This course 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: Dermatology is the medical specialty concerned with the diagnosis and management of diseases of the skin and skin related structures. This course is designed as an introduction to clinical dermatology; including a review of basic terms, anatomy, pathology, diagnosis, and treatment/management of cutaneous disorders affecting the lower extremity. It provides the podiatric medical student with an understanding of diagnostic and management skills for dermatologic conditions affecting the lower extremity and systemic diseases associated with skin and skin-related striations. (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). 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. The course is 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) *Prerequisite: INST 2036A*

INST 2048 Research in Podiatric Medicine and Surgery: This course is available to students after completion of the first year; those with an interest in research work with a faculty mentor on a variety of possible research projects. The majority of projects are related to podiatric medicine while others may be associated with other basic science and clinical disciplines. (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, 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 2076 From Stage to Clinic: Improv Skills in a Health Care Setting: Through the experiential study of improvisational 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. Students will practice developing and implementing engaging lessons utilizing active learning approaches. Students will be assessed on their understanding and ability to justify instructional choices. Culminating experiences will include the development of a teaching philosophy and exposure to the academic role of teaching via the delivery of lessons and the completion of self- and peer-assessment. (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 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

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.

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 – Wound Care Center
- Broadlawns Medical Center
- Iowa Lutheran Medical Center
- Iowa Methodist Medical Center
- Mercy Hospital Medical Center

Clinic Fourth-Year Hospital Clinical Affiliations

- DMU Clinic, Des Moines, Iowa
- Broadlawns Medical Center, Des Moines, Iowa
- Geisinger Health System, 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 – 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
- Surgery Hospital of Oklahoma/CCF, Oklahoma City, Oklahoma
- University Hospital – UMDNJ, Newark, New Jersey
- 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:

- Show professional promise in the judgment of the faculty and received the faculty's recommendation for graduation.
- Pass all required systems, courses, rotations and examinations.
- Take and pass Part I and taken both Part II clinical knowledge and clinical skills exams administered by the American Podiatric Medical Licensing Examiners.
- Maintain a grade point average (GPA) of at least a 2.0.
- Be of good moral character and emotional stability.
- Have attained the age of 21 years.
- 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.
- Satisfactorily discharge all financial obligations to the University.
- Complete all graduation requirements, including the graduation clearance process.
- 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. The National Board of Podiatric Medical Exam process includes administration of Part I at the completion of the second year and Part II Clinical Skills and Part II Clinical Knowledge administered during the fourth year. CPMS students are required to pass Part I and take both parts of Part II.The majority of states, including Iowa, now require completion of an approved residency program.

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.) (last cohort accepted July 2015), 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. On campus classes and labs give students a practical, hands-on approach to learning.

The college also offers a wide variety of online classes better suited to today's working professional. 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 rapidly-changing health care environment.

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

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.

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:

Biology* *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.*	16 semester hours
Chemistry* *A semester each of inorganic chemistry, organic chemistry and biochemistry. Labs are required, when available, for all chemistry courses.*	16 semester hours
English *Including one course of English composition and one course of speech.*	6 semester hours
Psychology *Including one course of abnormal psychology.*	9 semester hours
Statistics or Biostatistics	1 course

Medical Terminology	1 course

**Chemistry and biology prerequisite courses must be completed within five years of matriculation.*

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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences. They must be able to observe a patient accurately at a distance and close at hand.
2. **Communication:** Candidates and students should be able to speak, hear, observe and understand the English language in order to elicit information; examine patients; describe changes in mood, activity and posture; and perceive nonverbal communications. They must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They must also be able to communicate effectively and efficiently in oral and written form with all members of the health care team.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physician assistants are cardiopulmonary resuscitation, administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways, the suturing of simple wounds and the performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
4. **Sensory:** Since physician assistant candidates and students need enhanced ability in their sensory skills, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities. This would include individuals with significant previous burns, sensory motor deficits, cicatrix formation and many malformations to the upper extremities. Students must be willing and able to touch and examine members of the same as well as the opposite gender.
5. **Strength and Mobility:** Physician assistant studies often require upright posture with sufficient lower extremity and body strength; therefore, individuals with significant limitations

in these areas would be unlikely to succeed. Mobility to attend to emergency codes and to perform such maneuvers as CPR is also required.

6. **Visual Integration:** Consistent with the ability to assess asymmetry, range of motion and tissue texture changes, it is necessary to have adequate visual capabilities for proper evaluation and treatment integration.
7. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem solving, the critical skill demanded of physician assistants, requires all of these intellectual abilities. In addition, candidates and students should be able to comprehend three-dimensional relationships and understand the spatial relationships of structures.
8. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. Candidates and students must be able to work effectively as a member of a health care team; tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility; learn to function in the face of uncertainties inherent in the clinical problems of many patients; and to be free of impairments due to substance abuse. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental when caring for patients whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

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 experiences with the final month allowing for comprehensive examinations and presentation of capstone projects. The academic calendar includes no extended vacation periods, but does provide short breaks in the fall, winter, spring of the first year and one to two weeks during the second year.

Year 1

MSPA 1340, Program to Practice I, 0.5 credit hour
MSPA 1360, Anatomy – Clinically-Oriented, 6.5 credit hours
MSPA 1361, Physiology, 6.0 credit hours
MSPA 1362, Flex Care Communication Training, 1.0 credit hour
MSPA 1363, Pathology, 0.5 credit hour
MSPA 1364, Nutrition, 1.0 credit hour
MSPA 1371, Medical Pharmacology, 5.5 credit hours
MSPA 1372, Introduction to Clinical Medicine (ICM) I, 7.0 credit hours
MSPA 1375, Immunology/Microbiology, 2.5 credit hours
MSPA 1376A Clinical Skills I, 0.0 credit hours
MSPA 1376B Clinical Skills II, 0.5 credit hour
MSPA 1376C Clinical Skills III, 3.0 credit hours
MSPA 1377, , Introduction to Clinical Medicine (ICM) II, 10.0 credit hours
MSPA 1378, Medical Genetics, 1.0 credit hour
MSPA 1381, Introduction to the Health Care Delivery 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, , Introduction to Clinical Medicine (ICM) III, 10.5 credit hours
MSPA 1395, Research and Epidemiology, 1.0 credit hour

MSPA 1398, Introduction to Clinical Medicine (ICM) IV, 6.5 credit hours

Year 2

PA 2302, Psychiatry Supervised Clinical Practice Experience, 4.0 credit hours
PA 2303, Emergency Medicine Supervised Clinical Practice Experience, 4.0 credit hours
PA 2309, Elective Supervised Clinical Practice Experience, 8.0 credit hours
PA 2333, Women's Health Supervised Clinical Practice Experience, 2.0 credit hours
PA 2334, Pediatric Supervised Clinical Practice Experience, 2.0 credit hours
PA 2335, Surgery Supervised Clinical Practice Experience, 4.0 credit hours
PA 2336, Internal Medicine Supervised Clinical Practice Experience, 12.0 credit hours
PA 2337, Family Medicine Supervised Clinical Practice Experience, 12.0 credit hours
PA 2340A, Program to Practice II, 1.0 credit hour
PA 2340B, Program to Practice II, 0.5 credit hour
PA 2340C, Program to Practice II, 1.0 credit hour

Didactic Curriculum

The didactic curriculum in the physician assistant program is designed to meet the needs of students who will be working with physicians in primary care and medical specialties and will be enhanced by course work in ethics, health systems, epidemiological principles, research and a capstone project.

Clinical Curriculum

A number of clinical experiences are offered during the first and second year of the physician assistant program. First-year clinical experiences begin as early in the year as possible. The sites are usually within a one-hour hour drive from Des Moines.

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 Capstone Project. During this course the student completes the required online modules offered by the Collaborative Institutional Training Initiative (CITI) program on human subject research and the responsible conduct of research. A brief review of APA formatting guidelines and the Turnitin™ software is also provided prior to the selection of a Capstone Project topic. (0.5 credit hour). *Prerequisites: MSPA 1382, 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 Introduction to Clinical 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 1363 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 Introduction to Clinical Medicine (ICM) courses. When combined with Clinically-Oriented Anatomy, Physiology and the ICM 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 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 Introduction to Clinical Medicine (ICM) I: This is the first course in the four-part ICM series covering the pathology, 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 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 Introduction to Clinical Medicine (ICM) II: This is the second course in the ICM series covering the pathology, 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 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 Introduction to Clinical Medicine (ICM) III: This is the third course in the ICM series covering the pathology, 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 pediatric 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 Capstone 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 Introduction to Clinical Medicine (ICM) IV: This is the final course in the ICM series covering the pathology, 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 neurology, emergency medicine and geriatrics. (6.5 credit hours) *Prerequisites: MSPA 1394, MSPA 1382, MSPA 1395*

PA 2302 Psychiatry Supervised Clinical Practice Experience: The Psychiatry supervised clinical practice experience (SCPE) is a 4-week required inpatient and/or outpatient experience that emphasizes the performance of the psychiatric history and physical examination, diagnostic work-up, treatment and management of patients in the clinical and/or hospital setting. Focus will also be on the care of the patient that presents to the behavioral medicine setting with emergent, acute and chronic health needs with the goal of applying the knowledge and skills gained to this as well as other clinical medicine settings. (4.0 credit hours)

PA 2303 Supervised Clinical Practice Experience: The Emergency Medicine SCPE is a 4-week required experience. Upon completion of this SCPE, the physician assistant student will be able to elicit a problem-oriented medical history and physical examination, obtaining indicated laboratory and/or diagnostic studies and assessing the results, formulate a management plan and assist in the implementation of appropriate therapy for common problems encountered in the emergency setting with emergent and acute health needs. Students will continue to develop skills in clinical reasoning, inter-professional relationship building and communication. By the end of this course, students will be able to apply the knowledge and skills gained in this SCPE to other clinical medicine settings. (4.0 credit hours)

