6.5 Course Descriptions

Programmatic Level Educational Outcome Objectives

CUSOM has adopted the 2012 American Association of Colleges of Osteopathic Medicine (AACOM) Osteopathic Core Competencies for Medical Students as the programmatic level educational outcome objectives for graduates, since these also align with the mission of the university and medical school.

These Osteopathic Core Competencies measure specific objectives along the following 14 competency domains:

1. Osteopathic Principles and Practices
2. Medical Knowledge
3. Patient Care
4. Interpersonal and Communication Skills
5. Professionalism
6. Practice-Based Learning and Improvement
7. Systems-Based Practice
8. Counseling for Health Promotion/Disease Prevention
9. Cultural Competencies
10. Evaluation of Health Sciences Literature
11. Environmental and Occupational Medicine (OEM)
12. Public Health Systems
13. Global Health
14. Interprofessional Collaboration

The curriculum in Blocks 1 and 2 of the first year introduces students to the foundational biomedical concepts of Cell and Molecular Biology, Genetics, Biochemistry, Gross Anatomy, Embryology, Histology, Immunology, Microbiology, Pathology, Pharmacology and Physiology. Coursework also consists of introductory clinical training in osteopathic principles and practice in addition to basic clinical skills. Concepts necessary for modern medical practice and professionalism are integrated throughout the courses. Beginning in Block 1, students participate in bi-weekly clinical case conferences designed to integrate material presented in previous lectures and labs.

Specific Course Overviews, Year 1, Semester 1, Blocks 1 And 2

OMED 500: Osteopathic Manipulative Medicine and Lab – 1.0 Credits

The initial course in Osteopathic Manipulative Medicine introduces the medical student to the principles, practice, and fundamental tenets of osteopathic medicine. Basic osteopathic medical terminology and biomechanical principles are defined including: five models of osteopathic care, tissue texture changes, implications of structural asymmetry, ranges of motion, motion barriers, planes of motion, spinal mechanics, and somatic dysfunction. Students learn to perform and interpret the osteopathic structural exam in order to scan,
screen, and diagnose for somatic dysfunction in the cervical, thoracic, lumbar, upper extremity, and lower extremity regions. Fundamental principles and basic techniques of muscle energy and soft tissue methods of OMT are introduced. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 501: Clinical Skills and Lab – 1.0 Credits

The Clinical Skills course is presented longitudinally over the first two years and prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, patient education and counseling. The Block 1 course focuses on professionalism, patient-centered interviewing techniques, and the essential content and structure of a medical history and its documentation. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 502: Foundations of Medical Practice – 0.5 Credits

This course provides a broad overview of evidenced-based medicine, biostatistics, epidemiology, research methodology, and experimental design. Students learn and apply calculations and strategies required to appropriately locate, interpret, and design a research paper. The goal of this course is to provide students with the requisite knowledge to understand the concepts of evidence-based medicine, identify the quality of the evidence, and apply these principles to active medical practice.

The longitudinal Pass/Fail course, spanning all eight blocks of the students pre-clinical training, will introduce the foundations of evidence-based medicine to prepare for transition to their residency training environment including critical appraisal of current medical literature, develop a evidenced based approach to patient care and interaction, become proficient in the presentation of research in multiple formats, understand the process of medical research and its importance in their medical practice and produce a deliverable scholarly project at the culmination.
OMED 502 Foundations of Medical Practice introduces the student to an overview of research and scholarly work. The research process, ethics, and different types of research and scholarly work are also discussed.

The FMP Scholarly Project Requirement is introduced and discussed in detail to provide a staged timeline to allow the students ample time to complete their scholarly project in Block 8. The different types of studies discussed in this Block will provide the student some means of meeting the FMP Scholarly requirement.

OMED 503: Professional Core Competencies – 0.5 Credits

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course, and its content, is designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. However, before being able to effectively care for patients, it is important for students to understand themselves, including important aspects of their personalities, implicit biases and how they best communicate with others to have optimal interaction with their patients, peers and colleagues. In Block 1, using lecture discussion, self-directed learning modules, case-discussion and group exercises, students will begin this journey and learn to apply concepts relevant to a professional life in medicine.

OMED 504: Osteopathic Manipulative Medicine and Lab – 1.5 Credits

This course in Osteopathic Manipulative Medicine builds on prior cognitive and psychomotor skills acquired in OMED 500 to refine and advance OMM diagnosis and treatment abilities. Topics covered include: osteopathic considerations of the thoracic cage, osteopathic reflexes and autonomics, OMM documentation, osteopathic considerations of the lymphatic system, and Chapman’s reflexes. Key material from OMED 500 is reviewed. Principles and basic techniques of counterstrain, visceral, and lymphatic treatment methods are introduced. Additional soft tissue, counterstrain, and muscle energy treatments of the cervical, thoracic, lumbar, and rib regions are included in the laboratory sessions. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.
**OMED 505: Clinical Skills and Lab – 1.0 Credits**

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum will prepare students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, formulating a differential diagnosis, laboratory interpretation, medical documentation and reporting, and patient education and counseling. Block 2 focuses on the complete head-to-toe physical exam and its documentation. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

**OMED 506: Foundations of Medical Practice – 0.5 Credits**

OMED 506 Foundations of Medical Practice course focuses on important biostatistics principles required to interpret and apply epidemiological and evidence-based data. The FMP Scholarly Project timeline will include generation of project ideas/research questions.

**OMED 507: Professional Core Competencies – 0.5 Credits**

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course, and its content, is designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. The Block 2 PCC course will focus on essential aspects of the professional and ethical expectations of a physician. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students learn and apply concepts relevant to a professional life in medicine.

**OMED 511: Cell Biology/Biochemistry – 3.0 Credits**

This course includes an integrative overview of biochemical pathways, structure and function of cellular components, and human genetics. The goal of this course is to enable students acquire foundational knowledge on core concepts of biochemistry, cell biology and molecular genetics that apply to human health and diseases. These basics will facilitate learning of disease processes and diagnostics and treatment decisions in system courses. Students will also be able to analyze and evaluate the most common biochemistry cited in medical literature.
OMED 522: Pharmacology – 0.5 Credits

The primary objective of this course is to provide the student with the fundamental information and general principles underlying the mechanisms and actions of pharmaceutical agents and their role in health and disease. The course is an introductory course, whose content will be built upon in the successive blocks and systems curriculum. This course provides a broad overview of pharmaceutical agents, with integrated clinical applications to aid students in understanding the critical role these agents play in maintaining health in the various systems of the human body.

