

# COLLEGE OF OSTEOPATHIC MEDICINE

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## About the College

The College of Osteopathic Medicine consists of three divisions, five academic units, and three offices.

- Clinical Affairs
  - Department of Primary Care and Clinical Medicine
  - Department of Osteopathic Principles and Practice
- Biomedical Sciences
  - Department of Physiology and Pharmacology
  - Department of Biochemistry and Molecular Biology
  - Department of Clinical Anatomy
- Educational Affairs
  - Office of Assessment, Evaluation, and Accreditation
  - Office of Faculty Development, Continuing Medical Education
  - Office of Medical Student Affairs

## Mission

The mission of the Sam Houston State University (SHSU) College of Osteopathic Medicine (COM) is to prepare students for the degree of Doctor of Osteopathic Medicine with an emphasis toward primary care and rural practice, to develop culturally aware, diverse and compassionate physicians, who follow osteopathic principles, that are prepared for graduate medical education, and will serve the people of Texas with professionalism and patient-centered care.

A significant part of the mission of the COM is to increase the physician workforce in the eastern region of Texas and to increase access to primary care. The COM will accomplish this by recruiting qualified applicants from areas to which they would likely want to return and establish their practice.

Mission Creation and Revision

Created: January 16, 2017

Revised: March 9, 2018; July 5, 2018

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## Website

## College of Osteopathic Medicine

# Highlights

SHSU-COM has been awarded Pre-Accreditation from the Commission on Osteopathic College Accreditation (COCA).

- The SHSU College of Osteopathic Medicine is the eighth college of the university and only the third college of osteopathic medicine in the state.
- HB2867 (86R) designates the Sam Houston State University College of Osteopathic Medicine as an official Texas State Medical School.
- The state-of-the-art medical school facility is 108,000 square feet with surface parking on 7.3 acres in Conroe, Texas.
- SHSU's history of contributing to the well-being of the state started over 139 years ago, when the university was established to respond to the need for trained teachers. At the time, state leaders recognized that education was key to improving quality of life and the subsequent prosperity of Texas.
- Today, the university is responding to another critical workforce demand, where education, again, is key to elevating the quality of life for millions of Texans. This led to the development of the College of Osteopathic College, which shares the mission of changing the medical work force in Eastern Texas by improving access to primary care, general surgery, and mental health to name a few of the critical shortages.

# Doctoral Degree

Departments	Programs
College of Osteopathic Medicine	Osteopathic Medicine, DO

# Scholarships

The SHSU-COM is developing scholarship opportunities accessed through the Scholarships4kats (<https://www.shsu.edu/dept/financial-aid/aid/scholarships/>) application process.

# Other

SHSU-COM has programs and organizations that support students' integration into medical school and provide networking and service opportunities for students and faculty.

# Anatomy

## ANAT 7401. Clinical Anatomy 1. 4 Hours.

Students explore gross and microscopic anatomy, embryology and development, and neuroanatomy of the human body. Studies include anatomical features of the back, upper limb, thorax, and abdomen. Laboratory cadaveric dissection, virtual microscopy, radiological and three-dimensional imaging, and models are all utilized as learning tools. Students apply knowledge of anatomical sciences to solving clinical problems.

## ANAT 7402. Clinical Anatomy 2. 4 Hours.

Students explore gross and microscopic anatomy, embryology and development, and neuroanatomy of the human body. Studies include anatomical features of the pelvis, lower limb, head and neck. Laboratory cadaveric dissection, virtual microscopy, radiological and three-dimensional imaging, and models are all utilized as learning tools. Students apply knowledge of anatomical sciences to solving clinical problems.

# Clinical

## CLIN 7213. 4th Year Longitudinal OMM. 2 Hours.

Students continue OMM training that occurs in first, second and third years, to continue the practice of osteopathic palpatory skills, diagnosis and treatment and hands on practice of osteopathic techniques in clinical situations. The course has a component of supervision by osteopathic community faculty and intermittent hands-on sessions at the medical school run by the department of osteopathic manipulative medicine.

Neuromusculoskeletal anatomy is an essential component of this course. Credits: 2.

**Prerequisite:** Successful completion of years 1, 2 and 3 in the College of Osteopathic Medicine, and entry into clinical rotations.

## CLIN 7311. 3rd Year Longitudinal OMM. 3 Hours.

Students continue the training that occurs in first and second year, which is intended to reinforce the practice of osteopathic diagnosis and treatment in the clinical years. Students are expected to maintain the skills of musculoskeletal diagnosis and treatment and hands-on practice in clinical situations. The course has a component of supervision by osteopathic community faculty and intermittent hands-on sessions at the medical school run by the department of osteopathic manipulative medicine. Neuromusculoskeletal anatomy is an essential component of this course. Credits: 3.