PA 2309 Elective Supervised Clinical Practice Experience: The Elective SCPE is an 8-week required inpatient and/or outpatient experience that emphasizes the performance of the patient history and physical exam, screening techniques, diagnostic procedures and management plans appropriate to the assigned area. By the end of this course, students will be able to apply the knowledge and skills gained in this SCPE to other clinical medicine settings. (8.0 credit hours)

PA 2333 Women's Health Supervised Clinical Practice Experience: The Women's Health SCPE is a 2-week

required inpatient and/or outpatient experience emphasizing the performance of the gynecological history and physical examination, screening techniques, diagnostic procedures and management plans. Focus will also be on the care of women that present with acute, chronic, emergent and preventive health needs including but not limited to pre-natal care, menstrual abnormalities, contraceptive counseling, menopause and sexually transmitted infections. By the end of this course, students will be able to apply the knowledge and skills gained in this SCPE to other clinical medicine settings. (2.0 credit hours)

PA 2334 Pediatric Supervised Clinical Practice Experience: The Pediatric SCPE is a 2-week required inpatient and/or outpatient experience that emphasizes the performance of age- and gender-appropriate medical history and physical examinations, screenings and diagnostic procedures, obtaining indicated lab studies and assessing the results, formulating a management plan and assisting in the implementation of appropriate therapy for common problems encountered in the pediatric setting. Focus will be on the care of the pediatric patients (and their legal guardian) with emergent, acute, chronic and preventive health needs. Students will continue to develop skills in clinical reasoning, inter-professional relationship building and communication. By the end of this course, students will be able to apply the knowledge and skills gained in this SCPE to other clinical medicine settings. (2.0 credit hours)

PA 2335 Surgery Supervised Clinical Practice Experience: The general Surgery SCPE is a 4-week surgical experience. During the course a student will have hands-on experiences in pre-, intra- and post-operative care of the general surgery patient. This setting will emphasize the use of a surgery-focused history, physical examination, diagnostic lab and imaging appropriate to the patient and circumstances of the surgery. The student will actively participate during the surgery and follow-up care. Focus will be on the care of surgical patients across the life span and can include emergent, acute, chronic and preventative health needs. Students will continue to develop skills in clinical reasoning, communication and interprofessional relationships. (4.0 credit hours)

PA 2336 Internal Medicine Supervised Clinical Practice Experience: The Internal Medicine SCPE is a 12-week clinical experience in the ambulatory and/or hospital setting. The course will emphasize the use of age- and gender-specific history and physical examination, differential diagnosis development, lab and imaging and critical reasoning to determine diagnosis and develop treatment plans. The course may have general internal medicine and related subspecialties by completion. Students will focus on emergent, acute, chronic and preventive health needs. Students will develop clinical reasoning, communication and interprofessional relationship skills. (12.0 credit hours)

PA 2337 Family Medicine Supervised Clinical Practice Experience: The Family Medicine SCPE is a 12-week experience in an ambulatory setting that emphasizes the performance of age- and gender- appropriate histories and physical examinations, screening and diagnostic procedures, developing differential diagnosis lists, processing appropriate diagnostics to establish diagnoses and creating patient management plans. Focus will be on the care of patients throughout the lifespan that present with emergent, acute, chronic and preventive health needs. Students will continue to develop skills in clinical reasoning, inter-professional relationship building and communication. (12.0 credit hours)

PA 2340A Program to Practice II: 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 Capstone 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. In this course students log patient encounters while participating in their supervised clinical practice experiences (SCPEs). Professionalism and issues related to the transition from school to practicing medicine are addressed. (1.0 credit hour) *Prerequisites: MSPA 1340, MSPA 1376C, MSPA 1381, MSPA 1389B, MSPA 1393B, MSPA 1398*

PA 2340B Program to Practice II: 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 Capstone Project should be completed during this course. Students continue to log SCPE patient encounters. Professionalism and issues related to the transition from school to practicing medicine are addressed in this course. Students will be tested in the SIM and SPAL environments on medical knowledge, technical skills, and the student's overall commitment to patient welfare. Written assignments and oral case

presentations are used to monitor student progress in meeting program expectations. (0.5 credit hour) *Prerequisite: PA 2340A*

PA 2340C Program to Practice II: It is during this spring semester course the second-year PA student completes his/her Capstone Project, delivers an oral presentation, participates in the SIM and SPAL assessments and prepares for the national certification exam by sitting for comprehensive examinations. Students continue to log SCPE patient encounters. Written assignments and oral case presentations are used to monitor student progress in meeting program expectations; professionalism and issues related to the transition from school to practicing medicine are addressed. The final component of this course is a summative evaluation of the student's performance throughout the entire PA program conducted by their academic advisor.(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 D.O.-D.P.M. Neuroanatomy course, D.P.T. 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. The course is 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 2076 From Stage to Clinic: Improv Skills in a Health Care Setting: Through the experiential study of improvisational 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. Students will practice developing and

implementing engaging lessons utilizing active learning approaches. Students will be assessed on their understanding and ability to justify instructional choices. Culminating experiences will include the development of a teaching philosophy and exposure to the academic role of teaching via the delivery of lessons and the completion of self- and peer-assessment. (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 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

Program Outcomes

To review the program's goals and outcome statistics and how they compare to national averages, please visit the program's 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:

- Show professional promise in the judgment of the faculty and receive the faculty's recommendation for graduation.
- 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.
- Maintain a cumulative GPA of 2.0 or higher based on a 4.0 scale.
- Be of good moral character and emotionally stable.
- Satisfactorily discharge all financial obligations to the University.
- 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.
- Attend graduation ceremony.

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 97% over the last five years, compared to 94% 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.

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 M.P.H. program that supports faculty, staff and student excellence and upholds the mission of Des Moines University.

Objectives

Educational Objectives

- 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].
- 100% of graduates will attain 70% or higher in all eight M.P.H. competency domains.
- 90% of students who take the CPH exam will pass.
- 90% of all M.P.H. courses will receive a student course evaluation with a mean value of 4.0 or higher (1 = poor, 5 = excellent).
- 80% of all M.P.H. graduates will report "yes" the program helped them develop entry-level competency in public health.
- 80% of all alumni will rate themselves as "exemplary" or "proficient" on the public health competency self-assessment.
- 80% of employers surveyed will report M.P.H. graduates as "exemplary" or "proficient" in public health practice.
- 50% of M.P.H. courses will include content and assessment linked to the cultural competency domain.
- Each year, at least two M.P.H. program faculty will participate in at least one interdisciplinary education offering of Des Moines University students.
- Instructor peer-reviews to support continuous quality improvement will occur every other year for all faculty (core and secondary).
- Each year, the M.P.H. program will offer at least two global health electives to support the global health initiatives of Des Moines University.

Service Objectives

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

Research Objectives

- 50% of core faculty will engage in research collaborations with external academic partners each year.
- 50% of core faculty will engage in research collaborations with community partners each year.

- 50% of core faculty will publish at least one peer-reviewed article each year.
- 15% of M.P.H. graduates will have participated in public health research through extracurricular activities or through course work.
- 100% of graduates will complete the "Responsible Conduct of Research" training.
- 80% of faculty research projects will involve student collaborators.

Administrative Objectives

- 100% of core faculty will attend at least one professional development activity in their field of expertise per year.
- The program, in collaboration with partners across the university, will provide at least one professional development activity per year to all faculty.
- Annually review a program-wide curriculum map that is the basis for curricular modifications and curricular improvement initiatives.
- Support the diversity initiatives of Des Moines University by awarding at least two diversity scholarship awards per year.
- 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

Application to the Master of Public Health program is accepted through the Schools of Public Health Application Service (SOPHAS).

Detailed information regarding the process can be found on the MPH program admissions website.

Applicants will receive a response to their application status after files have been reviewed by the Admissions Committee.

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.

Sensory

- Ability to communicate verbal in the English language to elicit information from and provide information to faculty, fellow students, and health care professionals.
- Ability to communicate in written English with faculty, fellow students and health care professionals.
- Ability to comprehend written communications (i.e., read, understand and follow directions in the English language) to fulfill the usual tasks and duties of a health care manager in training.
- Ability to hear with or without assistive devices to elicit information from faculty, fellow students and health care professionals.
- Ability to listen and send clear and convincing messages.

Motor

- Ability to coordinate gross and fine muscular movements, equilibrium and the functional use of the senses of touch and vision reasonably required to operate a computer keyboard and to read a computer screen or have the appropriate accommodation.

- Ability to maneuver in the health care organization (hospital, physician practice, outpatient clinic).

Intellectual – Conceptual, Integrative and Qualitative Abilities

- Ability to measure, calculate, reason, analyze and synthesize to solve problems.
- Ability to use basic computer tools (i.e., Microsoft office applications or equivalent) for homework assignments.
- Ability to integrate didactic and experiential learning to solve problems with critical judgment and analysis.

Behavioral

- Ability to tolerate and function effectively under stress.
- Ability to concentrate in the presence of distracting conditions.
- Ability to concentrate for prolonged periods.
- Ability to relate in a professional manner to faculty, patients, families and other health care professionals.
- Ability to accept criticism and to respond by appropriate modification of behavior.
- Ability to read and regulate emotions as well as to recognize their impact on work performance and relationships, especially in the face of angry or emotionally charged people.
- Ability to adapt and be flexible when confronted with changing environments, uncertainty and ambiguity.
- Ability to show compassion, empathy, integrity, concern and interest for others, interpersonal skills and motivation.
- Ability to display values of honesty and integrity consistently.
- Ability to manage time effectively to balance multiple priorities.

Social

- Ability to develop and sustain mature, sensitive and effective relationships with a web of faculty, colleagues, fellow students and other health care professionals.
- Ability to network with other health care professionals and to have the ability to engage in conversation with appropriate nonverbal (i.e., eye contact, cues, posture) and verbal communication.
- Ability to de-escalate disagreements and orchestrate resolutions.

Curriculum Overview and Outline

The M.P.H. program offers concentrations in three areas, General Public Health, Health Promotion or Health Service Management. Students must complete 46 total credit hours that include 19 credit hours in the Public Health Core, 15 credit hours of concentration core, 6 credit hours of electives and 6 credit hours of culminating experiences.