OMED 524: Microbiology/Immunology – 2.5 Credits

Structured as an integrated course for the foundational study of medical microbiology and immunology, this course opens with the microbiome concept, followed by microbial nomenclature, classification, structure, metabolism, replication, and pathogenesis. Principles of infectious diseases, infection control, diagnostic microbiology, and antimicrobial management are also discussed. The immunology portion of the course provides core, foundational information and general principles underlying the human immune system and its role in health and disease. A broad overview of the human immune system, immune components, disease processes, immune manipulation, and immunologic techniques are discussed. Major groups of medically important, common microorganisms are then introduced, according to their clinical significance in upper respiratory tract and gastrointestinal tract infections. In addition, infectious etiologies with high global impact, such as human immunodeficiency virus and mycobacteria are emphasized, and the discussion of their infections offers an integrated application opportunity of microbiology and immunology. Upon completing this course, the students will have a solid foundation of medical microbiology, immunology, and infectious and immunological diseases, which will be further expanded in the successive blocks and system-based courses by a well-designed spiral curricular integration.

OMED 530: Anatomy and Lab - 1.5 Credits

The first-year anatomy curriculum at CUSOM employs an interdisciplinary and system-based approach to teaching. The aim of this course is to provide the CUSOM student with a firm foundation of the structure of the skeletal system, introduce medical imaging and ultrasound technology, and provide foundational material for the study of histology and embryology. Teaching methods include cadaver dissection labs, assigned reading, and clinical correlations with diagnostic imaging. This knowledge will enable the physician to appropriately evaluate the patient’s health and diagnose disease based on presenting signs and symptoms. The anatomical terminology taught throughout the course is the vocabulary for medical education. Any device capable of capturing still or video images or audio recordings, including cell
OMED 540: Physiology – 2.5 Credits

During this course, physiologic and pathophysiologic terminology and concepts are introduced, and clinically relevant examples are presented. Fundamental knowledge of the homeostatic functions of the autonomic nervous system, regulation of intercellular (electrical) conduction by cell membranes, and the maintenance of the body fluids is provided. This course also introduces the normal physiology of the cardiovascular, respiratory, renal, gastrointestinal, endocrine, reproductive and neural systems. First-year students are provided a solid foundation of normal physiology and principles that will be built upon in the subsequent systems courses and clinical applications.

OMED 551: Pathology – 1.5 Credits

Pathology is the study of disease. More specifically, pathology is the study of disease initiation, progression, and outcome (i.e. the pathogenesis) via the identification of structural, biochemical, and functional changes in cells, tissues, and organs. This course discusses the basic mechanisms of disease including injury, inflammation, and tumorigenesis. Special topics in pathology such as nutritional pathology, environmental and toxicological pathology, laboratory medicine and forensic pathology are presented. The course consists of didactic lectures, independent study, and case-based modalities. Principles learned in the course will be applied in concurrent and subsequent courses in the CUSOM curriculum.

OMED 560: Anatomy and Lab – 3.0 Credits

The first-year anatomy curriculum at CUSOM employs an interdisciplinary and system-based approach to teaching. Materials presented in this block of study (Block 2) include the gross anatomy, histology and embryology of the human thorax, abdomen and superficial perineum, with clinical correlations to illustrate application of principal concepts specific to osteopathic medicine. The primary objective of this course is to teach students the principles and concepts of the distinct components of anatomy as they pertain to clinical medicine. Teaching methods include cadaver dissection labs, independent study/self-study, assigned reading, and clinical correlations with diagnostic imaging. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.
Specific Course Overviews, Year 1, Semester 2, Blocks 3 And 4

**OMED 508: Osteopathic Manipulative Medicine and Lab – 1.5 Credits**

This course in Osteopathic Manipulative Medicine builds on prior cognitive and psychomotor skills acquired in OMED 500 and OMED 504 to refine and advance OMM diagnosis and treatment abilities. Students receive further instruction in osteopathic considerations, diagnosis, and treatment of the upper extremity, lower extremity, pelvis, and sacrum. Integration with the general clinical examination and treatment applications are emphasized during each session. Key material from OMED 500 and OMED 504 is reviewed. Additional Soft Tissue, Counterstrain, Articular, Muscle Energy, Lymphatic, and Chapman Point treatments are included in the laboratory sessions. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

**OMED 509: Clinical Skills and Lab – 1.0 Credits**

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 3 focuses on the musculoskeletal system. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

**OMED 513: Foundations of Medical Practice – 0.5 Credits**

OMED 513 Foundations of Medical Practice will focus the students’ ability to learn and apply calculations and strategies required to appropriately locate, interpret, and design a research paper. The goal of this course is to provide students with the requisite knowledge to understand the concepts of evidence-based medicine, identify the quality of the evidence, and apply these principles to active medical practice. OMED 513 focuses on the critical foundational knowledge of epidemiology and population health.

The FMP Scholarly Project format will be discussed with formation of working teams will be proposed at the conclusion of this block.
OMED 514: Professional Core Competencies – 0.5 Credits

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course, and its content, is designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students learn and apply concepts relevant to a professional life in medicine. During Block 3, students will focus on health care delivery in the United States including topics such as health care financing and regulations, medical trends in US health care and patient centered care.

OMED 515: Osteopathic Manipulative Medicine and Lab – 1.5 Credits

This course in Osteopathic Manipulative Medicine builds on prior cognitive and psychomotor skills acquired in OMED 500, OMED 504, and OMED 508 to refine and advance OMM diagnosis and treatment abilities. Students receive an introduction to the osteopathic considerations, diagnosis, and treatment with HVLA and cranial techniques. Students are introduced to case based learning involving low back pain and postural imbalances in preparation for the second year OMM curriculum placing an emphasis on systems based clinical application. Key material from OMED 500, OMED 504, and OMED 508 is reviewed. Additional Soft Tissue, Counterstrain, Articular, Muscle Energy, Lymphatic, and Chapman Point treatments are included in the laboratory sessions. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 516: Clinical Skills and Lab – 1.0 Credits

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 4 focuses on the neurosensory and psychiatric systems. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.
OMED 517: Foundations of Medical Practice – 0.5 Credits

OMED 517 Foundations of Medical Practice will focus on research process, ethics, and different types of research and scholarly work. The different types of studies and their related strength of evidence will be discussed in this block to provide students a means of meeting the FMP Scholarly requirement discussed in Block 1.

The FMP Scholarly Project timeline will require final definition of their project/clinical question and their team with submission of their proposal for approval.

