

# ORAL BIOLOGY (OBIO)

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## **OBIO 818 HUMAN PHYSIOLOGY 5 Credit Hours**

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

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 840 CRANIOFACIAL GRWTH&DEV 1 Credit Hour**

An advanced lecture and seminar study of prenatal and postnatal growth and development of the head with special emphasis on osteology, prenatal and postnatal factors influencing growth, and clinical management of craniofacial growth disorders.

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 841 CRANIOFACIAL GRWTH&DEV 2 Credit Hours**

An advanced lecture and seminar study of prenatal and postnatal growth and development of the head with special emphasis on osteology, prenatal and postnatal factors influencing growth, and clinical management of craniofacial growth disorders.

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 849 BIOPHYSICAL PRINCIP I 1 Credit Hour**

An advanced study of the construction, application, and operations of orthodontic appliances with special consideration given to the physiological reaction of oral and dental tissues to the forces involved.

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 850 BIOPHYSICAL PRINCIP II 2 Credit Hours**

An advanced study of the construction, application, and operations of orthodontic appliances with special consideration given to the physiological reaction of oral and dental tissues to the forces involved.

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 851 ADV DENTAL BIOMATERIAL 3 Credit Hours**

Advanced topics in biomaterials science and their application to clinical dentistry and dental specialty practice. Topics include Hooke's Law, viscoelasticity, structure-property relationships of biological materials, failure and strengthening mechanisms of metals, ceramics, polymers, composites and elastomers.

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 855 ADV ORAL BIOLOGY 3 Credit Hours**

A didactic study of the development, molecular and cell biology, histology and physiology of orofacial structures. Oral microbial ecology and resultant diseases, dental asepsis and OSHA are also discussed.

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 860 ADVANCED ANATOMY 2 Credit Hours**

Studies of general and special gross anatomy, embryology and neuroanatomy of the human body with emphasis on the head and neck.

Credit Hour Breakdown: \*\*Contact Hours (weekly): Lecture-2 Hours; Out of Class/Hmwk-2-4 Hours

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 862 ADV DENTAL PHARM 1 Credit Hour**

An advanced didactic study of the pharmacological principles of drug action at the cellular and organ levels. Emphasis is placed on drugs utilized in dentistry.

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 866 IMM/MICROBIO ORAL INFE 3 Credit Hours**

A study of the immune system, secretory immunology, immunopathology, and resistance mechanisms of the human body. Pathogenic microbes related to oral diseases and dental asepsis, their pathogenesis and epidemiology are discussed.

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 870 ADV PERIODONTOLOGY I 2 Credit Hours**

An advanced study of etiology, diagnosis, and treatment of periodontal diseases.

Prerequisite: Permission of instructor.

Typically Offered: FALL

## **OBIO 871 ADV PERIODONTOLOGY II 2 Credit Hours**

An advanced study of etiology, diagnosis, and treatment of periodontal diseases.

Prerequisite: Permission of instructor.

Typically Offered: SPRING

## **OBIO 895 ADV ORAL PATHOLOGY 2 Credit Hours**

An advanced study of oral lesions resulting from developmental, inflammatory, metabolic and neoplastic changes.

Prerequisite: DDS, DMD, or permission of instructor.

Typically Offered: FALL

## **OBIO 896 RSCH OTHER THAN THESIS 0 Credit Hours**

Student research that is clearly distinct from ongoing or planned thesis/dissertation work, or research/lab rotations performed prior to selecting a permanent advisor or supervisor. prereq: Permission of instructor

Typically Offered: FALL/SP/SU

## **OBIO 970 SEMINAR 1 Credit Hour**

Graduate student-led discussions of their own research and/or analysis of recent publications in the biomedical sciences. prereq: Permission of Instructor

Typically Offered: SPRING

## **OBIO 992 SPECIAL TOPICS 1-3 Credit Hours**

Presented at intervals depending upon the interest of the faculty or the request of students. A course description with its prerequisites is announced at the time the course is offered.

Prerequisite: Permission of instructor

Typically Offered: FALL/SP/SU