

# DUAL DEGREE M.D./OMS CERTIFICATE PROGRAM

The Oral and Maxillofacial Surgery (OMS) certificate program is a six-year course of study, leading sequentially to an M.D. degree and then an OMS Certificate. All of the training occurs on the campus of the health science center or on rotations with clinical partners affiliated with the health science center. There are currently no off-site rotations.

## Admissions Requirements

Applications to the M.D./OMS Certificate Program are submitted through the American Dental Education Association Postdoctoral Application Support Service (ADEA PASS) and acceptances are offered through the Postdoctoral Dental Matching Program at National Matching Services, Inc. The applicants must have a dental degree granted by a Commission on Dental Accreditation (CODA)-recognized school in the United States or Canada, must be a U.S. citizen or legal resident, and must demonstrate outstanding academic ability, clinical skills and professionalism.

The Long SOM Admissions Committee has full and final authority for all students admitted to the M.D. program. The M.D./OMS Liaison of the Long SOM Admissions Committee will assist the combined certificate program with reviews, interviews, assessments and selections of potential applicants. The members of the M.D./OMS subcommittee present at deliberations will approve the rank list on behalf of the entire Long SOM Admissions Committee. The M.D./OMS Certificate Program will accept a maximum of four students per entering class.

Only applicants who are American citizens or possess official status as Permanent Residents of the U.S. can be considered for interview and acceptance at this time.

## Degree Requirements

Students in the M.D./OMS Certificate Program are given predetermined advanced standing in the medical school because much of their foundational curriculum was completed during dental school. The Long SOM analyzes longitudinal-styled modules. The Long SOM will allow for a maximum bulk transfer of 44 credit hours for the successful completion of foundational coursework in a CODA-recognized D.D.S. or D.M.D. program. The foundational coursework can include Biochemistry, Embryology, Introduction to Professional Ethics, Introduction to History Taking and Physical Exam Skills, Foundations of Professional Development, Gross Anatomy, Histology, Microbiology, Pharmacology, and Physiology.

## Plan of Study

### Preclinical Curriculum

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CIRC 6009	Endocrine and Female Reproductive	7
CIRC 6011	Digestive Health and Nutrition	7
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Students are on OMS rotation in mid December after formal semester ends

CIRC 5017	Hematology	3
CIRC 5013	Respiratory Health	4
CIRC 5011	Circulation	5

CIRC 5015	Renal and Male Reproductive	5
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Students are on OMS rotation in mid June after formal semester ends

### Clinical Curriculum

EMED 3005	Emergency Medicine Clerkship	4
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MEDI 3105	Medicine Clerkship	8
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PEDI 3005	Pediatrics Clerkship	6
PSYC 3005	Psychiatry Clerkship	6
SURG 3005	Surgery Clerkship	8

### Advanced Clinical Rotations

The advanced clinical rotations are designed to prepare students for their one-year graduate surgical training prior to the two-year advanced OMS specialty rotations.

Inpatient sub-internship selective 4 weeks:

ANES 4002	Critical Care	4
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Ambulatory care selective 4 weeks and an elective 20 weeks:

SURG 4012	Oral Maxillofacial Surgery	4
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Didactics 4 weeks:

INTD 4105	Medical Jurisprudence	0.5
MEDI 4115	Palliative Care	0.5
PATH 4290	Clinically Applied Laboratory Medicine (CALM)	0.5

Four didactic electives chosen by the student (0.5 hours/elective)

Students are on OMS rotation for additional 20 weeks

Students must also pass USMLE Step 1 and USMLE Step 2 CK within three attempts as a requirement for medical school graduation.

Of note, during all three years of the M.D. component of the OMS Certificate Program, students may have additional didactic or clinical training requirements that are outside the typical Long School of Medicine Academic Calendar. These additional requirements are not mandatory requirements for the M.D. degree, but are necessary requirements for the OMS Certificate.