Required Courses – Public Health Core

MPH 620, Introduction to Graduate School and the M.P.H. Program, 1.0 credit hour
MPH 621, Overview of the U.S. Health Care System, 3.0 credit hours
MPH 650, Basic Statistics and Research, 3.0 credit hours
MPH 651, Occupational and Environmental Health, 3.0 credit hours
MPH 653, Public Health Administration and Management, 3.0 credit hours
MPH 654, Social and Behavioral Sciences, 3.0 credit hours
MPH 655, Epidemiology, 3.0 credit hours

Required Courses – Generalist Concentration

MPH 625, Health Care Financial Management I, 3.0 credit hours
MPH 645, Community Health Program Planning and Evaluation, 3.0 credit hours
MPH 652, Public Health Law, Ethics and Policy, 3.0 credit hours
MPH 656, Public Health Biology, 3.0 credit hours (Replaces MPH 657)
MPH 671, Community Research Methods, 3.0 credit hours

Required Courses – Health Promotion Concentration

MPH 712, Maternal and Child Health, 3.0 credit hours

MPH 645, Community Health Program Planning and Evaluation, 3.0 credit hours

MPH 652, Public Health Law, Ethics and Policy, 3.0 credit hours

MPH 671, Community Research Methods, 3.0 credit hours

MPH 712, Maternal and Child Health, 3.0 credit hours

MPH 783, Foundations of Global Health, 3.0 credit hours

Required Courses – Health Service Management Concentration

MPH 625, Health Care Financial Management I, 3.0 credit hours

MPH 629, Organizational Development, 3.0 credit hours

MPH 631, Health Information Management, 3.0 credit hours

MPH 644, Health Care Economics and Policy Theory, 3.0 credit hours

MPH 652, Public Health Law, Ethics and Policy, 3.0 credit hours

Required Courses – Culminating Experiences

MPH 658, Public Health Internship, 3.0 credit hours

MPH 659, Capstone Seminar, 1.0 credit hour

MPH 660, Public Health Capstone, 2.0 credit hours

MPH 749, Field Based Learning, 3.0 credit hours (*students in the Health Services Management concentration choose MPH 749 or MPH 659 and MPH 660*).

Elective Courses

MPH 711, Grant Writing, 3.0 credit hours

MPH 712, Maternal and Child Health, 3.0 credit hours (*Health Promotion concentration core, cannot be used as elective*)

MPH 756, Current Topics in Public Health, 1.0 credit hour

MPH 766, Geographic Information Systems, 3.0 credit hours

MPH 768, Policy and Practice: Emergency Preparedness, 3.0 credit hours

MPH 772, Cardiovascular Epidemiology, 3.0 credit hours

MPH 773, Nutritional Epidemiology, 3.0 credit hours

MPH 774, Infectious Diseases of Humans and Animals, 3.0 credit hours

MPH 778, Secondary Data Analysis, 3.0 credit hours

MPH 783, Foundations of Global Health, 3.0 credit hours

MPH 785, Global Health Policy, Practice and Partnerships, 2.0 credit hours

MPH 786, Health Education/Health Promotion: Techniques in Technology, 2.0 credit hours

MPH 897-899, Independent Study, 1.0-3.0 credit hours

**Any course offered in the M.H.A. curriculum may be taken to fulfill M.P.H. elective credit requirements.*

Curriculum Overview and Suggested Sequence

Course Descriptions

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 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 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 with emphasis on 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)

MPH 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)

MPH 644 Health Care Economics and Policy: An introduction to the theoretical foundations of health care economics and its application to the health care industry and payment systems and to the field of health policy both at the national and state level. The course presents health care economics as a main source of rapid changes in health care markets, and includes studies of provider behavior, insurance, expenditures, market structure, competition, costs, utilization, and access on the economics side, and cost-and case-based reimbursement and capitation on the reimbursement side. This course will also provide students with an understanding of the process of health policy analysis and its implementation. (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 655. Co-requisite: 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 621, MPH 650*

MPH 656 Public Health Biology: This course provides general principles of the biological sciences and offers populations perspective on biological concepts related to public health issues including malnutrition, chronic and infectious diseases. The course will help students to understand the development, treatment and prevention of disease, and to assess risk from potentially hazardous agents and behaviors of public health issues. It is intended for students regardless of their backgrounds in the biological sciences. Lectures will include the appropriate background material in biology, physiology, nutrition, genetics, and pathophysiology to allow students to understand the biological mechanisms of disease prevention and progression. Specific topics will include diseases and conditions that are most frequently discussed in current public health settings, including infectious disease, cardiovascular disease, obesity, cancer and vaccines. (3 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 659 Capstone Seminar: The Capstone seminar prepares students for the MPH culminating

experience. During this course, students will explore policies and procedures related to finding opportunities and designing an appropriate project. Students will review compliance issues related to the culminating project (e.g., IRB/IACUC/Biosafety/HIPPA). Each student will begin writing their literature review and capstone proposal during the course. Common barriers and challenges to during the capstone will be discussed. Expectations for completing the capstone will be presented. (1.0 credit hour)

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 M.P.H. 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 M.P.H. 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; Co-requisite: 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. Co-requisite: MPH 671.*

MPH 712 Maternal and Child Health: The purpose of this course is to provide students an introduction to key causes of morbidity and mortality throughout infancy, childhood, adolescence and pregnancy. Attention is focused on the epidemiology of maternal and childhood diseases while taking into consideration key social, political, behavioral and environmental factors that influence maternal and child well-being. Additionally, global trends in disparities, policies, and research needs are discussed. Elective for students matriculating prior to fall 2016; required in the Health Service Management concentration for students matriculating in fall 2016 and after. (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. Elective for students matriculating prior to fall 2016; required in the Health Service Management concentration for students matriculating in fall 2016 and after. (3.0 credit hours)

MPH 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. (3.0 credit hours). *Prerequisites: MPH 620, MPH 621, MPH 645, MPH 650, MPH 652, MPH 654, MPH 655, MPH 657; Co-requisite: MPH 671*

Elective Courses

INST 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

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 712 Maternal and Child Health: The purpose of this course is to provide students an introduction to key causes of morbidity and mortality throughout infancy, childhood, adolescence and pregnancy. Attention is focused on the epidemiology of maternal and childhood diseases while taking into consideration key social, political, behavioral and environmental factors that influence maternal and child well-being. Additionally, global trends in disparities, policies and research needs are discussed. Elective for students matriculating prior to fall 2016; required in the Health Service Management concentration for students matriculating in fall 2016 and after. (3.0 credit hours)

MPH 756 Current Topics in Public Health: This course utilizes the lectures and learning opportunities of professional conferences. The DMU M.P.H. 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 772 Cardiovascular Epidemiology: This course is aimed to enable the students to become familiar with principles, methods and issues in the epidemiology of cardiovascular disease. This course focuses on public health-oriented coronary artery disease, and its major traditional and novel risk factors; and also covers other topics such as cardiovascular prediction models, hypertension, stroke, sudden cardiac death, and subclinical cardiovascular disease. The format includes seminar-style courses, lectures, group activities, and projects. (3.0 credit hours)

MPH 773 Nutritional Epidemiology: The purpose of this course is to introduce students to the discipline of nutritional epidemiology. We will focus on the application

of epidemiological methods to studies of diet, nutrition, and diseases. Students completing this course will understand the basic principles of nutritional epidemiology and will be able to apply them in reading the literature and participating in nutrition research projects. The format includes seminar-style courses, lectures, group activities, and projects. (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 778 Secondary Data Analysis: This course introduces students to the methods of searching for, obtaining, storing, manipulating and analyzing publicly available research data. Students will get hands-on experience of research and data handling including data cleaning, standardization and analysis. In addition, students will also learn to write a research report for publication. (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. Elective for students matriculating prior to fall 2016; required in the Health Service Management concentration for students matriculating in fall 2016 and after. (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. (2.0 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. (2.0 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 M.P.H. 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 experiences 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 five years from admission to complete the M.H.A. Program.

Mission

To develop professionals who are innovative, critical thinkers, committed to a rigorous evidence-based leadership resulting in a radically improved health care delivery system.

Vision

To engage professionals who create radical improvements in health care through leadership, scholarship and service to the profession.

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 M.H.A. Program Admissions Requirements website as well as the M.H.A. Program Admissions Criteria website.

Program Application Process

Application to the Master of Healthcare Administration program is accepted through the Schools of Public Health Application Service (SOPHAS).

Detailed information regarding the process can be found on the M.H.A. Program Admissions website.

Applicants will receive a response to their application status after files have been reviewed by the Admissions Committee.

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.

Sensory

- Ability to communicate effectively in the English language to elicit information from and provide information to faculty, fellow students and health care professionals.
- Ability to communicate in written English with faculty, fellow students and health care professionals.
- Ability to comprehend written communications (i.e., read, understand and follow directions in the English language) to fulfill the usual tasks and duties of a health care manager in training.
- Ability to receive information (by hearing directly or with assistive devices) from faculty, fellow students and health care professionals.
- Ability to communicate clear and convincing messages.

Motor

- Ability to coordinate gross and fine muscular movements, equilibrium and the functional use of the senses of touch and vision reasonably required to operate a computer keyboard and to read a computer screen or have the appropriate accommodation.
- Ability to maneuver university campus for required on-campus experiences.

Intellectual – Conceptual, Integrative and Qualitative Abilities

- Ability to measure, calculate, reason, analyze and synthesize to solve problems.
- Ability to use basic computer tools (i.e., Microsoft Office applications or equivalent, learning management system, etc.) to fully participate in courses and complete homework assignments.
- Ability to integrate didactic and experiential learning to solve problems with critical judgment and analysis.