OMED 518: Professional Core Competencies – 0.5 Credits

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course, and its content, is designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students learn and apply concepts relevant to a professional life in medicine. Topics emphasized in Block 4 include end-of-life care, including hospice and palliative care, dealing with bad news, and spirituality in medicine.

OMED 570: Musculoskeletal System – 4.0 Credits

The aim of this course is to provide the student with a comprehensive review of the structure, function, and pathophysiology of the musculoskeletal system. This course emphasizes the integration of basic science concepts with clinical correlations in the diagnosis of musculoskeletal disorders. The course will also introduce medical terminology specific to the musculoskeletal system. Included in this course is an overview of antibiotics and anticancer drugs that will also be a foundation for further organ system studies. The expected outcome of the successful completion of this course is the ability to apply specific knowledge of the musculoskeletal system to the diagnosis and treatment of patients.

OMED 579: Neuroscience – 4.5 Credits

This course is intended to provide first year CUSOM students with an integrated approach to the structure, function and dysfunction of the human nervous system. Basic principles of the anatomy, histology, embryology, physiology, pathology and imaging of the nervous system will be presented in a clinically-relevant context. Upon completion of the course students will be able to recognize common neurological diseases and their underlying causes, and diagnose neurological diseases from the presenting signs and symptoms.
OMED 583: Psychiatry – 1.5 Credits

This course will review clinically relevant topics in psychiatry required to evaluate and treat mental illness using a biopsychosocial model of care. Psychiatric issues seen in primary care settings will be emphasized along with knowledge application to enable the student to appropriately evaluate a patient’s mental health, to diagnose disease from the presenting signs and symptoms, and to formulate and appropriate treatment plan.

OMED 590: Anatomy and Lab – 4.0 Credits

Anatomy in Block 3 consists of the study of the upper and lower extremities, and the pelvis and perineum. Teaching methods include cadaver dissection labs, independent study, assigned reading, and clinical correlations with diagnostic imaging. This knowledge will enable the physician to appropriately evaluate the patient’s health, as well as in diagnosis of disease, based on presenting signs and symptoms. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 594: Anatomy and Lab – 3.0 Credits

Anatomy in this block (Block 4) will provide the CUSOM student with a firm foundation of the structure of the brain, brainstem and the head and neck, with an emphasis on cranial nerve function and distribution. Teaching methods include cadaver dissection labs, independent study, assigned reading, and clinical correlations with diagnostic imaging. This knowledge will enable the physician to appropriately evaluate the patient’s health, as well as in diagnosis of disease, based on presenting signs and symptoms. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

Specific Course Overviews, Year 2, Semester 3, Blocks 5 And 6

The second year of instruction at CUSOM begins with a continuation of the systems format introduced in the first year and concludes with an integrated transition into the clinical years. Content in the second year is delivered in Blocks 5 through 8. Students will continue to participate in regular clinical case conferences designed to incorporate increasingly complex clinical case material from previous basic science and clinical material. Block 8 includes special content relevant to COMLEX-USA Level 1 passage and entry into the clinical rotations of years three and four.
OMED 600: Osteopathic Manipulation Medicine and Lab – 1.5 Credits

This course in Osteopathic Manipulative Medicine will incorporate and advance osteopathic principles presented in the previous blocks. Students will be introduced to a systems based approach to osteopathic diagnosis and treatment. Integrating viscerosomatic reflexes, evaluation of lymphatic structures, Chapman points, biomedical knowledge, and osteopathic principles, students will develop an osteopathic treatment strategy for medical conditions commonly encountered in the respiratory and cardiovascular systems. Students will be instructed in balanced ligamentous tension as the exemplar treatment style for this system. Additionally, muscle energy treatment will be the primary technique reviewed to assist the students in maintaining their competence in this form of manipulation. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 601: Clinical Skills and Lab – 2.0 Credits

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 5 focuses on the cardiovascular and pulmonary systems. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 602: Foundations of Medical Practice – 0.5 Credits

OMED 602 Foundations of Medical Practice will continue and review and extend the OMED 517 research design and its importance in clinical research studies, the process of assessing a research method’s quality and the critical underpinnings of several landmark studies. This will also include introduction to critical appraisal and basics of presenting and discussing current medical literature.

The FMP Scholarly Project timeline will be reviewed and reinforced to provide the students with ample time for successful completion. The final opportunity for adjustment or alteration of project definition and team composition.
OMED 603: Professional Core Competencies – 0.5 Credits

Professional Core Competencies is taught as a continuous didactic course throughout the first and second years, incorporating student-directed learning which may be done both individually and in teams. Block 5 focuses on topics such as communication, medical jurisprudence and professionalism. This course consists of didactic lectures, independent study, and clinical case exercises to enhance the comprehension process. Group activities are utilized to explore issues related to medical humanities. In order to optimize time spent in class, students are expected to be familiar with lecture topic material and assignments posted on Blackboard and complete any pertinent assignments before coming to class.

OMED 604: Osteopathic Manipulation Medicine and Lab – 1.0 Credits

This course in Osteopathic Manipulative Medicine will continue to incorporate and advance osteopathic principles presented in the previous blocks. Students will continue their studies using a systems based approach to osteopathic diagnosis and treatment. Integrating viscerosomatic reflexes, evaluation of lymphatic structures, Chapman points, biomedical knowledge, and osteopathic principles, students will develop an osteopathic treatment strategy for medical conditions commonly encountered in the genitourinary and lymphatic systems. Students will be instructed in facilitated positional release as the exemplar treatment style for this system. Additionally, counterstrain will be the primary technique reviewed to assist the students in maintaining their competence in this form of manipulation. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 605: Clinical Skills and Lab – 2.0 Credits

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 6 focuses on the dermatologic, hematologic, lymphatic, and renal systems. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.
OMED 606: Foundations of Medical Practice – 0.5 Credits
OMED 606 Foundations of Medical Practice focus on the implementation and integration of evidence-based medicine into daily clinical practice. Formal discussion of the approach to critical appraisal medical literature will be presented as well as the presentation of landmark studies in journal club format.

The FMP Scholarly Project timeline will be reviewed and each project team will be required to provide a progress report in order to ensure successful completion.

OMED 607: Professional Core Competencies – 0.5 Credits
Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. While teaching the art of medicine along with the science of medicine is challenging, this course and its content are designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students are introduced and continuously exposed to concepts relevant to a professional life in medicine. The Block 6 PCC course focuses on patient safety, medical errors and methods of system improvement in both areas.

