

OBI

Oral Biology

OBI 650 ORAL BIOLOGY FOR POSTGRADUATE DENTAL STUDENTS I. (2)

This seminar course provides a review of selected biological science topics. Emphasis is placed on the use of current literature for an in-depth study of those aspects of the subject particularly relevant to dental practice. Lecture: 32 hours. Prereq: Admission to an advanced education program of the College of Dentistry or consent of instructor.

OBI 651 ORAL BIOLOGY FOR POSTGRADUATE DENTAL STUDENTS II. (2)

This course is a continuation of OBI 650. It is a seminar that uses the scientific literature to review selected biological science topics with emphasis on those especially relevant to dental practice. Lecture: 32 hours. Prereq: OBI 650 or consent of instructor.

OBI 720 MICROBIAL STRUCTURE AND FUNCTION. (3)

Molecular basis of structure and function in unicellular microbes. Molecular genetic and structural approaches to the analysis of bacterial architecture growth, division, and differentiation. Prereq: (to reflect appropriate IBS course). (Same as MI 720 and BIO 720.)

***OBI 812 DENTAL BIOCHEMISTRY. (6)**

This is a comprehensive course in biochemistry designed to fulfill the specific needs of student dentists. Course content is generally as outlined in the American Association of Dental Schools suggested curriculum guidelines for biochemistry. Part I acquaints students with the chemical constituents of prokaryotic and eukaryotic cells; topics include the chemistry of lipids, carbohydrates, proteins, vitamins and coenzymes, and the nature of enzyme action. Part II integrates the chemical principles learned from Part I with concepts of cell dynamics, structure, function, subcellular organization, and metabolism. Topics include intermediary metabolism, bioenergetics, DNA replication, protein synthesis, and cellular regulatory and control mechanisms. Course content, where possible, is related to current concepts concerning the etiology of oral diseases, their treatment, and prevention to assist student dentists in attaining institutional goals and objectives for clinical competency. Prereq: Admission into the College of Dentistry and/or consent of course director. (Same as BCH 812.)

OBI 813 NEUROPHYSIOLOGY. (1)

The brain uses electrical signals to process all information it receives and analyzes. Individual neurons encode complex information into simple electrical signals; the meaning behind these signals is derived from the specific interconnections of neurons. The purpose of neurophysiology is to describe how the neuron produces electrical and chemical signals and illustrate how these signals are involved in the functional organization of neural circuits. This course also describes how the central nervous system analyzes and integrates the various inputs, elicits command decisions that determine the motor and/or endocrine responses. Lecture: three hours per week for five weeks. Prereq: Admission to the College of Dentistry, or consent of the Course Director. (Same as PGY 813.)

OBI 814 DENTAL HUMAN FUNCTION. (5)

This course provides in-depth instruction on the physiological mechanisms of body function from the single cell to the organism level. The course is team taught primarily by basic scientists. Teaching methodologies include didactic and Socratic lectures with some dental correlations. Prereq: Admission to the College of Dentistry. (Same as PGY 818.)

OBI 815 DENTAL GROSS ANATOMY AND EMBRYOLOGY. (6)

Study of human gross and developmental anatomy with particular emphasis on functional anatomy of the head and neck. Lecture/laboratory course, with dissection being an essential component of the laboratory portion. 140 hours. Prereq: Admission to the College of Dentistry. (Same as ANA 534.)

OBI 817 DENTAL NEUROANATOMY. (2)

Study of human dental neuroanatomy with emphasis on functional neuroanatomy of central nervous system, especially related to cranial nerves 5, 7, 9, and 10, pain, and long tracts. Lecture, one hour per week. Prereq: Admission to the College of Dentistry.

OBI 826 DENTAL PHARMACOLOGY AND THERAPEUTICS. (4)

This course will provide students with a fundamental understanding of the pharmacology and therapeutic uses of drugs commonly used by their patients and in their practice. Prereq: OBI 812 and OBI 814. (Same as PHA 822.)

OBI 828 IMMUNITY, INFECTION AND DISEASE FOR THE STUDENT DENTIST. (6)

The course provides basic concepts of immunology and bacterial, viral, fungal and protozoal biology. It focuses on mechanisms of human immunity, immunologically mediated disease, and pathogenesis in infectious disease. The material covered includes relevant pathology associated with both immunological and infectious diseases, and a summary of infectious diseases from a clinical perspective. Prereq: Enrolled in the DMD curriculum.

OBI

Oral Biology

OBI 829 ORAL BIOLOGY.

(2)

This course will enable the dental student to apply basic oral biology principles to the contemporary diagnosis and treatment of oral disease. Oral biology is the study of the biologic sciences and their clinical correlates that pertain to the mouth and the contiguous tissues in health and disease. Major oral systems are studied at the complete, cellular, and molecular levels with emphasis on important clinical problems affecting both hard and soft tissues. Lecture, 34 hours. Prereq: ANA 530, OBI 812, OBI 814, CDS 820 or consent of instructor.

***OBI 836 DENTAL PHARMACOLOGY.**

(3)

This course will provide students of dentistry with a fundamental understanding of the pharmacology and the therapeutic uses of drugs commonly used in their practice or by their patients. This course will reinforce topics discussed in CDS 821 (Local Anesthesia); in addition, the course will integrate with ODM 830 (Mngmnt of Med Compromised Patient) and provide focused preparation for CDS 831 (Conscious Sedation). Prereq: OBI 812, OBI 814, CDS 821.