Behavioral

- Ability to tolerate and function effectively under stress.
- Ability to concentrate in the presence of distracting conditions.
- Ability to concentrate for prolonged periods.
- Ability to relate in a professional manner to faculty, patients, families and other health care professionals.
- Ability to accept criticism and to respond by appropriate modification of behavior.
- Ability to read and regulate emotions as well as to recognize their impact on work performance and relationships, especially in the face of angry or emotionally charged people.
- Ability to adapt and be flexible when confronted with changing environments, uncertainty and ambiguity.
- Ability to show compassion, empathy, integrity, concern and interest for others, interpersonal skills and motivation.
- Ability to display values of honesty and integrity consistently.
- Ability to manage time effectively to balance multiple priorities.

Social

- Ability to develop and sustain mature, sensitive, and effective relationships with a web of faculty, colleagues, fellow students and other health care professionals in face to face and virtual environments.
- Ability to network with other health care professionals and to have the ability to engage in meaningful communication in face-to-face and virtual environments.
- Ability to de-escalate disagreements and orchestrate resolutions.

Curriculum Overview and Outline

The program's blend of on-campus experiences 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

MHA 619, Health Care Human Relations Management, 3.0 credit hours
MHA 621, Overview of the U.S. Health System, 3.0 credit hours
MHA 625, Health Care Financial Management I, 3.0 credit hours
MHA 626, Organizational Behavior and Leadership Theory, 3.0 credit hours
MHA 627, Legal and Ethics I: Clinical Decision Making, 2.0 credit hours
MHA 650, Health Care Statistics and Research, 3.0 credit hours
MHA 801, Professional Development Seminar I: Blending Theory with Practice, 2.0 credit hours

Block II

MHA 628, Legal and Ethics II: The Business of Health Care, 2.0 credit hours
MHA 629, Organizational Development I: Systems Improvement, 3.0 credit hours
MHA 630, Health Care Financial Management II, 3.0 credit hours
MHA 631, Health Information Management, 3.0 credit hours
MHA 633, Population Health and Managerial Epidemiology, 2.0 credit hours
MHA 742, Strategy Formulation and Implementation, 2.0 credit hours
MHA 802, Professional Development Seminar II: Blending Theory with Practice, 1.0 credit hour

Block III

MHA 642, Long-Term Care Internship, 3.0 credit hours*
MHA 644, Health Care Economics and Policy, 3.0 credit hours
MHA 646, Strategic Marketing and Communications, 2.0 credit hours
MHA 648, Organizational Development II: Process Development, 3.0 credit hours
MHA 748, Organizational Development III: Tools Application, 1.0 credit hour
MHA 749, Field Based Learning, 3.0 credit hours*
MHA 803, Professional Development Seminar III: Blending Theory with Practice, 1.0 credit hour

** One of these courses is required*

Curriculum Overview and Suggested Sequence

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. (3.0 credit hours) *Co-requisite: 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. (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 with emphasis on 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 M.H.A. 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 and payment systems and to the field of health policy both at the national and state level. The course presents health care economics as a main source of rapid changes in health care markets, and includes studies of provider behavior, insurance, expenditures, market structure, competition, costs, utilization, and access on the economics side, and cost-and case-based reimbursement and capitation on the reimbursement side. This course will also provide students with an understanding of the process of health policy analysis and its implementation. (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 healthcare 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: This course examines the theory and practice of organizational strategy development and implementation. The student will be exposed to the history of modern strategy theory, analytical frameworks and decision methodologies. Finally, implementation issues will be addressed.

This course makes extensive use of business case methodology, with a focus on how strategies are actually developed and implemented. It combines four on-campus

sessions and two online modules that continue over the remainder of the semester. (2.0 credit hours) *Prerequisites: MHA 801, MHA 619. Co-requisite: 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 M.H.A. 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. (1.0 credit hour) *Prerequisites: MHA 802, MHA 742, MHA 648. Co-requisite: 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. (3.0 credit hours) *Prerequisite: **Students beginning their degree prior to fall 2012:** 36.0 credit hours of core M.H.A. courses; it is recommended MHA 749 be the last course the student completes. **Students beginning their degree fall 2012 or later:** completion of all M.H.A. courses; MHA 803 and 748 are suggested co-requisites. MHA 749 must be the final course.*

MHA 801 Professional Development Seminar I: Blending Theory with Practice: The M.H.A. Professional Development Seminars 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 on-line degree needed by working professionals, the on-campus 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.

This seminar begins during the on-campus experience and continues online through the end of the term. The student is responsible for purchasing required textbooks. (2.0 credit hours) *Co-requisite: MHA 619*

MHA 802: Professional Development Seminar II: Blending Theory with Practice: The M.H.A. Professional Development Seminars 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 on-line degree needed by working professionals, the on-campus 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.

This seminar begins during the on-campus experience and continues online through the end of the term. The student is responsible for purchasing required textbooks. (1.0 credit hour) *Prerequisites: MHA 801, MHA 619. Co-requisite: MHA 742*

MHA 803 Professional Development Seminar III: Blending Theory with Practice: The M.H.A. Professional Development Seminars 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.

This seminar begins during the on-campus experience and continues online through the end of the term. The student is responsible for purchasing required textbooks. (1.0 credit hour) *Prerequisite: MHA 802, MHA 742. Co-requisite: MHA 748*

Elective Courses

INST 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

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 M.H.A. 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 D.P.T. program supports the development of health care practitioners via the utilization of innovative and collaborative learning experiences focused on enhancing quality of life via the science of human movement. The program prepares graduates who are competent in advancing health and serving society in diverse healthcare environments that are reflective of contemporary practice.

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, care givers, 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.

Biological Sciences • *A course each of human anatomy and human physiology.* • *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.* • *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 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.*	16 semester hours
Chemistry *A two-semester chemistry sequence is required. Each course must include a lab. Courses designed for science or health science majors are preferred.*	8 semester hours
Physics *A two-semester physics sequence is required. Each course must include a lab. Courses designed for science or health science majors are preferred.*	8 semester hours
Statistics *This may be taken either through the math or psychology department.*	1 course
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.*	3 courses

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.*	2 courses
Humanities/Social Sciences	2 courses
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 D.P.T. 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 D.P.T. 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 status 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. 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.

1. **Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises within the curriculum. They must be able to observe a patient accurately at a distance and close at hand.
2. **Communication:** Candidates and students should be able to speak, hear, observe, and understand the English language in order to elicit information; examine patients; describe changes in mood, activity and posture; and perceive nonverbal communications. They must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They must also be able to communicate effectively and efficiently in oral and written form with all members of the health care team.
3. **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required to provide safe and effective physical therapy treatment to patients. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
4. **Sensory:** Since candidates and students need enhanced ability in their sensory skills, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities. This would include individuals with significant previous burns, sensory motor deficits, cicatrix formation and many malformations to the upper extremities. Students must be willing and able to touch and examine members of the same as well as the opposite gender.
5. **Strength and Mobility:** Physical therapy treatment often requires upright posture with sufficient lower extremity and body strength; therefore, individuals with significant limitations in these areas would be unlikely to succeed. Mobility to attend to emergency codes and to perform such maneuvers as CPR is also required.
6. **Visual Integration:** Consistent with the ability to assess asymmetry, range of motion and tissue texture changes, it is necessary to have adequate visual capabilities for proper evaluation and treatment integration.
7. **Intellectual, Conceptual, Integrative and Quantitative Abilities:** These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem solving, the critical skill demanded of physical therapists, requires all of these intellectual abilities. In addition, candidates and students should be able to comprehend three-dimensional relationships and understand the spatial relationships of structures.
8. **Behavioral and Social Attributes:** Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. Candidates and students must be able to work effectively as a

member of a health care team; tolerate physically taxing and stressful workloads; adapt to changing environments; display flexibility; learn to function in the face of uncertainties inherent in the physical problems of many patients; and to be free of impairments due to substance abuse. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admissions and educational processes. Students must be accepting and non-judgmental when caring for patients whose spiritual beliefs, culture, ethnicity, socioeconomic background or sexual orientation differ from their background.

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

DPT 1620, Clinical Applications – Health Promotion, 1.5 credit hours
DPT 1640, Research Design and Statistics, 2.0 credit hours
DPT 1650, Foundational Sciences – Anatomy, 9.0 credit hours
DPT 1651, Foundational Sciences – Health Promotion, 4.0 credit hours
DPT 1660, Patient Management – Health Promotion, 2.0 credit hours
DPT 1690, Professional Issues and Development 1, 2.5 credit hours

Year 1 Spring Term

DPT 1621, Clinical Applications – Musculoskeletal Lower Quadrant, 2.0 credit hours
DPT 1641, Epidemiology and Evidence Based Practice, 1.0 credit hour
DPT 1652, Foundational Sciences – Musculoskeletal Lower Quadrant, 4.5 credit hours
DPT 1661, Patient Management – Musculoskeletal Lower Quadrant, 8.0 credit hours
DPT 1680, Health Promotion and Prevention Practicum, 2.0 credit hours
DPT 1691, Professional Issues and Development 2, 1.0 credit hour

Year 2 Summer Term

DPT 2622A, Clinical Applications – Musculoskeletal Upper Quadrant 1, 1.0 credit hour
DPT 2653A, Foundational Sciences – Musculoskeletal Upper Quadrant 1, 2.5 credit hours
DPT 2662A, Patient Management – Musculoskeletal Upper Quadrant 1, 5.0 credit hours
DPT 2692A, Professional Issues and Development 3, 0.5 credit hour

Year 2 Fall Term

DPT 2622B, Clinical Applications – Musculoskeletal Upper Quadrant 2, 0.5 credit hour

DPT 2630, Clinical Internship 1, 10.0 credit hours

DPT 2653B, Foundational Sciences – Musculoskeletal Upper Quadrant 2, 1.0 credit hour

DPT 2662B, Patient Management – Musculoskeletal Upper Quadrant 2, 3.0 credit hours