### ANES 4002. Critical Care. 4 Credit Hours.

Students are required to participate in the adult surgical intensive care unit at Audie Murphy VA Hospital. Emphasis will be placed on the diagnosis and treatment of all aspects of acute respiratory failure, especially that occurring in the postoperative state, including post-cardiac surgery. The principles of pulmonary, renal, cardiac, and nutritional support will be discussed. The ethics of life support are also discussed.

### CIRC 5005. Clinical Skills Longitudinal Module. 14.75 Credit Hours.

The Clinical Skills Longitudinal module threads throughout the entire first and second year curriculum. Using standardized and real patients, students learn medical history taking and physical examination techniques. In addition, through didactic sessions, simulations, small group sessions and labs, students master the knowledge, communication skills, professional, and interpersonal skills necessary for fostering positive doctor-patient relationships.

**CIRC 5011. Circulation. 5 Credit Hours.**

The Circulation module provides an integrated approach to the basic and clinical science concepts related to the cardiovascular and hematopoietic systems. Students acquire a broad understanding of normal structure and function of the cardiovascular and hematopoietic systems including the cardiac cycle, cardiovascular pressures and flows, nutrients and oxygen delivery, hematopoiesis, and the hemostasis system through active, collaborative learning activities which may include, but are not limited to, laboratory, small group, and clinical case sessions. A comprehensive, multidisciplinary overview of the pathophysiology, epidemiology, biostatistics, interpretation of diagnostic tests, and pharmacotherapeutic and other therapeutic principles related to cardiovascular and hematopoietic disorders is included.

**CIRC 5013. Respiratory Health. 4 Credit Hours.**

The Respiratory Health module integrates basic science and clinical concepts related to respiratory health disease. A comprehensive study is conducted of the normal structure and function, pathophysiology/pathology, clinical manifestations, and interpretation of diagnostic tests for respiratory diseases. The student is immersed in a multidisciplinary study of pharmacotherapeutic approaches to treatment, interventional therapies, the use of evidence-based medicine and research, epidemiology, and prevention in the field of respiratory health. Students acquire a broad understanding of normal and abnormal respiratory system function through active, collaborative learning activities which may include, but are not limited to laboratory, small group, and clinical case sessions.

**CIRC 5015. Renal and Male Reproductive. 5 Credit Hours.**

The Renal and Male Reproductive module is a comprehensive overview of the structural and urologic components of the renal and the male reproductive system. Students gain a deeper understanding of glomerular and tubular function and pathology, as well as acute and chronic kidney injury and also benefit from a multidisciplinary approach represented by adult and pediatrics, and biochemistry. A broad understanding of normal and abnormal renal and male reproductive system function is achieved through active, collaborative learning activities that may include, but are not limited to laboratory, small group, and clinical case sessions.

**CIRC 5017. Hematology. 3 Credit Hours.**

The goal of this course is to expose students to the pathogenesis and pathophysiology of disease and disorders as they pertain to the specialty of hematology. During the module, the first year medical students will come to appreciate the basic science foundation for the clinical practice of Hematology. Students will gain an understanding of the medical non-medical factors that effect the hematology system.

**CIRC 6007. Mind, Brain and Behavior. 9 Credit Hours.**

Mind, Brain, and Behavior module provides a comprehensive introduction to the normal anatomy, development, physiology and radiological features of the human nervous system and its pathologic disorders. Through active learning methods, students will practice clinical assessment of the nervous system while learning the major features of common neurological, neurosurgical, psychiatric and psychological disorders and pharmacological approach for the nature of the experience of the brain. The student will gain an appreciation for the nature of the experience of having an illness affecting the brain and mind, and a deepened compassion for patients with these illnesses.

**CIRC 6009. Endocrine and Female Reproductive. 7 Credit Hours.**

The Endocrine- Reproductive module provides an integrated, comprehensive study of the normal structure and function of the endocrine and reproductive systems as well as the clinical manifestations of endocrine and reproductive disorders. Innovative, active learning methods which may include, but are not limited to laboratory, small group, and clinical case sessions allow students to develop critical thinking skills and gain a deeper understanding of the role of the endocrine system in regulation of metabolic activity, water and electrolyte balance, the endocrinology of the menstrual cycle, pregnancy, as well as human reproduction. The students benefit from a multidisciplinary approach incorporating the study of pharmacotherapeutic modalities, evidence based medicine, as well as current clinical/translational research applications into the endocrinology/reproductive medicine curriculum.

