Oregon Health & Science University
School of Dentistry

Course Syllabus – First Year Winter Term

AN 613 General Histology

Cells are the functional units of living tissue, and their study provides a useful central theme in the biological sciences. In this course, we will emphasize tissue organization at the cellular level as seen in the light microscope. Sixteen lectures will introduce you to each of the major tissue types and organ systems found in the human body. Two-hour microscope-based laboratory exercises will accompany each lecture. This material will provide a visual framework on which hopefully you can begin to integrate the related physiology, biochemistry, and molecular biology of your other basic science courses.

BCH 612 Biochemistry II - Metabolism & Regulation

BCH 612 is the second part of a two term course designed to provide the students with a basic understanding of biologic chemistry essential to prepare them for Microbiology, Pharmacology and Nutrition as well as an understanding of cell physiology required for successful completion of Oral Pathology.

DM 612 Introduction to Dental Materials II

This course is the second in a series of three, one-credit hour courses. This course, as well as the one preceding and the subsequent course (DM611-Fall and DM613-Spring) emphasizes basic material science theories as they relate to the use of metals, ceramics, and polymers in dentistry. The primary purposes of this course are to provide the student with knowledge of: 1) the general nature and composition of dental materials, 2) the physical properties of materials used in dentistry and medicine, and 3) the indications for and proper use of dental materials. This course is integrated with the pre-clinic course in Prosthodontics (PROS 612). The manipulation of the various materials are emphasized in those courses, but are introduced in this course.

PER 611 Introduction to Periodontology

This course will provide the opportunity to learn the basic principles of medical history review, periodontal data collection, risk assessment, and periodontal therapies available to treat the patient. The course will prepare students for laboratory and clinical application of these principles at a novice level.

PER 612 Periodontology Instrumentation I

This course is the beginning of a two term sequence designed to present the student with the opportunity to learn the application of the basic principles of periodontal data collection, prevention, and non-surgical periodontal instrumentation on a typodont followed by application on a student partner. Upon completion of the course, students will be prepared to begin clinical application of periodontal data collection and periodontal instrumentation at a novice level in PER721/722/723.

PHY 612 Physiology I

Physiology 612 covers the topics of cellular physiology including membrane function, basic neurophysiology, and pulmonary/cardiovascular physiology. This course prepares the student for future study of pharmacology and pathology related to these systems. There is an emphasis on developing critical thinking skills and the integrative nature of physiology relating one physiologic system to others.

REST 612 Fixed Prosthodontic Technique II

This course is a continuation of Pros 611 which continues in tooth preparation and beginning dental laboratory skills. This course is the second of a series that continues through the first and second dental year program (Pros 612, Pros 613, Pros 621, Pros 622, Pros 623)

RO 612 Principles of Oral Radiology I

This course is the first of two courses that will prepare the student in the basic principles of radiology that are required of all radiation workers using x-radiation. It is an introductory didactic course that will begin the process of providing the knowledge and understanding of radiology that, together with a concurrent laboratory course (RO 615), subsequent didactic courses (RO 613, RO 623), and clinic courses (RO 730, RO 740), will train the student to become a competent operator of dental x-ray machines with the ability to produce the highest quality diagnostic radiographs with the minimum amount of radiation.

RO 615 Oral Radiographic Technique Lec/Lab

This laboratory course supports and amplifies those principles, techniques, and procedures covered in the didactic courses -- RO 612/613 Principles of Oral Radiology I & II. DXTTR manikins are utilized in this laboratory training with development of skills using primarily a paralleling, film-size collimation, intraoral techniques. Emphasis is given to exposing, processing, mounting, critiquing, and evaluating intraoral periapical and bitewing radiographs. Time is also used to teach interpretation of radiographic landmarks & dental materials, film errors & corrections, localization techniques, occlusal projections, pediatric techniques, bisecting angle technique, and demonstrations of alternate techniques for various difficult cases.