OMED 610: Cardiovascular System – 4.0 Credits
This course provides a comprehensive overview of the cardiovascular system including the normal physiology and pathophysiology of important disease states. Radiographic evaluation, electrocardiogram interpretation, electrolyte and fluid balance, neoplasia, infection, and medications related to the cardiovascular system are also covered. The goal of this course is to enable students to develop a clear understanding of both normal and abnormal cardiovascular function along with the differential diagnoses and treatment options of common cardiovascular disease processes.

OMED 611: Clinical Applications of Biomedical Sciences I – 2.0 Credits
The transition from the first year to the second year of medical instruction shifts from a more classroom and lecture/discussion focus, to that of a more clinical focus as seen during clinical rotations. Combined with this is preparation for National Boards, COMLEX-USA Level 1 and, for some students, USMLE Step I as well. The Clinical Application of Biomedical Sciences I course is the first of a two-part course offered as a capstone for entry into the third and fourth years of the curriculum.
This course is delivered through self-directed learning and group review/study with assessments provided to highlight key points from specific organ systems and across the continuum of health. The course is designed to integrate and consolidate the content from the first year with the increasing clinical content in the second year while also preparing the student with knowledge and skills required for success during the third and fourth years.

The overall goal of this course is for students to describe, discuss, and integrate the comprehensive assessment/examination of patients with a variety of potential disease processes, both common and uncommon, with the differential diagnosis, pathogenesis, and treatment of those processes.

**OMED 620: Respiratory System – 2.5 Credits**

This course provides a comprehensive overview of the pulmonary system including the normal physiology and pathophysiology of disease states. Radiographic evaluation, electrolyte and fluid balance, neoplasia, infection, and medications related to the pulmonary system are also covered. The goal of this course is to enable students to develop a clear understanding of both normal and abnormal pulmonary function along with the differential diagnoses and treatment options of common pulmonary disease processes.

**OMED 631: Hematology – 3.0 Credits**

The Hematology course presents the normal structure and function of the hematopoietic system, the pathophysiology of its disease states and finally, the clinical presentation, pathophysiology, and an approach to the diagnosis and management of hematologic diseases. The course begins with an overview of commonly encountered hematologic disorders. The course is then divided into three parts: the coagulation unit, the red blood cell unit and the white blood cell unit.

The coagulation unit first presents the normal structure and function of the coagulation system, including the laboratory evaluation of coagulation. Next, the unit presents the pathophysiology, genetics, epidemiology and clinical presentation of bleeding disorders and thrombotic disorders.

The red blood cell unit presents the normal structure and function of red blood cells, including their morphology and biochemistry. Next, the unit reviews the common disorders causing polycythemia as well as microcytic, macrocytic and normocytic anemia. The red blood cell unit also covers transfusion medicine, including the processing of blood products used in clinical practice and the recognition and management of transfusion reactions.

Finally, the white blood cell unit begins with the normal structure and function of white blood cells. Next, the unit covers the normal structure and function of the lymphatic system and an overview of commonly encountered non-
malignant disorders presenting with clinically palpable lymphadenopathy. The unit continues with an overview of lymphomas, leukemias and plasma cell disorders.

Each unit concludes with clinical case based-application lectures illustrating commonly encountered hematologic disorders and an approach to their diagnosis and management. Integrated throughout the course are special topics in hematology including immunology, pharmacology, pregnancy-related issues in hematology, infectious disease and oncology. To effectively integrate hematology basic science with the clinical evaluation and management of hematologic disorders, the Hematology course includes our own CUSOM faculty as well as guest lecturers who are clinicians from academic and private practice.

**OMED 640: Renal System – 2.5 Credits**

This course provides a comprehensive overview of the renal system including the normal physiology, pathology, and pathophysiology of common renal and urologic disease states. Radiographic evaluation, electrolyte and fluid balance, neoplasia, infection, and medications related to the renal and urologic system are also covered. The goal of this course is to enable students to develop an understanding of both normal and abnormal renal and urologic function along with the differential diagnoses and treatment options for common renal and urologic disease processes.

**OMED 651: Dermatology – 1.0 Credits**

This course provides a comprehensive overview of dermatology the normal physiology and pathophysiology of common dermatologic related disease states. Imaging and diagnostic evaluation, neoplasia, infection, and medications related to the skin are also covered.

The goal of this course is to enable students to develop an understanding of both normal and abnormal dermatologic function along with the differential diagnoses and treatment options of common dermatologic related disease processes and diseases that include skin manifestations.

**Specific Course Overviews, Year 2, Semester 4, Blocks 7 And 8**

**OMED 608: Osteopathic Manipulative Medicine and Lab – 1.5 Credits**

This course in Osteopathic Manipulative Medicine will continue to incorporate and advance osteopathic principles presented in the previous blocks. Students will continue their studies using a systems based approach to osteopathic diagnosis and treatment. Integrating viscerosomatic reflexes, evaluation of lymphatic structures, Chapman points, biomedical knowledge, and osteopathic principles, students will develop an osteopathic treatment strategy for medical
conditions commonly encountered in the gastrointestinal system. Students will be instructed in Still technique as the exemplar treatment style for this system. Additionally, high-velocity, low amplitude, balanced ligamentous tension and counterstrain will be the primary techniques reviewed to assist the students in maintaining their competence in this form of manipulation. High yield board content will be reviewed through lectures and labs. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

**OMED 609: Clinical Skills and Lab – 1.0 Credits**

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 7 focuses on examination of the endocrine and gastrointestinal systems, the pediatric well-child history and physical exam and the male genital exam. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

**OMED 613: Foundations of Medical Practice – 0.5 Credits**

This course provides a broad overview of evidenced-based medicine, epidemiology, research methodology, and experimental design. Students learn and apply calculations and strategies required to appropriately locate, interpret, and design a research paper. The goal of this course is to provide students with the requisite knowledge to understand the concepts of evidence-based medicine, identify the quality of the evidence, and apply these principles to active medical practice. The student will be exposed to the calculations and strategies required to locate, appropriately interpret, and design a research paper. The goal of this course is for students to grasp the concepts behind evidence-based medicine, identify the quality of the evidence, and apply these principles to active medical practice. Block 7 discusses quality improvement studies and additional landmark studies, this time with a focus on obesity and diabetes.
OMED 614: Professional Core Competencies – 0.5 Credits

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course and its content are designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students learn and apply concepts relevant to a professional life in medicine. Block 7 PCC will incorporate topics including population health, community health and occupational and environmental health. Additionally, there will be a small group discussion of the ethics of bedside rationing of health care.