**Prerequisite:** Successful completion of years 1 and 2 in the College of Osteopathic Medicine, and entry into clinical rotations.

**CLIN 7401. General Surgery Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in General Surgery. Students are assigned to a hospital for their 3rd year core rotations, and this clinical clerkship is accomplished at the assigned facility. The student is expected to learn the diagnosis and treatment of surgical patients, including pre-operative evaluation, intra-operative and post-operative care, post hospital care, interprofessional team care and office care. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, Passing grade on COMLEX Level 1.

**CLIN 7402. Adult Inpatient Med Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in Adult Inpatient Medicine. Students complete the four week block in each of the third and fourth years and are assigned to a hospital for their third year core rotations, and this course is accomplished at the assigned facility. The student is expected to learn the diagnosis and treatment of adult patients on the inpatient medicine service, including admission criteria, interprofessional team based care, consultations, bedside diagnosis and management, pre-operative evaluation, post-operative medical management, discharge criteria and procedures and post hospital care. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7403. Emergency Medicine Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in Emergency Medicine. Students are assigned to a hospital for their 3rd year core rotations, and this clinical clerkship is accomplished at the assigned facility. The student is expected to learn the diagnosis and treatment of pediatrics and adult patients upon presentation to the emergency department including admission, discharge and transfer criteria, interprofessional team based care, consultations, and bedside diagnosis and management to include trauma care and acute cardiac and respiratory care. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7404. Psychiatry Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in psychiatry and mental health. Students are assigned to a hospital for their third year core rotations and this clinical clerkship will be accomplished as part of the core rotations, but may or may not be at the assigned facility, depending on services provided. The student is expected to learn the diagnosis and treatment of patients in a behavioral health setting. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7405. Family Medicine Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in Family Medicine. Students are assigned to a hospital for their third year core rotations, and this clinical clerkship is accomplished as part of the core rotations, but may occur in the office or hospital setting, or a combination, depending on services provided by the attending physician. The student is expected to learn the diagnosis and treatment of patients in the family medicine office setting and may follow the family physician to the other sites of care based on their practice. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7406. Pediatrics Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in the care of children. Students are assigned to a hospital for their third year core rotations, and this clinical clerkship is accomplished as part of the core rotations, but may occur in the office or hospital setting, or a combination, depending on services provided by the attending physician. The student is expected to learn the diagnosis and treatment of children and may follow the physician to the various sites of care based on their practice. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7407. Women's Health Clerkship. 4 Hours.**

Students complete a four week block in each of the third and fourth years. It provides the student with the opportunity to gain experience in the care of women. Students are assigned to a hospital for their third year core rotations, and the third year block is accomplished as part of the core rotations and may include office in addition to hospital practice, depending on structure of the rotation and services provided by the attending physician. The fourth year block may address aspects of women's health that do not include obstetrics and/or gynecology. The student is expected to gain experience in prenatal care, labor and delivery, gynecology and breast health, and the unique aspects of the care of women in areas such as cardiovascular health, osteoporosis, and breast cancer. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7408. Rural & Underserved Medicine Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to gain experience in the care of rural and underserved populations in a variety of settings. Students are assigned to a hospital for their third year core rotations, and this clinical clerkship is accomplished outside of the main assigned hospital. Aspects of this rotation may occur in a rural or critical access hospital, a nursing home, a rural clinic or a community health center in a rural or urban setting. The student is expected to experience the social and diagnostic challenges associated with caring for populations with limited access to health services due to geography, insurance status and/or health access as well as the satisfaction of making a difference in health disparities. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**CLIN 7410. Elective Clinical Clerkship. 4 Hours.**

This course is a clinical clerkship providing the student with the opportunity to gain experience in any specialty with approval. Students are required to do one 4-weeks block in their third year and seven 4-week blocks in their fourth year. The clinical clerkships is accomplished at the assigned facility in the third year and an affiliated facility in fourth year. The student is expected to learn the diagnosis and treatment of patients appropriate for the selected specialty, including interprofessional team based care, outpatient care, hospital care, surgical care, post hospital care and office care, as appropriate for the specialty. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Step 1.

**CLIN 7414. Medicine Selective Clerkship. 4 Hours.**

This clinical clerkship provides the student with the opportunity to select an area of medicine from a selected group of rotations in medicine. This rotation must be completed within the assigned facility in year three and an affiliated facility in year four. The list of choices for this rotation are: General Internal Medicine, Pediatrics, Family Medicine, Geriatrics, Emergency Medicine, Hospitalist Medicine, Intensive Care, Pulmonology, Cardiology, Gastroenterology, Neurology, Adolescent Medicine, Rural Health, Primary Care Sports Medicine, Public Health, Alcohol and Substance abuse, Adult and Child and Adolescent Psychiatry, Neonatology, Pediatric ICU, and subspecialty pediatrics. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years 1 & 2, Passing grade on COMLEX 1.

