

ORAL BIOLOGY (ORBI)

ORBI 305 RESEARCH METHODOLOGY 1 Credit Hour

This course is designed to introduce concepts in research methodology and entry-level statistics in order for students to develop skills necessary to review the literature, appraise the evidence, apply evidence-based practice, and conduct original research. Students will conduct a review of the literature associated to their research question, develop a study design, and implement data collection. Upon completion of the research, a poster presentation will be given by the students during the spring term of their senior year at Research Day as well as the Nebraska Dental Hygienists' Association Annual Session.

Prerequisite: DHYG 309

Typically Offered: SPRING

ORBI 305A RESEARCH METHODOLOGY 0 Credit Hours

This course is designed to introduce concepts in research methodology and entry-level statistics in order for students to develop skills necessary to review the literature, appraise the evidence, apply evidence-based practice, and conduct original research. Students will conduct a review of the literature associated to their research question, develop a study design, and implement data collection. Upon completion of the research, a poster presentation will be given by the students during the spring term of their senior year at Research Day as well as the Nebraska Dental Hygienists' Association Annual Session.

Prerequisite: DHYG 309

Typically Offered: SPRING

ORBI 315 OSTEOLOGY OF THE SKULL 1 Credit Hour

A study of the osteology of the skull as an introduction to the anatomy of the head and neck.

Typically Offered: FALL

ORBI 316 HEAD & NECK ANATOMY 2 Credit Hours

A systematic study of the structures of the head and neck.

Prerequisite: ORBI 315 or Permission of Course Director.

Typically Offered: SPRING

ORBI 317 SPECIAL TOPICS IN ORAL BIOLOGY 2 Credit Hours

A didactic course with selected topics in oral biology, including aspects of oral biochemistry, physiology, pharmacology, and microbiology followed by an overview of gross anatomy topics.

Typically Offered: FALL

ORBI 319 GENERAL/ORAL HISTOLOGY 2 Credit Hours

An introductory course in general and oral histology describing the morphology of cells, tissues and selected organ systems. A brief description of the embryology of the head and neck is also included.

Typically Offered: FALL

ORBI 325 INTRODUCTION TO IMMUNOLOGY 1 Credit Hour

A brief, general course on the immune system and how it relates to health and disease.

Typically Offered: SPRING

ORBI 366 GENERAL/ORAL PATHOLOGY FOR DENTAL HYGIENE 3 Credit Hours

Fundamental principles of the etiology, clinical features, histopathology, treatment and prognosis of principal oral lesions and their relationship with the general pathology disease processes.

Typically Offered: SPRING

ORBI 401 INTRODUCTION TO PHARMACOLOGY 2 Credit Hours

A study of the mechanism of action, therapeutic indications and major side effects of drugs used in human therapeutics. The medications most commonly used in dentistry are emphasized.

Typically Offered: FALL

ORBI 471 A REVIEW OF BIOMEDICAL/DENTAL SCIENCES 1 Credit Hour

A brief review of the biomedical sciences and dental materials to assist senior dental hygiene students in studying for the National Board Dental Hygiene Examination.

Typically Offered: SPRING

ORBI 491 CLINICAL ORAL PATHOLOGY 2 Credit Hours

Presentation of individual case studies of common clinical, radiographic and histopathologic material. Students learn to recognize, manage and develop a useful differential diagnosis for the lesions through classroom exercises.

Prerequisite: ORBI 366 or Permission of Course Director.

Typically Offered: FALL

ORBI 505 HUMAN ANATOMY 3 Credit Hours

A regional approach for thorough study of the upper extremity, thorax, and abdomen. The lower extremity and pelvis are minimally studied. The last two weeks of the semester is devoted to introduction of osteology of the head and neck.

Typically Offered: FALL

ORBI 506 HEAD & NECK ANATOMY 3 Credit Hours

Human Anatomy 505 continued. Thorough study of head and neck regions including an introduction to neuroanatomy.

Prerequisite: ORBI 505 or Permission of Course Director.

Typically Offered: SPRING

ORBI 514 INTRODUCTION TO IMMUNOLOGY 1 Credit Hour

A brief general course on the immune system and how it relates to health and disease.

Typically Offered: SPRING

ORBI 518 HUMAN PHYSIOLOGY 5 Credit Hours

A study of the physiology of cells and organ systems. Provides an in-depth survey of cell membrane, neural, respiratory, cardiovascular, renal, gastrointestinal, and endocrine physiology. Topics are presented to provide a basis for understanding normal and abnormal function in the human, with an emphasis on the oral cavity.

Typically Offered: SPRING

ORBI 519 GENERAL HISTOLOGY 3 Credit Hours

A lecture-laboratory course emphasizing the identification and structure of cells, tissues and organ systems.

Typically Offered: FALL

ORBI 521 CRANIOFACIAL/ORAL DEVELOPMENT AND REGENERATION 1 Credit Hour

Lectures relating to the early embryogenesis, craniofacial-oral development, morphogenesis and anomalies associated with these structures.