OMED 615: Osteopathic Manipulative Medicine and Lab – 0.5 Credits

This course in Osteopathic Manipulative Medicine will continue to incorporate and advance osteopathic principles presented in the previous blocks. Students will be introduced to an osteopathic treatment strategy for obstetrical patients and children. High yield board review content will be provided through lectures and labs. Students will also be provided with opportunities to review and refine manipulative techniques previously presented within an integrated osteopathic physical examination. Students will demonstrate their ability to perform an integrated osteopathic physical examination and treatment at a level commensurate with a student entering into clinical rotations. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.

OMED 616: Clinical Skills and Lab – 0.5 Credits

The 2-year Clinical Skills course is presented longitudinally over the first two years and this continuum prepares students with the fundamental skills of patient assessment. Through the use of brief interactive lectures, small group discussion, hands-on practice, simulation, and standardized patient experiences, students develop appropriate professional behaviors and clinical skills such as patient-centered interviewing, physical examination, fundamental procedural skills, medical documentation and reporting, formulation of a differential diagnosis, laboratory interpretation, patient education and counseling. Block 8 focuses on the reproductive system, including the sexual history, and the female genital and breast examination, and the newborn history and physical examination. Any device capable of capturing still or video images or audio recordings, including cell phones, are not permitted in any laboratory (anatomy, clinical skills, OMM, Simulation), or in any clinical setting, including and not limited to OSCE, standardized patients, Early Clinical Experience, clinical rotations, and the student health clinic.
OMED 618: Foundations of Medical Practice – 0.5 Credits

This course provides a broad overview of evidenced-based medicine, epidemiology, research methodology, and experimental design. The student will be exposed to the calculations and strategies required to locate, appropriately interpret, and design a research paper. The goal of this course is for students to grasp the concepts behind evidence-based medicine, identify the quality of the evidence, and apply these principles to active medical practice. Block 8 is the culmination of the series. Four self-directed learning sessions focus on the definition and history of human subjects’ research and crucial ethical considerations. In addition, this Block also provides an opportunity for students to review Biostatistics and Epidemiology/Population Health concepts learned in earlier Blocks.

OMED 619: Professional Core Competencies – 0.5 Credits

Medical Professionalism and other professional competencies necessary for effective, compassionate, ethical and competent osteopathic medical practice are foundational to a career in medicine. This course and its content are designed to actively promote all aspects of a healthy professional life and ensure lifelong learning, while simultaneously exposing students to the basic concepts of biomedical ethics, medical law, professionalism, and the structure of health systems. Using lecture discussion, self-directed learning modules, case-discussion and group exercises, students learn and apply concepts relevant to a professional life in medicine. Block 8 PCC will focus various ethical issues including human sexuality, human trafficking, statutory rape, child abuse/neglect, domestic violence, sexual assault, and pregnancy choices.

OMED 670: Endocrine System – 2.5 Credits

This course offers an in-depth study of the endocrine system including structure and function of endocrine organs, regulatory mechanisms of hormones, etiology and pathogenesis of endocrine disorders, and the diagnosis and management of patients presenting with symptoms of hormone under- or overproduction. Topics addressed include short and tall stature, the diabetic patient, multiple endocrine neoplasia syndromes, and endocrine emergencies. The course consists of didactic lectures, independent study, and case-based modalities. Principles learned will be utilized and applied in concurrent and subsequent courses in the medical curriculum and throughout medical training and practice.

OMED 680: Gastrointestinal System – 3.5 Credits

This course provides a comprehensive overview of the gastrointestinal system including the normal anatomy, physiology and pathophysiology of common gastrointestinal disease states. Radiographic evaluation, neoplasia, infection, and medications related to the gastrointestinal system are also covered. The goal of this course is to enable students develop an understanding of normal
and abnormal digestive function along with the differential diagnoses and treatment options of common gastrointestinal disease processes.

**OMED 690: Clinical Applications of Biomedical Sciences II – 5.0 Credits**

The transition from the first two years of medical instruction that feature a more classroom and lecture/discussion focus, to the more clinical, hands-on focus utilized in the third and fourth years can be challenging for students. In an effort to ease this transition, to review key material necessary for clinical practice, and to integrate the key concepts and processes of the first two years instruction into future clinical practice, the Clinical Application of Biomedical Sciences II course is provided as a capstone for entry into the third and fourth years of the CUSOM curriculum.

This course is delivered as a mix of lecture/discussion review of material, case studies to highlight key points from specific organ systems and across the continuum of health, and group review/study. The course is likewise designed to integrate and consolidate the content from the first two years with requisite knowledge and skills of the third and fourth years. Completion of this course will prepare students for successful application and passage of COMLEX-USA Level 1, and entry into the third year.

**OMED 695: Reproductive System – 3.5 Credits**

The aim of this course is to provide the CUSOM student with a firm foundation of the structure, function, pathophysiology, pharmacology and clinical relevance of the reproductive system. The student will then be able to use this knowledge to provide thoughtful and competent care to the whole patient by integrating reproductive health needs.

**OMED 698: Modified Course of Study – 12.0 Credits**

A Modified Course of Study (MCOS) is a credit-bearing, individualized study plan for students who require an alternative educational pathway for reasons such as mandated board preparation, required remediation, illness, leaves of absence, or withdrawals. The Modified Course of Study will be individually designed based upon the student’s performance and needs by the respective Associate Dean and approved by the APPS Committee. Students on a Modified Course of Study must agree to and comply with the conditions and schedule of the Modified Course of Study. Students not following the individualized plan may be placed on Suspension (ineligible for financial aid and not considered an active student) at any time.
Rotation Descriptions / Third Year Rotations (MS-3)

Overview of Clinical Rotation Experiences

CUSOM students in years three and four are assigned to regional clinical training sites. Clinical rotations occur within hospitals, in ambulatory practices, and in geriatric acute care and long-term facilities. All students will spend time in rural, small, urban and critical access hospitals for a rural/underserved care clinical experience.

The clinical rotations are designed to provide the student with clinical education and experience in the general areas of internal medicine, surgery, pediatrics, obstetrics/gynecology, psychiatry, family medicine, emergency medicine, and geriatrics.

All clinical rotations are under the direct supervision of Campbell University School of Osteopathic Medicine (CUSOM). CUSOM maintains affiliation agreements with all its clinical training sites and will continue to engage hospitals, clinics and physicians to offer diverse training opportunities. Clinical rotations are organized to provide the greatest degree of educational exposure in a practical, clinical environment and the opportunity to develop expertise in the area of patient diagnosis and management.