**CIRC 6011. Digestive Health and Nutrition. 7 Credit Hours.**

The Digestive Health and Nutrition module provides an integrated overview of the basic science and clinical concepts related to digestive health and nutrition. Through innovative learning methods that may include, but are not limited to laboratory, small group, and clinical case sessions, students gain a deeper understanding of the normal structure and function of the digestive system, as well as pathophysiology/pathology, clinical manifestations and interpretation of diagnostic tests as they relate to digestive health and nutrition. This comprehensive, multidisciplinary study includes pharmacotherapeutic approaches to treatment, interventional therapies, psychosocial aspects of digestive disease, the use of evidence-based medicine and research, epidemiology, and prevention in the field of digestive health and nutrition.

**EMED 3005. Emergency Medicine Clerkship. 4 Credit Hours.**

This four week core clerkship introduces the 3rd year medical students to the specialty of emergency medicine and reviews principles of emergency care that will benefit a graduate entering any specialty.

**EMSP 4100. Advanced Cardiac Life Support. 1 Credit Hour.**

The focus of this course is the initial management of the cardiopulmonary- arrest patient including advanced airway management techniques, cardiovascular pharmacology, defibrillation, and arrhythmia analysis. The student must review the current AHA ACLS text prior to class. Successful completion results in an ACLS Provider Course Completion Card. Instruction presented satisfies guidelines published by the American Heart Association's ECC for their ACLS core curriculum.

**FMED 3005. Family Medicine Clerkship. 6 Credit Hours.**

The family medicine clerkship introduces students to the principles, philosophy, and practice of family medicine, including fundamental concepts of comprehensive, continuous, cost-effective, family-oriented medical care. Students participate in the care of patients in various outpatient and inpatient settings. Students will have the opportunity to practice clinical problem solving in the undifferentiated patient and to improve their basic clinical skills. Students are expected to gain basic knowledge in the diagnosis and management of common family medicine problems, health promotion/disease prevention, and geriatrics. Prerequisites: Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.

**INTD 3030. Clinical Foundations. 3 Credit Hours.**

The purposes of this completely online course are to: 1. Prepare early clinical students to increase knowledge in clinical settings including: a. Exposure to healthcare team members, b. Exposure to roles on clerkship (H&Ps, orders, SOAP notes, prescriptions, etc.), c. Interpretation of EKGs and radiographs, d. Interpretation of normal/abnormal lab values, e. Recognition of fatigue/strategies to combat fatigue in clinical settings, f. Basic understanding of ventilator management/ICU care, g. Patient insurance issues/patient health care financial resources, h. Avoidance of medical legal problems, i. Better success on exams, j. Performance of evidence-based searches in medical literature, k. Understanding fundamentals of translational research; 2. Assist students in developing new skills expected of early clinical students including: a. Intravenous catheter placement, nasogastric catheter placement, urinary catheter placement, and O2 management, b. Sterile gloving and sterile technique, c. Basic suturing/staple placement and removal; and 3. Prepare early clinical students for their roles in clinical settings including: a. Patient care under supervision, b. Patient privacy-HIPAA, c. Professionalism and responsibility to team and patients, d. Patient safety, e. Proper use of social media in patient care, f. Strategies to be best student on the first clerkship, g. OSHA and hand hygiene, h. Proper professional attire, i. Completion of evaluations on residents and faculty. The students will complete credentials for major clinical sites.

**INTD 4105. Medical Jurisprudence. 0.5 Credit Hours.**

The course will center on the Texas Medical Practice Act and applicable federal laws.