DPT 2692B, Professional Issues and Development 4, 1.0 credit hour

Year 2 Spring Term

DPT 2623, Clinical Applications – Neuromuscular Systems, 2.5 credit hours

DPT 2654, Foundational Sciences – Neuromuscular Systems, 3.0 credit hours

DPT 2663, Patient Management – Cardiopulmonary Systems, 3.0 credit hours

DPT 2664, Patient Management – Neuromuscular Systems, 7.0 credit hours

DPT 2693, Professional Issues and Development 5, 2.5 credit hours

Year 3 Summer Term

DPT 3631, Clinical Internship 2, 10.0 credit hours

Year 3 Fall Term

DPT 3610, Civic Engagement, 1.0 credit hour

DPT 3670, Practice Topics, 10.0 credit hours

DPT 3694, Professional Issues and Development 6, 3.5 credit hours

Year 3 Spring Term

DPT 3632, Clinical Internship 3, 8.0 credit hours

DPT 3633, Clinical Internship 4, 8.0 credit hours

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

Curriculum Features
Curriculum Sequence

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 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 series concentrate on lower quadrant musculoskeletal disorders across a diverse patient population. The foundational skills needed for practice including basic examination procedures, determination of a diagnosis and prognosis, and development of a plan of care are addressed. Transfer training and the safe use of assistive gait devices are also included within the course content. Thermal biophysical agents are also a major component. 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. (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: This 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 an 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 and locomotion are primary topics. Pain pathways and mechanisms are presented. Motor behavior with an emphasis in motor learning is introduced. (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. Exercise testing and prescription are covered. An interprofessional experience related to nutrition and nutritional health is also included. (2.0 credit hours)

DPT 1661 Patient Management – Musculoskeletal Lower Quadrant: 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 medical and surgical management of patients with musculoskeletal dysfunction of the lower quadrant. (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 first course in the series covers many topics, including orientation to the physical therapy profession and scope of practice. Personal and professional behaviors, with an emphasis on student growth and development are discussed. Prevention and health promotion needs of a diverse population are core components of this course. Students are introduced to interprofessional effective patient centered care and the development of communication skills. The introduction of the Diversity Health Series, an interactive cultural learning experience utilizing film and discussion to raise the cultural awareness, knowledge and skills of health care providers is included. (2.5 credit hours)

DPT 1691 Professional Issues and Development 2: This second course in the series addresses theoretical and practical applications of patient/client education, health literacy, documentation 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 birth to death 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 course focus on the evaluation and interventions associated with head, cervical and thoracic spine dysfunction. Cases are included to continue the development of examination skills. The determination of a diagnosis, prognosis and plan of care for diverse client/patient problems is integrated. The application of electrotherapeutic modalities is included. Students will be required to participate in a DMU sponsored community screening or clinical observations. (1.0 credit hour)

DPT 2622B Clinical Applications – Musculoskeletal Upper Quadrant 2: This course 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 full-time supervised clinical experience is designed to provide students with the opportunity to utilize skills and clinical reasoning in the management of patients with musculoskeletal disorders. Students will integrate the five elements of patient management: examination, evaluation, diagnosis, prognosis and intervention. Patient caseloads during the clinical experience may vary by student and facility and could range from specialty clinics to general hospital outpatient departments. Students will complete the outpatient clinical education requirement during this experience. (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 the TMJ. Lifespan issues are a significant focus. Geriatrics and normal development of the newborn through year one is presented. Basic pharmacology principles are introduced. 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 course focuses on the neural basis of movement, relating structure to function and describing the integrated control of posture, balance and gait in both normal and abnormal systems. Additionally, special topics that are important to movement control, including sleep, social and cognitive development and genetics are presented. A significant amount of the course work involves using current research evidence to understand movement control and its application to clinical practice. (3.0 credit hours)

DPT 2662A Patient Management – Musculoskeletal Upper Quadrant 1: 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. 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 interventions specific to musculoskeletal system impairments is covered. The

course also includes content related to the medical and surgical management of the client/patient with musculoskeletal pathologies within these areas. Occupational medicine concepts are covered. (5.0 credit hours)

DPT 2662B Patient Management – Musculoskeletal Upper Quadrant 2: This course is a continuation of DPT 2662A. 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 interventions specific to musculoskeletal system impairments is covered. The course also includes content related to the medical and surgical management of the client/patient with upper extremity musculoskeletal pathologies. (3.0 credit hours)

DPT 2663 Patient Management – Cardiopulmonary Systems: The management of clients/patients with cardiovascular/pulmonary disorders is the key content of this course. Course work related to the medical and surgical management of the client/patient with cardiovascular/pulmonary pathologies is covered. 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: This course progresses the learner through the patient management model of examination, evaluation, diagnosis, prognosis, intervention and discharge planning for patients with neuromuscular conditions. This includes the care and management of patients across the lifespan, including adult and pediatric populations. Throughout this course, medical management and functional related outcomes are highlighted. Hands on problem solving are emphasized during the laboratory components. The course utilizes the integration of motor control, motor learning, and motor development during the planning of interventions for movement related disorders. (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 in various physical therapy practice settings. (0.5 credit hour)

DPT 2692B Professional Issues and Development 4: The fourth course in the Professional Issues and Development series includes content related to professional behaviors and ethical issues associated with client/patient care. This course includes a continuation of the Diversity Health Series. (1.0 credit hour)

DPT 2693 Professional Issues and Development 5: The course addresses content related to management principles needed for a successful physical therapy practice. Historical and present healthcare environment is explored. Current professional topics that affect delivery of healthcare are introduced and advocacy skills are practiced with participation in lobbying efforts and a mock House of Delegates. Professional career planning is continued with the development of cover letters and resumes. (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 full-time supervised clinical experience is designed to provide students with experiences in direct patient management of various patient populations. 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 will complete either the inpatient or elective clinical education requirement during this experience. (10.0 credit hours)

DPT 3632 Clinical Internship 3: This course is the first of two final full-time eight-week supervised clinical experiences completed in the last term of the third year. It is designed to provide students with experiences in direct patient management of various patient populations. 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 will complete either the inpatient or elective clinical education requirement during this experience. (8.0 credit hours)

DPT 3633 Clinical Internship 4: This course is the final full-time eight-week clinical experience designed to provide students with experiences in direct patient management of various patient populations. 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, clinical facility, and practice environment. Students will complete either the inpatient or elective clinical education requirement during this experience. (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 renal, gastrointestinal, endocrine 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. Case based learning with an emphasis on clinical decision making in patient management and efficient use of resources is utilized. 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 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. During this course the Diversity Health Series is completed and students are awarded a certificate of completion. (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 D.O.-D.P.M. Neuroanatomy course, D.P.T. 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. The course is 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 student physical therapists to conducting research in physical therapy via participation in a research project as a co-investigator. 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 2042 Book Club on Disability Awareness: During this on-line course, students will read and discuss an autobiography of an individual with a disability. Group discussion of the book will enhance understanding and perception of how individuals with disability recover and return to life tasks. Students will consider how their professional roles may impact their relationship with patients and caregivers. (1.0 credit hour)

INST 2058 Stroke Camp: The course will allow a maximum of 16 third-year D.P.T. students to provide intensive physical therapy to a small group of community-dwelling individuals, post-stroke. The students will complete pre and post-camp testing using a variety of standardized measures, develop a plan of care and administer physical therapy intervention. The small group setting will allow prompt feedback from supervising therapists to students regarding their skill set. The week-long camp will be held on the DMU Campus during the break between Clinical Internship II and Year 3 Fall Term.(2.0 credit hours)

INST 2066 Foundational Manual Skills: 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 (4–8) as a teaching/learning team. (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. Students will practice developing and implementing engaging lessons utilizing active learning approaches. Students will be assessed on their understanding and ability to justify instructional choices. Culminating experiences will include the development of a teaching philosophy and exposure to the academic role of teaching via the delivery of lessons and the completion of self- and peer-assessment. (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 the D.P.T. Program's curriculum. (1.0 credit hours) *Prerequisite: INST 2078A*

INST 2079 Yoga as Medicine: The 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. (1.0 credit hour)

INST 2080 Special Topics: Special Topics elective courses that are relevant to current issues within a profession or are related to and expand upon information taught in a required course may be developed by faculty at their discretion and with the approval of the program Curriculum Committee. (1.0 – 6.0 credit hours)

Program Outcomes

To review the program's outcome statistics (e.g., board exam pass rates, graduation rates, etc.), please visit the program outcomes section of the program's webpage.

Graduation Requirements

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

- Successful completion of all academic requirements:
    - Pass all academic course work and clinical internships.
    - Maintain a grade point average (GPA) of at least a 2.0.
- 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.
- Satisfactory resolution of all financial obligations.
- 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.

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 cohort of students was enrolled in the fall of 2015 and these students will follow a two-year plan of study model, or will 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, care givers, 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, Final offering Summer 2017
PPDPT 1602, Individual and Family Aspects of Care, 2.0 credit hours, Final offering Spring 2017
PPDPT 1603, Clinical Decision Making, 3.0 credit hours, Final offering Spring 2017
PPDPT 1604, Health Promotion and Prevention, 3.0 credit hours, Final offering Summer 2016
PPDPT 1606, Motor Control Theory and Analysis, 2.0 credit hours, Final offering Fall 2016
PPDPT 1607, Clinical Applications, 3.0 credit hours, Final offering Fall 2017
PPDPT 1609, Manual Therapy Interventions, 2.0 credit hours, Final offering Fall 2016*
PPDPT 1616, Independent Study, 1.0 – 6.0 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: This course includes models for clinical decision-making including the patient care management model as presented in the Guide to Physical Therapist Practice. Evidence-based practice, outcome assessment and the critical evaluation of research related to health care practice are components of this course. (3.0 credit hours)

PPDPT 1604 Health Promotion and Prevention: This course is designed to concentrate on the health promotion and prevention needs of diverse populations. Content includes a focus on 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, and recognizing 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 evidence-based manual therapy interventions in neuromusculoskeletal physical therapy patient management. Emphasis will be placed upon basic concepts and clinical reasoning of manual therapy for all regions of the body and diverse patient populations. (2.0 credit hours)

PPDPT 1616 Independent Study: This course is offered during the 2016-2017 academic year for students with special circumstances currently enrolled in the PPDPT curriculum. The course is also available to students for Professional Development. (1.0 – 6.0 credit hours)

Graduation Requirements

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

- Successful completion of all academic requirements:
    - Pass all academic course work.
    - Maintain a grade point average (GPA) of at least a 2.0.
- Satisfactory resolution of all financial obligations.
- 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.