The clinical rotations provided at each affiliated site, and the number of students assigned to each affiliated site from CUSOM, are determined by mutual agreement with CUSOM, the Associate Dean for Clinical Affairs, the Hospital Administrator(s), Regional Dean, Vice-president for Medical Education (VPME) / Director of Medical Education (DME), Clinical Faculty and the Office for Clinical Affairs.

Whenever possible, CUSOM uses hospitals with accredited postdoctoral programs approved by the Accreditation Council for Graduate Medical Education (ACGME) for postdoctoral training to provide assurance of adequate teaching material and faculty.

Rotation Descriptions / Third Year Rotations (MS-3)

OMED 795: Clinical Academic Assessment (CAA) – 10.0 Credits

Students will be exposed to a series of learning models that measure students' acquisition of knowledge and mastery of skills during clinical rotations. The formative assessment yields critical information for monitoring the students’ acquisition of knowledge and skills to prepare for standardized examinations. Such assessment will evaluate critical thinking, decision-making, and problem-solving skills seen on clinical rotations. Measures will include oral and computerized components, as well as demonstrations of clinical proficiency.
Students should be able to identify, analyze, synthesize, and apply knowledge and skills learned over time, on a cumulative basis during third year rotations. This block will allow the Office of Clinical Affairs to further identify individuals who may need special emphasis or remediation where warranted. This process allows students to achieve mastery of knowledge and clinical skills to prepare them for fourth year clinical rotations and residency.

**OMED 770: Simulation Medicine (SIM) - 10.0 Credits**

Through the use of CUSOM’s Simulation Center students will participate in a variety of hands-on activities in a safe learning environment that will help them transition into the clinical environment of patient care. Activities include including manikin-based simulation, Standardized Patient simulation, task trainer use, and detailed debriefing sessions. Students will learn many of the common clinical protocols, procedures, and techniques for providing patient care. During this rotation, students will obtain additional exposure to neuromusculoskeletal medicine by way of peer-to-peer interaction, facilitator-led instruction, mentoring, and teaching modules. Learning in the safe environment of simulation allows for self-reflection while ultimately helping to improve patient care, reduce medical errors, and increase patient safety.

Students will be prepared for entry into clinical rotations and through participation in a series of learning models that include, but are not limited to:

- Introduction to rotations and the hospital environment
- Academic aspects of clinical rotations
- Occupational Safety and Health Administration (OSHA)
- Health Insurance Portability and Accountability Act (HIPAA)
- Electronic health record, billing and coding
- Osteopathic documentation
- State-wide core orientation
- Entrustable Professional Activities (EPA)
- Prescription writing and risk evaluation mitigation strategies (REMS)
- Behavior and professionalism in the workplace

Students will be certified in OSHA and HIPAA training upon successful completion of this course.

**OMED 710 and OMED 712: Internal Medicine (IM) I and II – 10.0 Credits each**

The Internal Medicine rotations will expand the student’s knowledge and competencies in Internal Medicine by working in a team managing patients in both hospital and outpatient settings. Students will assist in the management of patients under the supervision of attending physician(s) and other members of the interdisciplinary healthcare team, including interns and residents. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.
OMED 714: Medical Selective (MS) - 10.0 Credits
The medical selective rotation is provided to enhance and improve students' knowledge and skills in medical subspecialty areas. Students will be able to expand their general Internal Medicine knowledge and apply it to specialty care. This rotation provides students to select a specialty based on their goals and interests to allow them to receive the maximum benefit from their experience and exposure to specialty care. Related ambulatory experiences will be integrated into this rotation as appropriate to enhance the students understanding of the specialty. The list of currently approved medical selectives is found elsewhere in this Bulletin and final approval by the Associate Dean for Clinical Affairs based on a number of factors, including but not limited to, availability, rotation schedules, and academic performance. The student is expected to participate in all patient care activities, teaching rounds, educational conferences and lectures.

OMED 720: Surgery (SUR) - 10.0 Credits
The Surgery rotation will provide students an opportunity to learn, recognize, and assist in the treatment of patients with surgical diseases, while also assisting in the patient's treatment and recovery. Students will learn basic surgical procedures, aseptic technique; correct handling of tissues and instruments to assist the surgical team in the pre- and post-operative care and recovery of the patient. Students will learn various surgical techniques and recognize potential risks associated with surgical care. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

OMED 730: Family Medicine (FM) - 10.0 Credits
The Family Medicine rotation will provide students with the opportunity to begin acquiring an understanding of the unique role of the osteopathic family physician along with the basic knowledge, skills, and attitudes necessary for a family physician to care for patients of all ages. Students will gain these skills, knowledge, and attitudes by engaging in structured learning activities, both in the outpatient and inpatient setting, which will prepare students for a unique role in patient management, problem solving, counseling, and coordination of health care for the individual and the family unit. The student is expected to participate in all patient care activities, teaching rounds, educational conferences and lectures.

OMED 740: Pediatrics (PED) - 10.0 Credits
The Pediatrics rotation will provide student exposure to diagnosis and management of pediatric diseases as it applies to newborns, infants, and children. In addition, students will gain knowledge and skill in evaluating normal growth and development of the pediatric patient. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.
OMED 750: Obstetrics and Gynecology (OBG) - 10.0 Credits

The Obstetrics and Gynecology rotation will provide students with an exposure to and understanding of routine OB/GYN care performed in the inpatient and outpatient setting. Students will gain competency in recognizing both normal and abnormal findings encountered by the practitioner of both obstetrics and gynecology. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

OMED 760: Psychiatry (PSY) - 10.0 Credits

The Psychiatry rotation will provide clinical experiences which enable students to acquire the knowledge and skills required to treat behavioral problems, which commonly present in a primary care office while paying particular attention to the stress factors that contribute to emotional dysfunction. This rotation will focus on the importance of the family in relation to individual behavior, and the ability to identify stressing conflicts and communication problems within the family. Students will gain knowledge and experience to care for common psychiatric disorders. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

OMED 780: Rural/Underserved/International Medicine (R/U/I) - 10.0 Credits

The Rural/Underserved/International Medicine rotation will take place primarily in the outpatient setting and will offer a unique experience to the students because of the unique set of problems and challenges facing the practicing physician in those locales. The goal of this experience is to provide students an opportunity to enhance their knowledge, skills, and attitudes that are essential to a successful and satisfying practice in each of these venues. By developing an understanding of the personnel and material requirements of an R/U/I practice, developing a sensitivity to cultural differences, identifying community medical needs, providing care services, and understanding the physician's role in the community, this rotation will provide a sound grasp of the core competencies. The R/U/I rotation will be evaluated and approved by the Associate Dean for Clinical Affairs based on availability, rotation schedules and academic performance. An international rotation will also need the approval by the Chair of Community and Global Health. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