Typically Offered: FALL

ORBI 522 ORO-DENTAL HISTOLOGY 3 Credit Hours

Lectures relating to the oro-facial cellular and molecular biology, microscopic anatomy of the oral tissues, teeth, and glands.

Prerequisite: ORBI 519, ORBI 521, or Permission of Course Director

Typically Offered: SPRING

ORBI 525 ORAL & MEDICAL MICROBIOLOGY 4 Credit Hours

An introduction to the structure, classification, genetics, growth, nutrition staining of microorganisms that relate to host-parasite interactions during oral/mucosal and systemic infectious diseases. This will include microbial etiology, pathogenesis, anti-microbial immunity, epidemiology as well as microbial control, sterilization, disinfection, antisepsis, and chemotherapy relating to dentistry.

Typically Offered: SPRING

ORBI 535 CRITICAL THINKING I 1 Credit Hour

This is an online course that provides information and experiences for the development of the foundational knowledge and skills that are necessary for critical and integrative thinking.

Typically Offered: SPRING

ORBI 535A CRITICAL THINKING I 0 Credit Hours

This is an online course that provides information and experiences for the development of the foundational knowledge and skills that are necessary for critical and integrative thinking.

Typically Offered: FALL

ORBI 539 GENERAL PATHOLOGY I 2 Credit Hours

A study of the basic pathologic processes of cell injury, cell death and adaptations, inflammation and repair, hemodynamic disorders, shock, genetic diseases, disorders of immunity and disturbances in cell growth and neoplasia.

Typically Offered: SUMMER

ORBI 540 GENERAL PATHOLOGY II 3 Credit Hours

The course includes the study of significant diseases and tumors of the various organ systems. Special emphasis is placed on oral manifestations and implications of dental treatment.

Prerequisite: ORBI 539 or Permission of Course Director.

Typically Offered: FALL

ORBI 545 BIOCHEM DENT STUDENTS 4 Credit Hours

An introductory course in biochemistry with an overall focus on medical biochemistry. The foundational significance of biochemistry to dental and medical aspects of upcoming courses in the curriculum is strongly emphasized.

Typically Offered: FALL

ORBI 566 ORAL PATHOLOGY 3 Credit Hours

Fundamental principles of the etiology, clinical features, histopathology, treatment and prognosis of principal oral lesions.

Prerequisite: ORBI 540 or Permission of Course Director.

Typically Offered: SPRING

ORBI 581 PATIENT COMMUNICATION AND MANAGEMENT 2 Credit Hours

This course explores the dynamics of human behavior by understanding ourselves and patients, communicating with patients, and guiding patient decision making and changing behavior. This course incorporates concepts, principles, and skills from the disciplines of dentistry, communication, sociology, psychology, and practice management.

Typically Offered: FALL

ORBI 620 RESEARCH AND ETHICS 1 Credit Hour

Presentation and practice on evidence-based decision making, how to design and conduct research, normative ethics, dilemma resolution, and professionalism. Students must present a research project during the Annual Student Scientific Program held each spring semester. Course emphasizes critical thinking, self-assessment, evidence-based decision making and life-long learning.

Typically Offered: SPRING

ORBI 620A RESEARCH AND ETHICS 0 Credit Hours

Presentation and practice on evidence-based decision making, how to design and conduct research, normative ethics, dilemma resolution, and professionalism. Students must present a research project during the Annual Student Scientific Program held each spring semester. Course emphasizes critical thinking, self-assessment, evidence-based decision making and life-long learning.

Typically Offered: FALL/SP/SU

ORBI 639 GENERAL PHARMACOLOGY FOR DENTAL STUDENTS 3 Credit Hours

A didactic study of the general principles underlying the mechanisms of action, clinical uses and major adverse effects of drugs used in the diagnosis, treatment and prevention of human disease. Most major drug classes are included with an emphasis on drugs of special interest in dentistry. A primer on prescription writing is also incorporated into the course.

Typically Offered: SPRING

ORBI 648 ORAL MEDICINE 2 Credit Hours

Discussion of oral manifestations of systemic disease and medical conditions with emphasis on special management and treatment delivery considerations for the dental patient.

Typically Offered: FALL

ORBI 653 ORAL PHARMACOLOGY 1 Credit Hour

This course incorporates a discussion of the clinical pharmacology of medicinal agents commonly used in dentistry and a practicum on prescription writing. Federal and state drug legislation pertaining to dental practice is also presented.

Prerequisite: ORBI 639 or Permission of Course Director.

Typically Offered: SPRING

ORBI 691 CLINICAL ORAL PATH 2 Credit Hours

Presentation by individual case study of common and somewhat unusual clinical, radiographic and, histopathologic material. Students learn to recognize, manage and develop a useful differential diagnosis for the lesions through classroom clinical exercises.

Prerequisite: ORBI 539, 540, 566, 648, or Permission of Course Director.

Typically Offered: FALL