Oral Science

Director
- Jeffrey A. Banas (Pediatric Dentistry)

Graduate degrees: M.S. in oral science; Ph.D. in oral science
Faculty: https://dentistry.uiowa.edu/directory
Website: https://dentistry.uiowa.edu/students/specialty-programs/oral-science-graduate-program

Graduate programs in oral science require that students complete courses from a core curriculum and conduct independent research leading to a thesis. The programs prepare graduates for a variety of career options. They are intended to equip graduates for a variety of career options for which the ability to conduct research or understand the principles of scientific inquiry are essential.

Students must enroll in a professional certificate program offered by a College of Dentistry department in order to enroll in the Master of Science program in oral science. The following departments offer their certificate students the opportunity to earn M.S. degrees in oral science: endodontics, prosthodontics, operative dentistry, periodontics, and oral pathology, radiology, and medicine.

Programs

Graduate Programs of Study

Majors
- Master of Science in Oral Science
- Doctor of Philosophy in Oral Science

Courses

Oral Science Courses

ORSC:5200 Seminars in Dental Research
ORSC:5210 Dental Sciences Research Methodology
ORSC:5212 Statistical Methods for Dental Research
ORSC:5215 Research Design in Dentistry
ORSC:5240 Pathophysiology of the Pulp-Dentin Complex
ORSC:5250 Current Concepts of Cariology
ORSC:5260 Bone and Tooth Support Structure and Implants
ORSC:5275 Oral Microbiology and Immunology
ORSC:5280 Advanced Dental Therapeutics
ORSC:5300 Dental Management for Patients with Complex Medical History
ORSC:5600 Research in Oral Science
ORSC:5610 Independent Study
ORSC:5620 Oral Sciences Colloquium

ORSC:5200 Bone and Tooth Support Structure and Implants 0-2 s.h.
Biology of bone and periodontal structures; biologic basis for therapeutic use of dental implants. Offered fall semesters of odd years.

ORSC:5275 Oral Microbiology and Immunology 0-2 s.h.
Principles of microbiology and immunology, aspects of microbial community development in the oral cavity, basic concepts of host/parasite interactions related to development of oral diseases; biological, immunological, and clinical manifestations induced by major oral pathogens. Offered spring semesters of odd years. Requirements: microbiology, biochemistry, and biology. Recommendations: immunology.

ORSC:5280 Advanced Dental Therapeutics 0-1 s.h.
Antimicrobial, analgesic, related therapies; emphasis on drug/drug interactions, dental implications of chronic cardiovascular and central nervous system medications. Offered fall semesters.

ORSC:5300 Dental Management for Patients with Complex Medical History 0-1 s.h.
Risk assessment, treatment planning, medically compromised patients, systemic complications, medical emergency in dental offices. Offered fall semesters of odd years.

ORSC:5600 Research in Oral Science arr.
Thesis research. Requirements: oral science M.S. or Ph.D. candidacy.

ORSC:5610 Independent Study 0-3 s.h.
Opportunity to pursue in-depth study in a particular area of interest; students meet with faculty member to design plan of study.

ORSC:5620 Oral Sciences Colloquium arr.
Presentations, seminars, and discussion sessions on research presentations; career and individual development plans for graduate and postdoctoral students in the oral sciences program.