**MEDI 3105. Medicine Clerkship. 8 Credit Hours.**

The objectives of this clinical experience are to provide opportunities for students to develop patient evaluation skills, productive self-learning techniques, a sound pathophysiological approach to medical disease, a concern and awareness for the patient's needs, and personal professional behavior. The student spends eight weeks, divided into two 4-week blocks, assigned to the inpatient General Medicine Service. An additional four weeks are spent in outpatient services. Bedside clinical teaching is emphasized by asking the student to perform patient evaluations, to contribute to the care of selected patients, and to participate in the clinical rounds of the services. During this clerkship the student receives intensive instruction from the Internal Medicine house staff and faculty. In addition, the student is expected to undertake independent patient-oriented reading and to systematically review pertinent information introduced during the preclinical years. Finally, students attend a series of clinical conferences including medical grand rounds, morbidity and mortality conferences, clinical subspecialty conferences, and organized courses in electrocardiography and nutrition. Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships. The student spends eight weeks, divided into two 4-week blocks, assigned to the inpatient General Medicine Service. An additional four weeks are spent in outpatient services. Bedside clinical teaching is emphasized by asking the student to perform patient evaluations, to contribute to the care of selected patients, and to participate in the clinical rounds of the services. During this clerkship the student receives intensive instruction from the Internal Medicine house staff and faculty. In addition, the student is expected to undertake independent patient-oriented reading and to systematically review pertinent information introduced during the preclinical years. Finally, students attend a series of clinical conferences including medical grand rounds, morbidity and mortality conferences, clinical subspecialty conferences, and organized courses in electrocardiography and nutrition.

**MEDI 4115. Palliative Care. 0.5 Credit Hours.**

This MS4 didactic elective will focus on the main beliefs of palliative care, which include symptom control and end-of-life care in general and in specific populations, fulfilling the following educational principles, applicable to many other areas in medicine: \* Communication skills instruction for medical students \* Exposure to interdisciplinary teams (IDT) \* Instruction in the multicultural practice of medicine.

**NEUR 3005. Neurology Clerkship. 4 Credit Hours.**

This core clerkship is designed to give the student experience in the evaluation, diagnosis, and treatment of patients with neurologic disorders. The format of the clerkship consists of three weeks on a variety of inpatient services and one week in the outpatient clinic setting. During the clerkship, students will attend didactics, grand rounds, and a lumbar puncture clinical skills lab. The student will be expected to participate in the complete care of assigned patients spending time at six possible inpatient services: UH wards, VA wards, UH stroke team, UH neuro-intensive care unit, pediatric neurology, and UH neurological consult service. Outpatient rotations will be in Neurology subspecialty or private practice clinics. Students will work with multidisciplinary teams in a variety of different settings, and they will be exposed to a variety of neurological disorders. The goal of the rotation is to allow the student to master the neurological exam and enhance their knowledge of the most common neurological diseases.

**OBGY 3005. Obstetrics/Gynecology Clerkship. 6 Credit Hours.**

A clerkship consisting of gynecology and obstetrics is provided for medical students who have successfully completed the course in reproductive physiology and pathophysiology. The goal of the clerkship is to provide students with opportunities to prepare to function as a house officer capable of providing preventive care and treatment or competent to identify the patient's need for direction into an appropriate care environment. Supervised direct patient experience occurs in the obstetrical wards, operating room, labor and delivery suite, emergency room, and the obstetrical, gynecologic, family planning, and cancer detection clinics. A guide identifying instructional goals and the mechanisms to reach them is provided. Twenty-five seminars provide the opportunity for integration of clinical experience and didactic learning. In order to enroll, students must have successfully completed all required preclinical courses.

**PATH 4290. Clinically Applied Laboratory Medicine (CALM). 0.5 Credit Hours.**

This course is an eleven-contact-hour mandatory course in laboratory medicine for MSIV students. Offered during the spring semester, the course is taught by members of the Pathology Department using patient case scenarios to illustrate laboratory medicine aspects of patient care management. An introductory one-hour lecture is presented to the entire class as a whole to provide course format information and small-group assignments. Groups of twenty-five to thirty students are formed based upon medical/surgical specialties; a student is assigned to a group according to chosen specialty. Patient cases are selected to emphasize important laboratory medicine points pertinent to a particular specialty.