**CLIN 7415. Surgery Selective Clerkship. 4 Hours.**

This course provides the student with experience in subspecialty surgery. Students are required to take a 4 week Surgery Selective in each of their third and fourth years, and this clinical clerkship is accomplished at the assigned facility in the third year and an affiliated facility in the fourth year. The student is expected to learn the diagnosis and treatment of surgical patients appropriate for the selected specialty, including pre-operative evaluation, intra-operative and post operative care, post hospital care and office care, as appropriate. Credits: 4.

**Prerequisite:** Successful completion of all coursework in years one and two, successful completion of General Surgery rotation, Passing grade on COMLEX Step 1.

## Clinical Medicine

**CMED 7304. Clinical Medicine 4. 3 Hours.**

The student integrates knowledge and techniques already attained to develop a holistic approach to medicine. Major topics may include cultural diversity, population health, health outcomes, and EBM (evidence based medicine). Simulation and clinical skills focus on the life cycle (pediatrics, women's health, and geriatrics). More advanced simulations and inter-professional events occur. Application of medical decision-making and the performance and documentation of a full history and physical continue to be a focus and requirement for attainment of these skills. This course shares focus and integrated activities with OMM4.

**CMED 7402. Clinical Medicine 2. 4 Hours.**

The student continues the foundational work of becoming a physician with topics that include ethics, professionalism, and self-care with a particular focus given to the mind, behavioral health, and neurologic system. The student physician begins applying medical decision-making, working in collaborative care teams, and the role of the physician in society through simulation and standardized patient exercises. Use of physical examination to identify abnormal cardiopulmonary findings is emphasized. OMM2 shares an integrated focus.

**CMED 7403. Clinical Medicine 3. 4 Hours.**

The student develops more advanced skills with further concentration on ethics, professionalism, and self-care with a particular focus on EBM (evidence based medicine) and population health. The abdomen and pelvis physical examinations are learned in detail. A complete new patient history and physical can now be completed and documented. Simulations continue to include collaborative events with other professional students and expands experience in common physician skills, such as suturing and resuscitation tube placements. This course is taught concurrently and aligns with OMM3.

**CMED 7501. Clinical Medicine 1. 5 Hours.**

The student explores foundational skills and knowledge pertinent to becoming a physician. Topics may include ethics, professionalism, self-care, patient centered, and physician centered history taking. A basic physical examination is learned as well. The pre-clinical student have an opportunity to interact with other health care professions students to learn the importance of teamwork and inter-professional collaboration. OMM1 is paired and integrated alongside this course.

## Medical Systems

**MEDS 7318. Clinical Clerkship Preparation. 3 Hours.**

This course provides the student with the opportunity to review salient principles and procedures essential for the success at the start of clinical rotations. The course reviews the interpretation of electrocardiograms, imaging studies, and laboratory data, as well as OSCE's, procedures in the simulation lab and osteopathic principles. Students are expected to be able to participate in the diagnosis and treatment of patients upon their arrival on a clinical service in their clerkships, and this course serves to ground them in basic medical knowledge and processes. Credits: 3

**Prerequisite:** Successful completion of all coursework in years 1 & 2, passing grade on COMLEX Level 1.

**MEDS 7320. Systems Integration. 3 Hours.**

Students integrate and apply biomedical and clinical concepts previously presented throughout the first two years of the undergraduate osteopathic medical curriculum. Mastery of foundational biomedical and clinical concepts will be assessed. Based upon personal strengths and opportunities, students develop a personalized study plan in preparation for successful completion of the COMLEX-USA Level 1 examination which is required for continuation in the curriculum.

**MEDS 7602. Neuroscience & Behavior. 6 Hours.**

Students explore functional anatomy and physiology of the nervous system in both health and disease, learning to use the neurologic examination, imaging techniques, and biochemical markers, to objectively assess the nervous system. Students learn the signs, symptoms, and consequences of nervous system pathologies resulting from trauma, ischemia, stroke, infection, toxins, autoimmune, and genetic conditions. Students are introduced to an overview of mental health issues, including developmental disorders, adaptive and maladaptive behaviors, mood disorders, stress-induced behavior, fear and anxiety disorders, substance abuse, somatoform disorders, and psychoses. Students also examine ethical, legal, and social aspects related to neuroscience and behavioral pathologies. In order to facilitate cognitive integration of basic and clinical sciences, this course is team-taught by clinicians and basic scientists.