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, 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) FERPA affords students certain rights with respect to their educational records. They are:

- 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.
- 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.
- 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:
    - Name, local address, telephone number.
    - DMU email address.
    - Major field(s) of study
    - Year in program(s)
    - Dates of attendance
    - Enrollment status
    - Degrees and awards received
    - Participation in officially recognized activities
- 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.

Accommodations in Educational Programming Policy

Des Moines University (DMU) is committed to an environment in which all individuals are treated with respect and dignity. Consistent with the DMU's broader non-discrimination policy, DMU does not discriminate on the basis of disability. DMU is committed to providing reasonable accommodations for students with disabilities as recognized under the Americans with Disabilities Act Amendments Act (ADAAA). An individualized assessment is made of requests for accommodation. DMU prohibits discrimination based on disability in admission and in access to programs and activities.

This policy applies to all students and accepted candidates planning to matriculate in educational programs at DMU. Failure to follow the procedures set forth in this policy may result in the denial or delay of requested accommodations.

For information relating to Service Animals, please see the Service Animals on Campus policy.

Background

A person with a disability is someone who has a physical or mental impairment that limits substantially one or more major life activities, such as caring for one's self, performing manual tasks, learning, walking, seeing, hearing, breathing and working; has a record of such an impairment; or is regarded as having such an impairment.

Although students with temporary illness or injury may not be disabled, DMU will exercise reasonable efforts to accommodate their needs during the period of temporary illness or injury.

Substantial information is necessary to allow University officials to understand the nature, extent and limitations of an impairment which affects a student's participation in educational programming and to develop reasonable ¬accommodations for such a disability. If, through an interactive process in which DMU and the student fully participate, the student fails to provide sufficient information demonstrating a disability, no accommodation will be provided. The mere assertion of a disability by a student or a family member is insufficient to establish the existence of a disability. Similarly, a prior accommodation does not demonstrate a current need for a reasonable accommodation. Current evidence of limitation(s) caused by a physical or mental impairment must be established before reasonable accommodation can be determined.

All requests for accommodation are evaluated through an individualized assessment and decisions are made pursuant to an interactive process between the student and appropriate DMU personnel. This interactive process includes the review of clinical documentation, an assessment of the student's abilities, and a determination of possible reasonable accommodations.

The University will not grant a requested accommodation when documentation requirements have not been met and/or the University considers the request to be unreasonable. The University will not fundamentally alter

its programs in order to accommodate a student. However, alternative accommodations may be offered by the University when it has denied a particular accommodation request. Granted accommodations are not effective retroactively; students will not be allowed to re-do assignments or re-take exams with accommodations that they originally took prior to requesting and receiving accommodations

Retention of Student Documents

Clinical documentation or other diagnostic information held by the Center for Teaching and Learning (CTL) (see Procedure for Requesting Accommodations, below) is kept confidential. It may be released to a third party with the student's written permission or as required by law. General information about a student's disability and accommodation request(s) may be shared with other DMU personnel or, in limited circumstances, with third parties who have a legitimate need to know. The file regarding a student's request for accommodation is maintained by the CTL and is held separately from the student's official academic record.

Student requests for accommodation and supporting information are kept in hard copy while students are actively enrolled at DMU. Student records are considered inactive following graduation, departure from DMU, failure to communicate with CTL on an incomplete request, or failure to perform, at a minimum, a yearly follow up with CTL about the granted accommodations. Students are encouraged to communicate with CTL at any time they have questions or concerns regarding their accommodations. Students remain eligible to apply for accommodations even if their file has become inactive. An electronic record of documents related to a request for accommodation is generated upon application for accommodations and retained for a period of five (5) years after the last date of active enrollment. After this time, electronic records are archived and hard copies are destroyed. In the event of a return to active enrollment, archived documents from a previous request for accommodation would not need to be resubmitted. However, additional information may be required.

Procedure for Requesting Accommodations

DMU students are expected to be actively responsible for all aspects of their enrollment. It is the expectation that students will initiate the interactive process by contacting the CTL, comply with deadlines and agreements, and follow the procedures outlined below.

Contact the Center for Teaching and Learning

DMU students requesting accommodations should contact an Educational Specialist in the CTL in person, by phone (515-271-1516) or by emailing: accommodations@dmu.edu. To allow for adequate processing time, requests for accommodations should be submitted at least three weeks before the start date for the academic year or term or immediately following an injury, illness, or onset of a mental or physical impairment that substantially limits a major life activity. Although requests will be accepted after that timeframe, the interactive process may not be completed in advance of the academic year or term start date. New students who indicate on their Technical Standards form that they will need accommodations to meet their program's technical standards will be contacted by the CTL before the start of the semester to initiate the interactive process. Students are to make all requests for accommodations to the CTL and should not request accommodations directly from a faculty member. Notification by the student of impairment to a faculty member and not to CTL may significantly slow the interactive process and accommodations determinations. All accommodations requests should be made through CTL.

Complete an Accomodations Request Form

To initiate a request for an accommodation, the student should complete a Student Request for Accommodations form. Students applying for temporary medical accommodations should complete the Student Request for Temporary Medical Accommodations form. Both forms are available online or in hard copy from CTL.

Provide Clinical Documentation

As part of the interactive process, the student must submit current clinical documentation that demonstrates a physical or mental impairment that substantially limits a major life activity of the student. With the student's written permission, the CTL may consult with the student's health care provider (as defined in the ADA – 29 CFR 825.125) for additional information. Please see the guidelines for documentation at the end of this document for more information regarding clinical documentation. *Learning or Attentional Disabilities:* Informative clinical

documentation for learning disabilities (LD) and attentional disabilities (e.g., attention-deficit hyperactivity disorder [ADHD]) includes a comprehensive diagnostic interview/consultation and neuropsychological or psycho-educational evaluation plan, which typically should have been completed no more than three years prior to admission to DMU. Please review the Guidelines for Documentation of Learning or Attentional Disabilities below.

A student's receipt of particular accommodations in a previous setting does not mean that the same accommodations will be granted or are reasonable for the student's current situation at DMU.

Students may be asked to provide updated information as needed to properly determine reasonable accommodation. Untimely submission of information may result in delays in consideration of requested accommodations. Because medical school training may include a variety of settings (classroom to clinical), accommodations granted on admission may not be reasonable for all settings to avoid compromising or fundamentally altering the essential components of a particular course or program.

Provisional Accommodations for Students with a Previous History of Accommodations with Documentation

In the event that reevaluation of an existing accommodation is necessary, a student may be provided provisional accommodations based on the previous documentation provided. Students receiving provisional accommodations must acknowledge that these accommodations will be revised as necessary and that the student bears the responsibility to provide information supporting the provisional accommodation in as timely a manner as possible. Provisional accommodations will be limited to a period of one semester, if not shorter, pending the review of the new information. Provisional accommodations may be re-affirmed, ended or modified, as appropriate for the DMU curriculum.

Implementation of Accommodations in Courses and Student's Responsibilities

The CTL will communicate by letter the accommodation(s) determined by the interactive process to the student and e-mail appropriate course instructors or coordinators and deans when the reasonable accommodation has been determined. The student has the responsibility to anticipate the need for such letters in his/her various courses/clerkships and to plan with CTL the sequence of the communications that will be needed for the courses planned for the year. Students will receive a copy of the accommodations notification sent to course coordinators. If any problem arises in the receipt of such communication by the course coordinators, the student must promptly notify CTL to ensure that the necessary steps are taken to assure that proper notification has been given. At times, students may decide they do not wish to use their accommodations for specific academic activities. Examples may include not utilizing extended time for an exam in preparation for a Board exam if a student either did not apply for accommodations or was not granted accommodations on the Boards. Students must waive their accommodation(s) by filling out a One-Time Change of Accommodations Use form available at CTL no later than one business day prior to the event for which the student has been provided a previous accommodation each time they elect to not use their accommodations. For a Monday exam, notification would usually be necessary by the end of the previous Friday. The CTL typically closes at 5:00 p.m. daily. Without this waiver, it is assumed students will be using their accommodations.

Yearly Review of Accommodations

In the interest of ensuring accommodations are appropriate and effective, there will be a yearly review of accommodations. The student will be contacted each year by the CTL to check for possible adjustments of accommodations. Certain impairments may require additional documentation. Students may discuss modification to their already-granted accommodations at any time with an Educational Specialist. Additional information may be required at any time from the student.

Inactive Requests for Accommodation

The interactive process cannot be appropriately conducted without the submission of relevant information. If all information requested by CTL is not submitted within thirty (30) calendar days of the initial request for accommodation, the request will be considered inactive. Inactive requests may be reopened by written notice to CTL and with submission of additional relevant information.

Reconsideration Requests

1. A student may make a reconsideration request for accommodation following a decision by CTL. To request reconsideration, the student must submit a written request to CTL asking for further consideration detailing the reasons the student believes the prior decision by CTL was not reasonable. Additional information may be provided by the student. The student must write a rebuttal of the decision that appropriately takes into account the reasons for denial of accommodations. If requested documents were not provided, the student should indicate why these documents are not required within the reconsideration request.
2. The student must submit an official Reconsideration of Accommodations Decision Request form to CTL within thirty (30) calendar days of the denial decision with the written rebuttal attached.
3. In most cases, the reconsideration decision will be made within ten (10) business days of the reconsideration request.

Guidelines for Supporting a Request for Accommodation

As part of the interactive process, students must submit information and meet (in person, phone, Skype, etc.) with an Educational Specialist in CTL. In instances of multiple diagnoses, students and their health care providers should provide adequate information for the accommodations requested as per the linked guidelines below. The University may request additional information.