**PEDI 3005. Pediatrics Clerkship. 6 Credit Hours.**

This third-year pediatric clerkship addresses issues unique to childhood and adolescence by focusing on human developmental biology, and by emphasizing the impact of family, community, and society on child health and well-being. Additionally, the clerkship focuses on the impact of disease and its treatment on the developing human, and emphasizes growth and development, principles of health supervision, and recognition of common health problems. The role of the pediatrician in prevention of disease and injury and the importance of collaboration between the pediatrician and other health professionals is stressed. During this clerkship, students spend time working in outpatient and inpatient settings.

**PSYC 3005. Psychiatry Clerkship. 6 Credit Hours.**

The psychiatric clinical clerkship is designed to familiarize the student with the personality traits, illnesses, and emotional disturbances that affect health and productivity. It is an opportunity for the student to develop and strengthen clinical skills in interviewing patients, formulating treatment plans, and carrying out treatment with patients who have psychiatric illness. The clerkship is arranged so the student may select the assignment area on the basis of particular interest, i.e., an inpatient/outpatient setting. The student's role in the clerkship is arranged to allow for considerable experience in the working relationship between patient and "physician" in the treatment process. Seminars have been developed to allow the student an in-depth appreciation of the various psychiatric states and emotional problems that affect the general practice of medicine. The student-staff ratio allows for small groups of students to meet with faculty, thereby enhancing learning. The clerkship is an opportunity for the students to look at their personal feelings and values and understand how they influence patient care, to learn how to deal with psychiatric disease, and to become more comfortable in dealing with the personalities of patients with organic disease. Prerequisites: Successful completion of all required preclinical courses is prerequisite to enrollment in any of the clinical clerkships.

**SURG 3005. Surgery Clerkship. 8 Credit Hours.**

The eight-week core surgery clerkship is divided into a four-week general surgery rotation and a four-week surgery specialty rotation. The goals of the third-year surgical curriculum are divided into 5 broad categories: 1. Preparation of the medical student for patient care/clinical skills, including a. performance of a focused history and physical examination on a surgical patient, b. interpretation of diagnostic tests and procedures for the surgical patient, c. performance of basic technical skills, d. demonstration of clinical reasoning and problem-solving skills for the surgical patient, e. formulation of a diagnostic and therapeutic plan for a surgical patient; 2. Increase fund of medical knowledge for a surgical patient, 3. Self-directed learning, 4. Application of best evidence-based practices to improve patient care and to prepare for daily activities, and 5. Development of interpersonal and communication skills, including: a. oral presentations to the surgical team, b. written notes in the medical record, c. relationship with patients and their families, d. relationship with the healthcare team, e. practice of professionalism in all settings. In order to achieve these goals, the student should have a sound knowledge of surgical anatomy and the pathophysiology of surgical illness. The student should have strong understanding of the patient's surgical disease process. The student should master simple basic technical skills by the end of the clerkship. The student should master a focused history and physical examination on a surgical patient. The student should propose and interpret diagnostic tests and procedures that are appropriate for the surgical disease. The student should develop a differential diagnosis and demonstrate clinical reasoning and problem-solving skills that integrate clinical data. The student should develop a logical diagnostic and therapeutic plan for surgical problems. The student should develop strong interpersonal relationships and communication skills with patients, their families and the healthcare team. The student should be well read and well prepared for operations and rounds, and begin to develop good habits for self-directed, lifelong learning. The student should demonstrate an understanding of best practices that improve the health of surgical patients. The student should provide competent, compassionate care for patients in all surgical settings.

**SURG 4012. Oral Maxillofacial Surgery. 4 Credit Hours.**

Senior students function as "interns" on the oral maxillofacial surgery service. They admit and discharge oral maxillofacial patients. They perform history and physical examinations, and keep daily records on oral maxillofacial patients. They follow patients in the outpatient clinics, in the emergency department, in the intensive care units, and on general wards. They participate in operations for their patients. They participate in pre- and post-operative care of oral maxillofacial issues including outpatient sedation and anesthesia, dentoalveolar surgery, facial fractures, facial aesthetic and reconstructive surgery, management of facial and dental pain, and management of facial infections.