**MEDS 7603. Immune System & HEENT. 6 Hours.**

Students are introduced to the principles of trauma, inflammatory disorders, infections, and cancers associated with HEENT as it relates to the immune system. Students learn to apply the basic concepts of immunology in normal and disease states. Topics, such as immune responses to infections, immune deficiencies, hypersensitivity, tumor and transplantation rejection, are covered in detail. In this course, the HEENT and immune systems are integrated in case-based interactive instruction. Students also apply immunology to diagnose, prevent, and treat infections, cancers, and immunological diseases.

**MEDS 7604. Skin Skeletal & Motor Systems. 6 Hours.**

Students investigate normal and abnormal structure and function of the integumentary, musculoskeletal, and motor systems. These systems are studied at the cellular, tissue, and organ system levels, including normal structure and function as well as states of disease and dysfunction.

**MEDS 7605. Hematopoietic & Renal Systems. 6 Hours.**

Students integrate the functional anatomy and physiology of the renal and hematopoietic systems. Students assess and interpret biochemical markers, signs, and symptoms of renal and hematopoietic pathologies. Students design comprehensive pharmacologic and non-pharmacologic treatment plans and develop an understanding of the ethical, legal, and social aspects related to disease treatment, including dialysis and transplant.

**MEDS 7606. CV & Respiratory Systems. 6 Hours.**

Students integrate concepts related to the cardiovascular and respiratory systems in health and disease. Students analyze environmental and socio-cultural aspects of the region influencing the normal function of the systems. Topics may include morphological sciences (anatomy, histology, and embryology), physiology, pathology, and contemporary therapeutic approaches. Students integrate basic and clinical sciences in the context of commonly presented clinical scenarios.

**MEDS 7607. GI System & Nutrition. 6 Hours.**

Students examine the structure and function of the gastrointestinal (GI) and hepatobiliary systems in both health and disease. Basic tenets of nutrition and the impact of GI dysfunction on nutritional status are discussed. Students evaluate the impact of food and diet, including micro and macronutrients, on health and disease prevention. Topics may include therapeutic diets and nutrition for specific disorders as well as tube feeding, IV alimentation, medical and surgical interventions.

**MEDS 7608. Endocrine Reproductive & Urinary Systems. 6 Hours.**

Students integrate the core biomedical sciences in the identification, differentiation, diagnosis, and management of the normal and abnormal states of the endocrine, reproductive, and genitourinary systems. Students explore the role of hormones and their impact during pregnancy, organ development, organ function, and on metabolism, including discussions relevant to historical and current medical and surgical interventions for localized and systemic diseases for these systems.

**MEDS 7609. Lifecycle. 6 Hours.**

Students explore topics throughout the lifespan from pediatrics to geriatrics. Discussion includes normal growth and development as well as illness and disease. Basic science underpinnings are applied to divergent clinical manifestations and care at various stages of the lifecycle.

## Osteopathic Medicine

**OSTM 7301. Osteopathic Manipulative Medicine 1. 3 Hours.**

Students are introduced to the principles and practices unique osteopathic medicine, including osteopathic examination and techniques. Students develop the contextual framework and basic skills necessary for providing osteopathic patient care. Students also critically appraise osteopathic history and philosophy, thereby beginning professional identity formation as an osteopathic physician.

**OSTM 7302. Osteopathic Manipulative Medicine 2. 3 Hours.**

Students continue their exploration of osteopathic principles and practices as they apply to the nervous, immune, head/eyes/ears/nose/throat and musculoskeletal systems. Students learn new osteopathic exams and techniques, and receive reinforcement of previously learned ones. Osteopathic concepts of mind-body medicine are investigated.

**OSTM 7303. Osteopathic Manipulative Medicine 3. 3 Hours.**

Students continue their exploration of osteopathic principles and practices as they apply to the renal, cardiovascular, pulmonary, and gastrointestinal systems. Students learn new osteopathic exams and techniques, and receive reinforcement of previously learned ones. The concept of spirit and spirituality as they apply to patient care are also included.

**OSTM 7304. Osteopathic Manipulative Medicine 4. 3 Hours.**

Students continue their exploration of osteopathic principles and practices as they apply to the genitourinary and endocrine systems, as well as providing care for pediatric, geriatric, pregnant, and chronic pain patients and athletes. Students revisit osteopathic philosophy from a whole-patient perspective. Students have an opportunity to consolidate materials and skills from the previous three OMM courses and prepare for national examinations.

## **Scientific Methods of Medicine**

**SFOM 7401. Scientific Foundations 1. 4 Hours.**

Students integrate the foundational science principles of cell biology, genetics, biochemistry, biostatistics, and research methods to assess healthy and disease states. Students build the knowledge base required for subsequent integrated system courses.

**SFOM 7402. Scientific Foundations 2. 4 Hours.**

Students integrate the foundational science principles of pharmacology, microbiology, immunology, physiology, pathology, epidemiology, and public/population health to assess healthy and disease states. Students build the knowledge base required for subsequent integrated system courses.