

# OMS II

## **LCOM 2023 Patient-Centered Medicine 201 1.5 Credit Hour(s)**

Patient-Centered Medicine 201 is designed to reinforce necessary clinical skills, including the art of medical history taking and physical examination. It introduces the development of a differential diagnosis. This course is the third in a series of clinical skills courses. The course requires active participation and demonstration of the clinical and communication skills necessary to practice medicine. Instructional methods include lectures, clinical laboratory demonstration, small group sessions, standardized patient encounters, simulations, and assigned readings.

**Offered:** Resident

## **LCOM 2024 Patient-Centered Medicine 202 1 Credit Hour(s)**

Patient-Centered Medicine (PCM) 202 is designed to reinforce clinical skills, including the art of medical history taking and physical examination. It continues to emphasize the development of a differential diagnosis. The course is the fourth in a series of clinical skills courses. The course requires active participation and the demonstration of the clinical and communication skills necessary to practice medicine. Instructional methods include lectures, clinical laboratory demonstration, small group sessions, standardized patient encounters, simulations, and assigned readings.

**Offered:** Resident

## **LCOM 2050 Capstone OMS II 1.75 Credit Hour(s)**

The Capstone course requires students to apply medical and psychosocial knowledge and skills to prepare them for entry into the clinical and patient-focused phase of their medical education. The course includes ACLS Clinical Skills Testing and Certification. Students will be expected to demonstrate medical knowledge and clinical skills during simulation and case-based clinical scenarios. Students are expected to utilize proper communication and teamwork, demonstrate appropriate clinical examination skills, and incorporate osteopathic principles and philosophy in the evaluation of various scenarios.

**Offered:** Resident

## **LCOM 2113 Humanities and Medical Jurisprudence I 0.5 Credit Hour(s)**

This course builds on the foundations of the Humanities and Medical Ethics OMS-I courses to include biomedical ethical issues and jurisprudence as they relate to the practice of medicine today. Fundamental moral principles, ethical values and the law are examined in the context of physician decision making. Grades will be pass/fail.

**Offered:** Resident

## **LCOM 2114 Humanities and Medical Jurisprudence II 0.5 Credit Hour(s)**

This course is a continuation of HMJ I and addresses biomedical ethical issues and jurisprudence as they relate to the practice of medicine today. Fundamental moral principles, ethical values and the law are examined in the context of physician decision making. Grades will be pass/fail.

**Offered:** Resident

## **LCOM 3004 Hematology/Oncology 3.25 Credit Hour(s)**

The Hematology/Oncology course is designed to introduce the medical student to the basic concepts, pathophysiology, pathological clinical conditions and therapeutics in the clinical disciplines of Hematology and Oncology. Additionally, immunodeficiency, including HIV, will be covered in the course content. Students apply their expanding understanding of normal and abnormal structure and function of hemolymphoid tissues and cellular elements to the prevention, diagnosis, and treatment of pathologic conditions involving the hematologic system. Principles and mechanisms related to cell proliferation and differentiation that were examined in previous courses are recalled, expanded, and applied as students consider neoplasia in general – from tumor formation to clinical presentation, diagnosis, and treatment. Some of the common benign and malignant neoplastic diseases in adults and children are examined, with an emphasis on epidemiology, clinical presentation, diagnostic approaches, prognosis, and treatment. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

**Offered:** Resident

## **LCOM 3009 Disease and Intervention II: Neurology/Psychiatry/Ophthalmology, Orthopedics/Rheumatology 8.25 Credit Hour(s)**

The Neurology/Psychiatry/Ophthalmology segment builds upon student knowledge of functional neuroanatomy and neuroscience while applying pathophysiological understanding in the generation of appropriate differential diagnoses and treatment plans for pathological conditions commonly found in patients. Furthermore, given the strong interplay between the nervous system and organic neuropsychiatric conditions and human behavior, this segment teaches the requisite knowledge and skills necessary to understand the structural changes and physiologic changes that result in functional neurocognitive capabilities and abnormal behavior. This segment also includes the medical specialties of ophthalmology and otolaryngology. The Orthopedics/Rheumatology segment is designed for students to apply the knowledge of normal and abnormal structure and function of the musculoskeletal system to the prevention, diagnosis, and treatment of pathologic conditions commonly diagnosed and relevant to the medical specialties of orthopedics and rheumatology. Additionally, students are expected to recognize abnormalities, interpret diagnostic findings, and discuss the appropriate application of osteopathic principles into the overall medical treatment plan.

