

Oral Sciences (OSCI)

Courses

OSCI 441. Statistics for Oral Sciences. 3 hours.

Prepares students enrolled in the Master of Science in Oral Sciences for the thesis research project. Students learn how to collect, organize and analyze data and apply this knowledge and skill to future research projects. Course Information: Extensive computer use required. The course is taught in an online format.

OSCI 451. Research Methodology. 1 hour.

Designed to help the student understand, utilize and appreciate the process of scientific inquiry. Course Information: Primarily intended for students enrolled in the Master of Science in Oral Sciences degree program. Prerequisite(s): Matriculation into the Master of Science in Oral Sciences program, or courses in basic biological sciences or the equivalent background and consent of the instructor.

OSCI 452. Biological Basis of Oral Diseases. 2 hours.

Focuses on the biological basis of oral disease and modern concepts in the biomedical sciences. Course Information: Prerequisite(s): BCMG 411 and HSTL 451 or the equivalent courses, or consent of the instructor.

OSCI 504. Advanced Dental Materials. 3 hours.

A seminar course designed to develop an advanced understanding of dental materials and a fundamental knowledge of materials science. Involves a critical evaluation of the literature.

OSCI 506. Advanced Oral Histology and Immunology. 2 hours.

Lectures and discussions on the structure and functions of lymphoid tissues with special interest in orally related diseases. Course Information: Previously listed as HSTL 506. Prerequisite(s): HSTL 401 and consent of the instructor.

OSCI 510. Advanced Oral Microbiology. 1 hour.

Dental aspects of microbiology including oral flora, host responses, anaerobic microbiology, specific oral bacteria, plaque, pathogenic mechanisms, oral infections, caries, periodontal diseases, endodontic microbiology, and infection control. Course Information: Previously listed as OMSD 610. Prerequisite(s): MIM 322 - Microbiology for the Dental Student.

OSCI 514. Craniofacial Cell and Tissue Engineering. 3 hours.

Introduces students to regenerative medicine and the translational applications to clinical practice with an emphasis on craniofacial structures.

OSCI 515. Craniofacial Biomaterials. 3 hours.

Provides fundamental understanding of regenerative medicine and craniofacial applications. Focuses on basic science principles of cell and molecular biology with emphasis on stem cells.

OSCI 530. Diagnosis and Treatment Planning in Orthognathic Surgery. 2 hours.

Orthodontic surgical topics of practical interest to orthodontists and oral and maxillofacial surgeons. Course Information: Satisfactory/Unsatisfactory grading only. Previously listed as OSUR 532. Prerequisite(s): Enrollment in a certificate program in the College of Dentistry or approval of department.

OSCI 531. Peer Reviewed Publishing. 3 hours.

Preparation and submission of a manuscript suitable for a peer-reviewed publication. Course Information: 3 hours. Prerequisite(s): Open only to students in the UIC College of Dentistry Postgraduate Specialty Programs. Class Schedule Information: To be properly registered, students must enroll in one Discussion and one Laboratory.

OSCI 534. Dental and Medical Anthropology Within Human Evolution. 1-3 hours.

Studies the biological and physical anthropology of hominid teeth and the craniofacial complex with relevant medical anthropology, ethno-pharmacology, forensic sciences, and paleo-pathology topics. Course Information: Same as ANTH 534 and PMPG 534. Field work required. A lab experience, independent study and a research paper is required for 3 hours of credit. Prerequisite(s): Graduate standing and consent of the instructor.

OSCI 544. Advanced Craniofacial Anatomy. 3 hours.

Functional and clinical aspects of head and neck anatomy. Includes laboratory dissection and readings from the anatomical, clinical and other literature. Course Information: Same as ANAT 544. Specimen provision by sponsoring department required. Prerequisite(s): DDS or MD degrees, a course in human head and neck anatomy. Class Schedule Information: To be properly registered, students must enroll in one Laboratory-Discussion and one Lecture-Discussion.

OSCI 560. Structure, Organization, and Regulation of Dental Healthcare and Research. 4 hours.

This modular, multidisciplinary course will examine the topics of statistics, research design, evidence-based dentistry, ethics, professionalism and regulatory issues as they apply to clinical practice as well as the research and academic environment.

OSCI 561. Molecular Basis of Oral Disease. 4 hours.

Covers the molecular basis of major oral diseases including: caries, periodontitis, viral diseases, salivary dysfunction and cancer. Students will learn the reciprocal relationship between systemic health and oral disease.

OSCI 562. Craniofacial Biology. 4 hours.

Multi-disciplinary, inter-professional course examining functional physiology and craniofacial complex. Course mastery includes imaging and pharmaceutical management of craniofacial nociceptive, neuropathic, and psychogenic pain conditions.

OSCI 563. Wound Healing and Regenerative Sciences. 4 hours.

Multi-disciplinary comprehensive review of the basic and applied principles behind wound healing and tissue regeneration in the dental and craniofacial complex.

OSCI 564. Interdisciplinary Research Seminar. 1 hour.

A multi-disciplinary seminar course that involves case presentation by dental residents from various specialties. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated to a maximum of 4 hours.

OSCI 580. Advanced Oral Sciences I. 2 hours.

Discussion follows presentation of faculty research. Topics include developmental and molecular biology, tissue engineering, genetics and structural biology in tandem with cutting-edge dental technology.

OSCI 581. Advanced Oral Sciences II. 2 hours.

Continuation of OSCI 580. Course Information: Prerequisite(s): OSCI 580.

OSCI 583. Research Laboratory Rotation. 1-4 hours.

Students participate directly in laboratory research; learn to approach a scientific problem and to perform various experimental techniques to investigate the problem. Course Information: May be repeated to a maximum of 6 hours.

OSCI 593. Independent Research in Oral Sciences. 1-8 hours.

Faculty supervised research projects. Research may not duplicate that being done in OSCI 598. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): Consent of the instructor.

OSCI 594. Special Topics in Oral Sciences. 1-4 hours.

Content varies. Selected topics of current interest in oral sciences. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): Graduate or postgraduate standing and consent of the instructor.

OSCI 595. Oral Science Research Seminar. 1 hour.

Oral science research presentations and journal article discussion by students. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Prerequisite(s): Enrollment in the PhD or MS in Oral Sciences, or consent of the instructor.

OSCI 596. Independent Study. 1-4 hours.

Faculty-supervised independent study not included in regular course offerings. Course Information: May be repeated. Students may register in more than one section per term. Prerequisite(s): Consent of the instructor.

OSCI 597. Capstone Project Research. 0-6 hours.

Capstone project research to fulfill Master's degree requirements. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated to a maximum of 12 hours.

OSCI 598. Master's Thesis Research. 0-16 hours.

Thesis research to fulfill master's degree requirements. Course Information: Satisfactory/Unsatisfactory grading only. May be repeated. Prerequisite(s): Matriculation into the Master of Science in Oral Sciences program and consent of the director of graduate studies.

OSCI 599. Doctoral Thesis Research. 0-16 hours.

Independent investigation carried out by Ph.D. candidates under supervision of the student's Advisory Committee. Course Information: Satisfactory/Unsatisfactory grading only. Prerequisite(s): Satisfactory completion of Candidacy Examination.