Temporary Medical Impairments: Students requesting accommodation for a temporary medical condition should submit the Clinical Checklist for Temporary Medical Accommodations completed by a representative of their health care provider (e.g. a nurse) and be accompanied by a confirmation that clearly describes the impairment and treatment which is signed and dated by the health care provider on their official letterhead. The health care provider's name, specialty, address, and phone number must be included. Typical health care provider notes do not include sufficient information for the interactive process.

Physical Impairments: Informative documentation for physical impairments includes a report from a health care professional describing the nature of the impairment, the expected duration of the impairment, and how the impairment limits the student's major life activities. In all cases, DMU reserves the right to request additional information.

Learning or Attentional Disabilities: Informative clinical documentation for learning disabilities (LD) and attentional disabilities (e.g., attention-deficit hyperactivity disorder [ADHD]) includes a comprehensive diagnostic interview/consultation and neuropsychological or psycho-educational evaluation plan, which typically should have been completed no more than three years prior to admission to DMU.

Psychological Impairments: Informative documentation for mental impairments includes a report from a health care professional describing the nature of the impairment, the expected duration of the impairment, and how the impairment limits the student's major life activities. In all cases, DMU reserves the right to request additional information.

Guidelines for the above are available on the website.

Previous Accommodations Impact on Future Accommodations Needs

1. An accommodation granted at DMU does not guarantee an accommodation will be granted by Board or certifying examinations, nor do previously received accommodations guarantee accommodations at DMU.
2. Accommodations granted at DMU apply solely to coursework completed at DMU. Such accommodations may help the student be successful while at DMU but may not be granted by other academic or professional institutions (e.g. clinical rotation/education sites, residency placements, etc.) which may affect the students' ability to be successful in their chosen profession.
3. Should the student's needs for accommodations change while at DMU, the student should provide information demonstrating the need to CTL.

This policy is also available in the Student Handbook and on Pulse.

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 as noted below. All required courses and clinical experiences must be successfully completed for graduation.

Grade Legend Effective 2012-13

A- / A / A+	Excellent
B- / B / B+	Very Good
C / C+	Average/Above Average
C-	Below Average
F	Failure
F/C	Failure Remediated (No Course Repeat)
F/P	Pass/Fail Course Remediated (No Repeat)
P	Pass
H	Honors Pass/COM Clinical Rotations (effective 2016)
HP	High Pass/COM Clinical Rotations
W	Withdrew Prior to Course Mid-point
WP	Withdrew Passing After Mid-point
WF	Withdrew Failing After Mid-point
I	Status of Incomplete
FI	Failed to Complete Within One Year
IP	In Progress
AU	Audit
S	Satisfactory
U	Unsatisfactory
CR	Credit
NC	No Credit
TC	Transfer Credit

Grade Points Effective 2012-13

4.0	A+, A
3.7	A-
3.3	B+
3.0	B
2.7	B-
2.3	C+
2.0	C
2.0	F/C
1.7	C-
0.0	F
0.0	H, HP, P, AU, TC, CR, S (excluded from GPA)
0.0	W, WP, WF, NC, U (excluded from GPA)

The GPA is determined by dividing total quality points (grade points X credit hours) by the total number of credit hours.

Add/Drop Period

Add/drop periods are specific to each academic program as follows:

- D.O., D.P.M., D.P.T. and PA programs: Students in these programs may not add or drop required courses. Students register for the prescribed curriculum each term. A student who drops a course due to leave of absence, extended program of study or program withdrawal will be graded according to the policy outlined in the Academic Catalog and/or applicable course syllabus.
- M.H.A., M.P.H., M.S.A. and M.S.B.S. programs: An add/drop period is available to all students during the first two weeks of the fall and spring terms; one week is allowed during the summer term. Full tuition will be charged to students withdrawing from a course after the add/drop period. Note: Students must register for the M.H.A. On-Campus Experiences (MHA 801/MHA 619, MHA 802/MHA 742, MHA 803/MHA 748), MPH Internship (MPH 658) and M.P.H. Capstone (MPH 660) courses during the regular registration period.

Please note the following exceptions:

- Students in the D.O., D.P.M., D.P.T. and PA programs may add or drop an elective prior to the second course session. After this time, a grade of W will be assigned to the transcript.
- An add/drop period is available for research electives during the first four weeks of the fall and spring terms; two weeks are allowed for the summer term. A grade of W will be assigned to students dropping a research elective after the add/drop period.

Course Withdrawal

In general, if less than 50% of the course (didactic or clinical) has been given, a withdrawal (W) shall be entered on the student's record by the Registrar when a student withdraws from a course for any reason. If over 50% of the course or rotation has been completed, a student will receive a WP if they are passing at the time of withdrawal or a WF if they are failing. Students should refer to the applicable syllabus for course-specific withdrawal information as available, and to the Grading System section of the Academic Catalog for GPA calculation.

The grade of WF may make a student subject to academic review. If the student is required to retake the course (dependent upon the academic program) and fails the course in which the WF was previously given, the failed course retake will count as the second failure in that course for Academic Progress Committee procedures. The WF remains on the transcript; the F grade for the repeated attempt is posted and calculated into the GPA.

Incomplete (I) Status

The status 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 where a small fraction of work remains to be completed, such as the final examination, paper, or assignments. A student may petition for an I for medical, personal or extenuating circumstances beyond their 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 status 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 status 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 status 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.

Leave of Absence Policy

It may be necessary for a student to take a leave of absence for personal, professional, academic or medical reasons. It is expected that the student will first discuss a potential leave with the Dean or Associate Dean of their respective program/college prior to initiating the process. After the initial conversation with the student to assess their need, the Dean's designee will counsel them on the differences and implications between the types of leave. The process will then continue as outlined in the policy based on the leave selected.

Des Moines University recognizes leaves based on the following conditions:

Short Term – Faculty Discretion

Students who anticipate missing class for a scheduled medical or personal event, or experience an unexpected, emergency absence of one to three days, must work directly with the faculty members overseeing the course(s) in which they will be absent to make arrangements to make up any missed work. Faculty members are to use their discretion and course guidelines as outlined in the syllabus regarding approval of the absence and conditions for making up any missed work.

Extended Absence Contract

Extended Absence Contracts are not an option for D.O. students in the clinical phase of the curriculum.

For students who anticipate being unable to participate in all course requirements or activities for a defined period of time from four to fifteen (4-15) consecutive didactic class days or four to twenty-one (4-21) clinic days, the Extended Absence Contract is required. This provides structure, uniformity, and communication between the student, faculty, program/College administration, and all Student Services departments for these extended absences. The contract must be signed and approved by all parties at least 14 days prior to the anticipated absence, or within 48-hours of the onset of an emergency or unexpected circumstance. No more than one extended absence contract is allowed within a 30-day period. Multiple requests for extended absence contracts within the same academic terms will require additional review by the respective program's Dean or Dean's designee. Any absence that will extend beyond the 15th (didactic) or 21st (clinical) consecutive day will require an official leave of absence.

Faculty members for each of the courses affected by the extended absence will be required to provide input on what coursework will be missed and the plan for completion of the missed work including the deadline. Students must be counseled on Financial Aid considerations and possible implications if the extended absence converts to a leave of absence.

Des Moines University reserves the right to impose an involuntary leave of absence if the approved timeframe has to be extended and the student does not petition for a voluntary leave of absence.

Voluntary Leave of Absence

For students who anticipate being unable to participate in all course requirements or activities for a period of time beyond 15 days (didactic) and 21 days (clinical), the D.P.M., PA, and D.P.T. student must petition for a Voluntary Leave of Absence.

A voluntary leave of absence may be requested for medical (physical or mental), including maternity, personal, scholarly pursuit (dual degrees, research opportunities, etc.), military deployment (refer to the Student Military Deployment) or other which must be specified. When requesting a medical leave, a student must include documentation from their healthcare provider identifying the condition and anticipated time needed for the leave of absence.

Leaves of absence can be granted for up to 1 year.

Approval of leaves is subject to individual College policies. For example, CPMS requires a student be in good academic standing in order to go on a voluntary leave of absence. In CHS, a single leave will not exceed 12 months, and consecutive or multiple leaves of absence will not exceed a cumulative total of 18 months. Students must receive Financial Aid counseling and complete the online exit interview.

Students taking a leave of absence for medical reasons must provide a medical release prior to their return. In order to return from the leave of absence, the student must notify their specific program of their intent to return in writing at least 60 days prior to their return.

If the student goes on leave which results in a financial balance, all financial obligations to the University must be satisfied prior to their return.

Involuntary Leave of Absence

An Involuntary Leave of Absence is indicated for students who:

- Cannot progress in their curriculum due to established academic policies (i.e. failure to pass Boards or courses required for progression),*
- Are facing disciplinary action for violating the Professional Integrity Code or other school policies,*
- Are experiencing personal or medical circumstances but refuse to petition for a voluntary leave of absence and their program

and/or College's administration believes it is in their best interest to go on leave,
- Have been determined to be a potential threat to themselves or others

**An involuntary leave for this purpose will be counted towards the maximum time allowed for completion of the degree. Voluntary leaves of absence and involuntary leaves not included in this category will not be counted towards the maximum time allowed for completion of the degree.*

In order for students to return from an involuntary leave of absence, they must provide documentation that the circumstances necessitating the involuntary leave of absence have been satisfactorily addressed and/or remedied, and they are clear to return. In the notification letter from the Dean or their designee, they will be advised of the documentation and the required source of that documentation to satisfy University requirements to return.

For students placed on leave of absence for disciplinary reasons, the results of the adjudication process dictate when and if the student is allowed to return.