**Offered:** Resident

**LCOM 3011 Disease and Intervention III: Cardiology, Pulmonology, Nephrology, and Urology 10.5 Credit Hour(s)**

The Cardiology segment reviews normal cardiovascular function and covers cellular and organ level pathologic changes and clinical manifestations that occur in the most common cardiovascular diseases. Students will learn risk factors for cardiovascular diseases, clinical presentations of cardiovascular diseases, interpretation of normal and abnormal ECG, diagnostic considerations of cardiovascular disease, and lifestyle and pharmacological interventions for cardiovascular disease. In the Pulmonology segment, students will expand and apply their understanding of normal and abnormal structure and function of the respiratory system from the first academic year. Students will demonstrate their ability to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function of the respiratory system. Clinical evaluation, treatment, and management of congenital and acquired structural and pathophysiological abnormalities are emphasized through didactic and active learning methods using illustrative clinical presentations. Students will discuss the appropriate application of pharmacological and osteopathic medical principles and treatments. The Nephrology and Urology segment builds upon the foundational principles covered in the first year, where the pathological basis of a variety of renal and urogenital diseases are discussed. Focus will be placed on the foundations underlying the interpretation of patient presentations, clinical examination findings, laboratory and radiographic testing results, generation of an appropriate differential diagnosis, and formulation of an appropriate osteopathic treatment plan.

**Offered:** Resident

**LCOM 3012 Neurology/Psychiatry/Ophthalmology 6.25 Credit Hour(s)**

This course builds upon student knowledge of functional neuroanatomy and neuroscience while applying pathophysiological understanding in the generation of appropriate differential diagnoses and treatment plans for pathological conditions commonly found in neurological and psychiatric patients. Furthermore, given the strong interplay between the nervous system and organic neuropsychiatric conditions and human behavior, this course teaches the requisite knowledge and skills necessary to understand the structural changes and physiologic changes that results in functional neurocognitive capabilities and abnormal behavior. This course also includes the medical specialties of ophthalmology and otolaryngology.

**Offered:** Resident

**LCOM 3014 Gastroenterology 4.25 Credit Hour(s)**

As a component of this course, students continue their study of the effects of nutrition on normal growth and development, the role of metabolic products in disease, the role and management of oral, enteral and parenteral feeding techniques in light of general nutrition requirements and the pathophysiology and nutritional disorders. Students apply their expanding understanding of normal and abnormal structure and function of the gastrointestinal system to the molecular basis and biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting the alimentary canal (foregut and hindgut), as well as the liver, gallbladder, and pancreas. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes (anomalies, disorders, neoplastic and non-neoplastic diseases) that result in altered structure and function.

**Offered:** Resident

**LCOM 3015 Nephrology and Urology 3.5 Credit Hour(s)**

Focus will be placed on the interpretation of patient presentations, signs and symptoms, clinical examination findings, and laboratory and radiographic testing results to generate appropriate differential diagnoses and formulation of treatment plans for pathological conditions commonly found in patients. Where appropriate, students should incorporate osteopathic principles and treatment into the overall patient management plan. Clinical reasoning is employed for the discussion of a spectrum of common renal and urologic disorders.

**Offered:** Resident

**LCOM 3016 Women's Health 3 Credit Hour(s)**

Students apply their expanding understanding of normal and abnormal structure and function of the female reproductive system, including the associated endocrine organs, and female genital tract to the biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting these organs and systems. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function. The student will be introduced to diverse conditions and syndromes which contribute to the lack of wellness in women of all ages. The student will gain an appreciation for the pathological conditions that are important in women's health and the prevention, diagnostic evaluation, and treatment of conditions important to a woman's well-being. Reinforced in this course is the role in which pathologic conditions from other systems present and impact the overall wellness and physiology of the female patient.

**Offered:** Resident

**LCOM 3017 Pediatrics 2.75 Credit Hour(s)**

The Pediatrics course is designed to equip students with the fundamental skills and knowledge essential for a professional approach towards the care of pediatric patients and their families. It provides a comprehensive overview of general pediatrics, spanning from the newborn stage through to adolescence, building on foundational principles and understanding of physiological and pathophysiological mechanisms that underpin health and disease. The course will encompass a wide range of topics including neonatology, normal and abnormal growth and development, health supervision and preventive care, genetic and inheritable disorders. It will also delve into common acute and chronic pediatric clinical conditions and presentations, including pediatric emergencies, and the identification of signs of child abuse and neglect. The course will develop the student's ability to obtain detailed and relevant information from patients and their parents/caregivers, conduct a comprehensive examination, and formulate appropriate management approaches and treatments which are highly relevant for boards and clinical rotations.

**Offered:** Resident

**LCOM 3018 Endocrinology 2.5 Credit Hour(s)**

The Endocrinology course focuses primarily on the involvement of the hypothalamus, pituitary, thyroid, parathyroid, pancreas, and adrenal gland components of the endocrine system in human disease processes. The pathophysiology of the diffuse endocrine system that is distributed widely throughout the mucosal portions of the respiratory and gastrointestinal systems is also examined in this course. Students apply their expanding understanding of normal and abnormal structure and function of these components of the endocrine system to the biomedical rationale for the prevention, diagnosis, and treatment of related pathologic conditions. Students should be able to comprehend, synthesize potential solutions for, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

**Offered:** Resident

**LCOM 3019 Orthopedics/Rheumatology/Dermatology 4 Credit Hour(s)**

This course is designed to encourage students to recall and acquire knowledge of normal and abnormal structure and function of the integument, the musculoskeletal system, and the somatic body; applying this knowledge to the prevention, diagnosis, and treatment of pathologic conditions commonly diagnosed in clinical settings and relevant to the medical specialties of orthopedics, rheumatology, and dermatology. The student should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function. Additionally, students are expected to recognize abnormalities, interpret diagnostic findings, and discuss the appropriate application of osteopathic principles into the overall medical treatment plan.