OMED 785: Medical/Surgical Selective - 10.0 Credits

Students will have the opportunity to select from a list of possible rotations in order to attain knowledge and skills in areas of special medical or surgical interest. These rotations will allow students to further enhance their professional development and performance as future osteopathic physicians. Selectives include any medical or surgical specialty and/or a specialty of
interest to the individual student upon approval of the Office for Clinical Affairs. Students are strongly encouraged to utilize this time to strengthen areas of weakness and/or obtain a well-rounded education rather than concentrating on one specific area of medicine. All selectives must be patient-care oriented. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Rotation Descriptions / Fourth Year Rotations (MS-4)

**OMED 870: Residency Development (RD) - 10.0 Credits**

Students participate in a series of learning models that prepare, refine, and measure students' acquisition of knowledge and skills required during fourth year clinical rotations and beyond. Areas include refining approaches to the humanistic and biomedical domains of a patient encounter, approaches to leadership within the medical setting, and specific preparation for application to residency. The summative assessment (e.g., OSCE) yields critical information in determining the students' acquisition of knowledge and skills to prepare for standardized examinations and ultimate clinical care. Such assessment will evaluate critical thinking, decision-making, and problem-solving skills expected to develop during the third-year clinical rotations. This exercise will allow the Office of Clinical Affairs to further identify individuals who may need special emphasis or remediation to prepare for national licensing examinations and the fourth year. This process allows students to achieve a level of competency of knowledge and clinical skills for the completion of the fourth-year graduation requirements and transition to residency.

**OMED 810, 814 and 816: Medical Selective, Surgical and Primary Care Selective - 10.0 Credits each**

There will be three (3) four-week selective rotations in year four. These are one (1) Medical Selective, one (1) Surgical Selective, and one (1) Primary Care Selective. The goal of selective rotations is to enhance and improve students' knowledge and skills in medical and surgical subspecialty areas. It is imperative that students be goal directed in their choice of selectives in order to obtain the maximum benefit from their experiences. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 840: Geriatrics (GER) - 10.0 Credits**

The Geriatrics rotation will use a multidisciplinary approach and engage students in utilizing core competencies. This rotation will address the complex needs of the elderly and emphasize a holistic approach to functional independence, especially in those with a myriad of chronic diseases. This will require the student to interact with physicians, nurses, various social services, occupational therapists, and family members to provide both comprehensive, as
well as end of life care for these patients with multiple needs. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 850: Emergency Medicine (EM) - 10.0 Credits**

The Emergency Medicine rotation will be hospital-based and focus on the students participating in the delivery of emergency care to a diverse population of patients and the management of major and minor emergencies. Experiences will include diagnosis, management, and appropriate care of patients presenting to the Emergency Department. Students will develop skills for the immediate assessment and management of life-threatening and urgent conditions. Students will perform the initial patient evaluation, under physician supervision, and establish an appropriate plan of care. Students will learn such skills as cardiac life support, airway management, and critical emergency procedures. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 860, 862, 864, 866, 868: Elective I, II, III, IV, V (ELEC) – Fourth Year - 10.0 Credits each**

Students will have the opportunity to select twenty (20) weeks of elective rotations provided four weeks are done as a Sub-Internship, see OMED 890 above, in order to further advance their knowledge and skills in areas of special medical or surgical interest. These rotations will allow students to further focus their professional development and performance as future osteopathic physicians. Students are strongly encouraged to utilize this time to choose electives at sites with residency programs of interest, strengthen areas of weakness or obtain further training that will help them transition into residency. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Independent study electives will also be available to enhance student learning during the fourth year. They will immerse the student in a learning environment without the restrictions of a live, clinical rotation attendance policy. Students are permitted to do two (2) of these independent study electives in their fourth year.

**OMED 890: Elective Sub-Internship (SUB I) - 10.0 Credits**

This rotation is generally pursued in the field appropriate to the student’s career interest. Students will perform the initial evaluation and present a diagnostic and therapeutic plan to supervising resident and attending physicians. Subsequent management will be the responsibility of the student in conjunction with the resident and attending physicians.
Students will write daily progress notes, perform indicated procedures on their patients, and interact with consultants and ancillary services as appropriate. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 892: Primary Care Sub-Internship (SUB I) - 10.0 Credits**

This rotation is pursued in the Primary Care field. Students will perform the initial evaluation and present a diagnostic and therapeutic plan to supervising resident and attending physicians. Subsequent management will be the responsibility of the student in conjunction with the resident and attending physicians.

Students will write daily progress notes, perform indicated procedures on their patients, and interact with consultants and ancillary services as appropriate. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 894: Medical Selective Sub-Internship (SUB I) - 10.0 Credits**

This rotation is pursued in the Medical Selective field. Students will perform the initial evaluation and present a diagnostic and therapeutic plan to supervising resident and attending physicians. Subsequent management will be the responsibility of the student in conjunction with the resident and attending.

Students will write daily progress notes, perform indicated procedures on their patients, and interact with consultants and ancillary services as appropriate. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**OMED 896: Surgical Selective Sub-Internship (SUB I) - 10.0 Credits**

This rotation is pursued in the Surgical Selective field. Students will perform the initial evaluation and present a diagnostic and therapeutic plan to supervising resident and attending physicians. Subsequent management will be the responsibility of the student in conjunction with the resident and attending.

Students will write daily progress notes, perform indicated procedures on their patients, and interact with consultants and ancillary services as appropriate. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.
OMED 898: Emergency Medicine Selective Sub-Internship (SUB I) - 10.0 Credits

This rotation is pursued in the Emergency Medicine field. Students will perform the initial evaluation and present a diagnostic and therapeutic plan to supervising resident and attending physicians. Subsequent management will be the responsibility of the student in conjunction with the resident and attending.