The Process – Extended Absence Contract & Voluntary Leave of Absence

- It is expected that the student will first discuss with the Dean or Associate Dean of their respective program/college prior to initiating the process. After the initial conversation with the student to assess their need, the Dean's designee will counsel them on the differences and implications between an Extended Absence Contract and Voluntary Leave of Absence.
    - Difference and Implications
        - Reporting enrollment status to the National Clearinghouse – which provides lenders with information to determine when the repayment period begins.
        - Leaves of absence may count against their loan repayment grace period.
        - Curricular and academic progression, potential change to anticipated graduation date.
    - The process to submit a petition for an Extended Absence Contract is a paper process. Please consult with your respective Dean's Office to obtain the necessary paperwork
    - The petition for a Voluntary Leave of Absence is an electronic process through Pulse. The Student must initiate the process through a form located on the Registrar's Office page. The form will be automatically routed to the appropriate Program Director/Dean's Office
        - Upon receipt of the written petition, the Dean's designee will initiate the proper paperwork workflow in Pulse with their electronic signature approving the request. The Dean's designee will also advise the student that the entire process must be concluded within three (3) business days of the Dean's designee's signature in order for it to be considered official and in effect.

Additional information can be reviewed in the Student Handbook.

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 University affirms its respect for students, faculty and staff to observe major religious holidays. Where scheduling conflicts prove unavoidable, no student will be penalized for absence due to religious reasons and alternative means will be sought for satisfying the academic requisites involved. If a suitable solution cannot be reached by the student and the instructor, students and instructors should consult the appropriate Dean and/or utilize the existing appeal mechanisms. Students are also invited to contact the Office of Student Affairs for additional assistance.

University or Academic Program Withdrawal

Application for voluntary withdrawal from the University or program must be submitted in writing to the appropriate 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.

Admissions

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.

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 Master of Public Health (M.P.H.) program. To be considered for any other program of study at DMU, applicants must be either a U.S. Citizen or U.S. legal permanent resident.

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, Master of Health Care Administration, Master of Science in Biomedical Science or Master of Science in Anatomy. Students enrolling in the physical therapy or physician assistant 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:

- Accepted students must submit official final transcripts from all colleges attended post-high school by the deadline of two weeks (14 days) prior to the first day of classes. Students who are accepted to DMU less than one month prior to the first day of classes will have 30 calendar days from the date of their acceptance to submit all official transcripts to the Office of Admissions. Any special circumstances or requests for exceptions to this policy must be sent to and approved by the Dean of the applicable college. Students who fail to submit all official final transcripts by the stated deadline may jeopardize their acceptance or continued enrollment in the College.
- 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
- Complete all conditions of enrollment, which may include but is not limited to: submission of official and final transcripts, completion of a bachelor's degree from a regionally accredited college or university, completion of prerequisite coursework, submission of standardized test scores, completion of shadowing or experience hours, and submission of letters of recommendation.
- Submit acknowledgment of the Technical Standards for Admission, Academic Promotion, and Graduation.
- Complete a criminal background check, which may include a drug screen, through the DMU preferred vendor. Results must be released to DMU prior to matriculation, and the cost of this process will be paid by the student. Students are

required to disclose all past or present charges, convictions, dismissals, deferred judgments and expunged records as related to a misdemeanor or felony. They are also obligated to disclose any additional charges and convictions which occur following completion of the initial criminal background check. Admission to the program may be revoked if misrepresentations or omissions from the application are noted in the background check. DMU students are required to complete annual criminal background checks, which may include drug screening, while enrolled at DMU.

Students accepted for admission to the D.O., M.S.A., M.S.B.S., D.P.M., PA and D.P.T. 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 Requirements 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

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

D.O. students in the Extended Pathways to Success program are billed a total of four years tuition and any repeat course fees for the five years scheduled to complete the program.

- Students entering the program during year 1 of the curriculum are billed half of the current tuition rate in effect for each of the two years taken to complete year 1 of the curriculum. Tuition for years 2, 3, and 4 of the curriculum are billed at the regular tuition rate in effect for each academic year.
- Students entering the program during year 2 of the curriculum are billed half of the current tuition rate in effect for each of the two years taken to complete year 2 of the curriculum. Tuition for years 1, 3, and 4 of the curriculum are billed at the regular tuition rate in effect for each academic year
- If applicable, repeat course fees are billed at the rate in effect for the academic year and may cause adjustments to the tuition billing schedule described above.

Extended Pathways to Success is an extended medical school curriculum. A student may experience a period of less than full-time enrollment in the curriculum.

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 student laptop 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. SAP evaluation is program specific. For example, a dual degree student enrolled in both the DO and MPH programs will have SAP evaluated separately for each program and related coursework.

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.

Published Length	150% limit
M.H.A.: Prior Fall 2012: 45.0 credit hours	68.0 credit hours
Effective Fall 2012: 48.0 credit hours	72.0 credit hours
M.P.H.: Prior to Fall 2016: 45.0 credit hours	68.0 credit hours
Effective Fall 2016: 46.0 credit hours	69.0 credit hours
M.S.A.: 40.5 credit hours	61.0 credit hours
M.S.B.S.: Prior to Fall 2015: 49.0/49.5 credit hours	74.0 credit hours
Effective Fall 2015: 50.0 credit hours	75.0 credit hours

Effective Fall 2016: 47.0 credit hours	71.0 credit hours

Note that all attempted credits, including transfer credits and repeated coursework count toward the overall 150% time frame for completion.

Pace: 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). Transfer credits, if allowed by the program, are counted as attempted and earned credits in the evaluation of pace completion percentage and towards the 150% maximum timeframe for completion. Transfer credits include both external transfer credits and institutional transfer credits in the case of dual degree students. 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 (D.O., D.P.M., PA and D.P.T.) 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 (M.H.A., M.P.H., PPDPT, M.S.A. and M.S.B.S.) 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, takes a leave of absence or ceases attendance before completion of the term 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 Loan, 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 (term). 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 D.O., D.P.M., PA or D.P.T. program leaves before completing 60% of the payment period (term) 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 (term), the student will not receive a refund. This method will apply regardless of whether the student is a financial aid recipient or not.

If a student in the M.S.A., M.S.B.S., M.H.A., M.P.H. or PPDPT program leaves after the drop date, the student will not receive a refund. Students that withdraw or do not complete all courses and have received Title IV financial aid will be subject to Federal 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

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:

- Federal Direct Unsubsidized loan
- Federal Perkins loan
- Federal Direct Grad PLUS loan
- State, private or University aid
- Student, if funds remain after paying the above.

Example 1: Return of Funds Required

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 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 loan
- Amount retained by DMU $6,494.00

Example 2: No Return of Funds Required
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 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

- 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.)
- 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.
- 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.
- 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.
- Master of Public Health, Master of Health Care Administration and Post-Professional Doctor of Physical Therapy programs have separate policies that cover dropping courses 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.
- A student must be at least half-time to qualify for financial aid. If a student drops a course 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 (M.H.A., M.P.H., 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 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 Federal Direct Unsubsidized loan.
- Super Primary Care loan: Loan proceeds are used to pay back prior loans borrowed while at Des Moines University.
- Federal Perkins loan: Same as Federal Direct Unsubsidized loan.

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 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 courses 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 excellence within Des Moines University's academic community through innovation and collaboration which enhances instruction, student learning, and assessment.

This is accomplished through consulting on a variety of educational topics, providing and utilizing resources, and working with other campus departments to serve needs in various areas, including educational technology, assessment, digital accessibility and teaching and learning approaches.

CTL assists DMU students with a broad range of services and programs designed to help students achieve their academic and personal goals in becoming highly competent and compassionate health professionals. 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. Student participants engage to meet peers, learn more about a professional organization, voice an opinion or volunteer in the community. Student clubs and organizations offer the ability to attend national conventions, advocate for a cause and more. All clubs and organizations are free to join although some may have a mandatory national or chapter fee. Several welcome all students and some are limited to students from a certain program. All clubs and organizations have students in a leadership role with a designated faculty advisor as support. The Office of Student Affairs provides annual training to ensure policies and procedures that govern clubs and organizations are understood and consistently applied.

Continuing Medical Education (CME)

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.

Employment

Full-time students enrolled in a clinical program are strongly encouraged to not 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 a 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.

ITS 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 (ITS) maintains computer accounts for all enrolled students. All clinical students are assigned a laptop to use while they are enrolled full-time. The account allows access to the assigned laptop computers (as applicable), DMU Student Pulse, their university e-mail account and Desire2Learn (D2L).

DMU Student Pulse contains general university and program specific announcements, links to valuable Library Resources, schedule information and additional links useful to students' education at DMU.

Each student is assigned an e-mail account. This account is accessible through their DMU computer (as applicable), 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 support forwarding of e-mail to other accounts.

D2L is the learning management system to which instructors post supplemental course information, quizzes, grades and other helpful course information. D2L is generally available for student and instructor access 24 hours a day/7days a week.

Library

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 and/or by going to the Library's Lib Guides page.

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 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 available from the Security Office and is provided on Pulse.

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. The toll-free number is 1-877-351-7889; email is AskSAP@aetna.com. When utilizing this service, visit www.AetnaSAP.com and enter the school ID of DMUSAP.

Student Counseling Center

The Des Moines University Student Counseling Center (SCC) provides free counseling and mental health services to enrolled students for a wide variety of concerns, including (but not limited to) stress management, adjustment, anxiety, depression and grief/loss. Partners of students may also participate in joint relationship counseling sessions. The SCC operates according to the legal and ethical mandates of mental health care. Therefore, all information is confidential, and the SCC's records are not a part of any academic or university

records. Additional information regarding the SCC's services is available on their 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. Each SGA is allocated money for their budget 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 enrolled students. 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.

Student Health Insurance

DMU requires that students in all clinical programs, including M.S.A. and M.S.B.S., provide proof of health insurance coverage. This requirement ensures 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; 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; a Wellness Resource Library and much more! Additional information is available on the center's website.

Addendum

November 16, 2016 — The following Master of Science in Physician Assistant Studies courses were modified as follows:

MSPA 1394 Introduction to Clinical Medicine (ICM) III: This is the third course in the ICM series covering the pathology, 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~~ pediatric 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 1398 Introduction to Clinical Medicine (ICM) IV: This is the final course in the ICM series covering the pathology, 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~~ neurology, emergency medicine and geriatrics. (6.5 credit hours) *Prerequisites: MSPA 1394, MSPA 1382, MSPA 1395*