**Offered:** Resident

**LCOM 3020 Cardiology/Pulmonology 7 Credit Hour(s)**

Students will continue to expand and apply their understanding of normal and abnormal structure and function of the cardiovascular and respiratory systems to the biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting these systems. Students will demonstrate their ability to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function of the cardiovascular and respiratory systems. Clinical evaluation, treatment, and management of congenital and acquired structural and pathophysiological abnormalities are emphasized through active learning methods using illustrative clinical presentations. Students will discuss the appropriate application of osteopathic principles and treatments into the overall medical treatment plan.

**Offered:** Resident

**LCOM 3021 Disease and Intervention IV: Gastroenterology, Dermatology 6 Credit Hour(s)**

In the Gastroenterology segment, students will interactively apply their knowledge and understanding of normal and abnormal structure and function of the gastrointestinal system with emphasis on the prevention, diagnosis, and treatment of pathologic conditions affecting the gastrointestinal tract and accessory organs. Students will continue their study of the effects of nutrition on pathological processes. The Dermatology segment is designed to encourage students to recall and acquire knowledge of normal and abnormal structure and function of the integumentary system. This knowledge will be applied to the prevention, diagnosis, and treatment of pathologic conditions commonly diagnosed in clinical settings and relevant to the medical specialty of dermatology. The student should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function. Additionally, students are expected to recognize abnormalities, interpret diagnostic findings, and discuss the appropriate application of osteopathic principles into the overall medical treatment plan.

**Offered:** Resident

**LCOM 3022 Disease and Intervention V: Endocrinology and Reproductive System, Population Based Medicine 5.75 Credit Hour(s)**

In the Endocrinology and Reproductive System segment, students apply their expanding understanding of normal and abnormal structure and function of these components of the endocrine and reproductive system to the biomedical rationale for the prevention, diagnosis, and treatment of related pathologic conditions affecting the organs and systems. The student will be introduced to diverse conditions and syndromes affecting women of all ages, allowing students to gain an appreciation for the normal and pathological components that are important in women's health. Students should be able to comprehend and synthesize potential solutions and interactively apply knowledge of the pathophysiological processes that result in altered structure and function. The Population Based Medicine segment includes principles of preventive medicine, public health, and population genetics. Students consider the role of the osteopathic physician as it is influenced by measures of population and individual health and efforts to improve individual and population health. Topics include an introduction to "big data" in healthcare, social determinants of health, and personalized medicine. The roles of public health related strategies in the prevention of disease and its dissemination are discussed.

**Offered:** Resident

**LCOM 4023 Osteopathic Manipulative Medicine 201 1.75 Credit Hour(s)**

In this third Osteopathic Manipulative Medicine course, the student will build upon the knowledge gained in the OMM 101 and 102 courses. Osteopathic principles and practices introduced in OMM 101 and OMM 102 will be reinforced, and new osteopathic principles and practices will be imparted. Department faculty work in conjunction with other departments to complement and integrate the knowledge received from the basic science and clinical medicine courses. By the end of this course, the student will have been introduced to diagnostic palpation and osteopathic treatment for several common clinical syndromes including visceral, geriatric, pediatric, sports-related, and work-related syndromes. The development and perpetuation of somatic dysfunction will be reviewed. The student will continue to develop an understanding of indications for and contraindications to osteopathic manipulative techniques. The student will be introduced to technique sequencing strategy for osteopathic manipulation. By the end of the course, the student will be ready to enter the OMM 202 course with a basic grasp of how to structure an office visit for a patient utilizing osteopathic evaluation and management.

**Offered:** Resident

**LCOM 4024 Osteopathic Manipulative Medicine 202 1.75 Credit Hour(s)**

In this fourth Osteopathic Manipulative Medicine course, the student will build upon the knowledge gained in previous OMM courses, and new osteopathic principles and practices will be imparted. Department faculty work in conjunction with other departments to complement and integrate the knowledge received from the basic science and clinical medicine courses. By the end of this course, the student will have been introduced to diagnostic palpation and osteopathic treatment for several common clinical syndromes including musculoskeletal complaints during pregnancy, headache, cranial nerve disorders, temporomandibular joint dysfunction, common postural compensatory patterns, and dysfunctional muscle firing patterns. Current theory regarding the development and perpetuation of common neuromusculoskeletal compensatory patterns and dysfunctional muscle firing patterns will be explored. The student will continue to develop an understanding of indications for and contraindications to osteopathic manipulative techniques. The student will be trained to recognize various contributing factors to and presentations of headache. By the end of the course, the student will be ready to enter the clerkship years with a foundational understanding of the osteopathic evaluation and management of many common clinical presentations.

**Offered:** Resident