Students will write daily progress notes, perform indicated procedures on their patients, and interact with consultants and ancillary services as appropriate. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

APPROVED ELECTIVES:

Anesthesiology - 10.0 Credits

This rotation provides the student with a broad and comprehensive exposure to Anesthesiology. Each student will be involved with all aspects of the pre-, intra-, and post-operative care of patients under direct clinical supervision. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Emergency Medicine - 10.0 Credits

This rotation builds on the introduction to the Emergency Medicine and exposes students to trauma and greater complexities of emergency care. The student will be assigned more complex patients where their advanced diagnostic skills will allow them evaluate patients, form a differential diagnosis, and diagnose and assist in the treatment of the acutely ill patient. Students will also have the opportunity to manage several patients simultaneously, participate in medical triage and care for patients suffering from traumatic injuries. The student will be assigned to various shifts ensure they achieve a diverse experience. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Family Medicine - 10.0 Credits

The Family Medicine elective will allow students to expand their involvement in patient care and enhance their experience with primary care. The student will receive a well-rounded understanding of the day-to-day operations of a family practice. Students will be given the opportunity to evaluate patients and carry out appropriate treatment under the guidance of physician faculty. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.
Cardiology - 10.0 Credits
This is an elective rotation within the Internal Medicine department. This rotation will emphasize physical diagnostic skills, and therapeutic cardiac procedures as related to the cardiac care of the patient. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Critical Care/Intensive Care - 10.0 Credits
This rotation provides the student with experience in ventilator management, as well as hemodynamic monitoring. Students will be involved in the initial diagnostic work up and evaluation of each patient admitted to the ICU. The student will be required to make rounds with the ICU physician daily or more frequently as needed. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Gastroenterology - 10.0 Credits
This is an elective rotation within the Internal Medicine department. The student will learn and be given the opportunity to formulate a differential diagnosis by assimilating clinical findings, lab results and procedures. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

General Internal Medicine - 10.0 Credits
The General Internal Medicine elective rotation will expand the student’s knowledge and competency in Internal Medicine by working as a team with the intern and resident physicians in managing hospitalized patients. Students will oversee the management of patients under the supervision of the attending physician. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Medical Spanish (Independent Study) - 10.0 Credits
This independent study elective will introduce conversational and medically relevant Spanish phrases and terminology for the healthcare professional with limited proficiency in Spanish. Upon completion of this course, students will be able to greet the patient and introduce themselves and other members of the medical team to the patient, interpret basic responses from the patient, communicate and identify basic anatomical terminology, take a basic history of the present illness to determine the chief complaint and relevant information, conduct a general physical exam and communicate key findings to the patient.
**Pulmonology - 10.0 Credits**

This is an elective rotation designed to combine bedside rounds and teaching in the pulmonary laboratory. Students will learn to correlate pulmonary function tests with clinical findings. The student will participate in bronchoscopy and gain knowledge in diseases such as COPD, pneumonia, pulmonary fibrosis, asthma, ARDs, and other pulmonary conditions. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**Pathology/Laboratory Medicine - 10.0 Credits**

This elective rotation provides the student the opportunity to understand how lab tests are ordered and utilized most effectively in evaluating patients. The student will observe day-to-day operations of the lab, such as clinical chemistry, hematology, microbiology, blood bank and immunology. The student will become familiar with the various tests available and develop appropriate test ordering skills. The educational format will include review of test profiles, analysis of other laboratory data and clinical case studies with an emphasis on cost effective laboratory utilization. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**Nephrology - 10.0 Credits**

This elective rotation provides the student with the opportunity to learn the basic principles of evaluation and management of clinical renal syndromes and hypertension. An emphasis will be placed on the recognition, evaluation, and treatment of acid-based and fluid electrolyte disorders. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

**Osteopathic Manipulative Treatment - 10.0 Credits**

This elective rotation will advance the student’s application of osteopathic principles and treatment. The rotation will incorporate medical and structural exam findings, objective criteria and techniques to treat somatic dysfunction. Evaluation of students by attending physicians is performed during patient care on a regular basis in order to affirm competency. The student is expected to participate in patient care, teaching rounds, educational conferences and lecture/lab sessions.

**Ophthalmology - 10.0 Credits**

This elective rotation will expose the student the basic knowledge of examination and diseases of the eye. The student will gain basic information regarding treatment and triage of diseases and injuries of the eye. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.
Orthopedic Surgery - 10.0 Credits

The objective of this rotation is to give the student the opportunity to gain a better understanding of the structure and function of the musculoskeletal system. The student will take part in consultations, rounds, surgical procedures and post-operative care. The student will also have the opportunity to participate in trauma cases in the emergency department. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Psychiatry/Behavioral Health - 10.0 Credits

This elective rotation provides students with a more advanced knowledge base and experience in the assessment and treatment of psychiatric patients. The student works with the attending physician in both inpatient and outpatient settings. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Radiology - 10.0 Credits

During this rotation, students expand their knowledge with respect to radiographic procedures, anatomy and physiology of organ systems and pathologic processes as shown on diagnostic radiology studies. Students will expand their ability to select procedures most appropriate in the diagnoses of their patients. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Radiology (Independent Study) - 10.0 Credits

This independent study elective utilizes a significant amount of online module learning to help students develop a basic understanding of the principles and applications of medical imaging. The course focuses on a patient-centered approach to imaging and helps students build clinical problem-solving skills by utilizing the American College of Radiology Appropriateness criteria.

Research (Independent Study) - 10.0 Credits

The goal of this independent study elective is to provide the student an opportunity to engage in mentored hands-on research and scholarly activity to enhance evidence-based thought processes. This rotation is open to novice or experienced researchers. The research and scholarly activity can assume different types and includes, but is not limited to, a retrospective chart review study, survey study, meta-analysis, critical literature review, case report, quality improvement project, medical education topic, basic science discoveries, or a clinical investigation. A student can be engaged in various parts of the research process. Institutional Review Board approval is necessary for research and some types of scholarly activity.
Surgery/General - 10.0 Credits

Through participation in this rotation, the student will increase their knowledge base in preoperative, intra-operative and postoperative care. They will be working under the direct supervision of residents and attending physicians to learn/apply operative techniques, anatomy, physiology, and pathology. The student also has an opportunity to expand his/her manual skills while assisting in surgery. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Surgery/Vascular - 10.0 Credits

After completion of a General Surgery rotation, students may elect to do a Vascular Surgery rotation. In addition to assisting in surgery, the student will also partake in daily rounds, consults, and time spent in the surgeon’s office. This rotation will expand on previously-learned surgical skills, giving the student an opportunity to work with the vascular surgeon. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

Surgery/Plastic and Reconstructive Surgery - 10.0 Credits

This is a fourth year surgical selective and the student must have successfully completed a General Surgery rotation. The training in this area will include repair, replacement, and reconstruction of defects in form and function. Emphasis will be placed on multiple components of plastic and reconstructive surgery, such as skin and soft tissue tumors, hand surgery and aesthetic surgery. The student is expected to participate in patient care, teaching rounds, educational conferences and lectures.

The most up-to-date list of elective and selective rotations, along with their course descriptions and syllabi are maintained on the MYCUSOM intranet.