

# HUMAN HEALTH AND DISEASE (DHHD)

## Courses

### **DHHD 5001. Foundations of Tooth Development, Oral Health and Dental Disease. 3.5 Credit Hours.**

HHD 1 (Foundations of Tooth Development, Oral Health and Dental Disease) provides dental students with foundational knowledge in tooth development, cariology, and oral health. Students learn about basic biology and the growth and development of the oral cavity and explore genetic and other abnormalities in tooth development. The scientific background of the epidemiology, microbiology, risk factors, prevention and treatment of dental caries is presented. Students learn strategies to reduce oral disease in patients, including behavioral approaches, and learn the impact of nutrition on oral health. Finally, risk-assessment and risk-based prevention for oral diseases are introduced. Registration for this course requires to be enrolled as a DS1 student.

### **DHHD 5002. Craniofacial Complex. 6.5 Credit Hours.**

The overall goal of HHD 2 (Craniofacial Complex) is to insure that the student develops a solid foundation and fundamental understanding of the basic sciences related to the head and neck regions of the body. This course integrates basic concepts of human macroscopic and microscopic anatomy, neuroscience, embryology, physiology, growth and development, pharmacology and radiology of the head and neck as they relate to the clinical practice of dentistry. Registration for this course requires to be enrolled as a DS1 student. Course Fees: Human Materials: \$1,246 Gross Anatomy Lab: \$30.

### **DHHD 5003. Periodontium and Pulp. 4.5 Credit Hours.**

HHD 3 (Periodontium and Pulp) provides students with an overview of the development of the periodontium and dental pulp. Students learn foundational principles of immunology, inflammation, and bacteriology, which are essential for comprehension of periodontal and endodontic disease processes. The appearance and functions of clinically normal tissues is contrasted to tissues affected by disease. Students learn basic therapies for periodontal and endodontic conditions and management of patients typically treated in a general practice. Students learn periodontal and pulpal diagnostic methods and diagnoses, non-surgical treatment of disease, and assessment of treatment outcomes. Treatment planning fundamentals are emphasized. Students gain the knowledge, skills, and values necessary to begin management of patients with these diseases including treatment or appropriate referral. Registration for this course requires to be enrolled as a DS1 student.

### **DHHD 5004. Biological Foundations. 4.5 Credit Hours.**

HHD 4 (Biological Foundations) introduces first year dental students to the fundamental biologic principles and processes that influence wellness and how and why people get sick. These principles provide a platform for exploration of normal and abnormal functions of human organ systems during the second year of the curriculum. The students' learning process begins with investigation of basic cell structure and physiology, which sets the stage for learning the mechanisms of reversible and irreversible injury to cells, tissues, and organs, and factors that promote and influence tissue healing. Students then explore a variety of important contributors to health and disease including hemodynamics, principles and mechanisms of immunology, processes of infection and inflammation, genetic influences on human health, and the causes and modulators of abnormal cell growth neoplasia. The course concludes with review of the aging process and age-linked disorders. Registration for this course requires to be enrolled as a DS1 student.

### **DHHD 6005. Cardiovascular and Pulmonary Systems. 3.5 Credit Hours.**

During DHHD 6005 (Cardiovascular and Pulmonary Systems), second year dental students learn the cardiovascular and pulmonary problems that are related and relevant to dental care. Emphasis is placed on the normal physiological functions of the heart and the lung, the pathophysiological basis of concurrent cardiac and/or respiratory diseases, and the usual medical management, including pharmacological therapies, for these conditions. Students learn the implications of pathophysiological changes and associated medical managements for dental care, and the appropriate dental management considerations for patients with cardiac and/or respiratory diseases. Successful completion of all DS I courses is required to enroll in this course.

### **DHHD 6006. Renal, Gastrointestinal & Liver. 2.5 Credit Hours.**

During DHHD 6006 (Renal, Gastrointestinal and Liver), second year dental students learn the disorders in these systems that are related and relevant to dental care. Emphasis is placed on the normal physiological functions of the kidneys, components of the gastrointestinal system and the liver and gall bladder, the pathophysiological basis of diseases and abnormalities that occur in these systems, and contemporary medical management, including pharmacological therapies, for these conditions. Students learn the implications of pathophysiological changes and associated medical management for dental care, and the appropriate dental management considerations for patients with renal, gastrointestinal, liver and gall bladder diseases. Successful Completion of all DS I courses is required to enroll in this course.

### **DHHD 6007. Hematopoietic / Lymphoid and Musculoskeletal Systems; Orofacial Pain. 3 Credit Hours.**

During DHHD 6007 (Hematopoietic / Lymphoid and Musculoskeletal Systems), second year dental students learn the disorders in these systems that are related and relevant to dental care. Emphasis is placed on the normal physiological functions of these systems, the pathophysiological basis of diseases and abnormalities that occur in these systems, and contemporary medical management, including pharmacological therapies, for these conditions. Students learn the implications of pathophysiological changes and associated medical management for dental care, and the appropriate dental management considerations for patients with hematopoietic / lymphoid and musculoskeletal diseases and disorders. DHHD 6007 concludes with an Orofacial Pain section where students learn to evaluate patients' pain and determine the best approach for treating it. Successful Completion of all DS I courses is required to enroll in this course.

### **DHHD 6008. Endocrine, Reproductive, Nervous System and Mental Health. 4 Credit Hours.**

DHHD 6008 (Endocrine, Reproductive, Nervous System, Mental Health) provides students with an overview of development of the endocrine, reproductive, and nervous systems with an emphasis on the basic structure and function of these organ systems. The clinical appearance of common diseases, along with the medical and dental management of disorders seen in these organ systems, will be reviewed. Specific sexually transmitted disease with oral/dental implications will be presented. The course concludes with a discussion of the epidemiology and medical management of patients with common mental health disorders. Case scenarios are used to present dental management considerations for endocrine, reproductive, and nervous system disorders, sexually transmitted diseases, and mental health disorders. Successful completion of all DS I courses is required to enroll in this course.

**DHHD 6009. Advanced Head & Neck/Oral. 3.5 Credit Hours.**

DHHD 6009 (Advanced Head & Neck/Oral) provides students with an overview of the basic structure and function of salivary glands, mucosa, and skin. The clinical appearance of common diseases and tumors, along with the medical management of disorders seen in these tissues, will be reviewed. A discussion of common odontogenic cysts and tumors will be discussed. Case exercises will be used to present dental management considerations for salivary gland diseases, soft tissue tumors, mucosa and skin disorders, and odontogenic cysts and tumors. Successful completion of all DS I courses is required to enroll in this course.

**DHHD 6010. Patient-Centered Oral Health Care: Behavioral, Ethical, and Evidence-Based Dentistry. 3 Credit Hours.**

DHHD 6010 (Patient-Centered Oral Health Care) provides dental students with learning experiences in important components of professional practice that support students' capacity to deliver evidence-based, ethically sound, and patient-centered oral health care. Specifically, dental students explore ethical influences on dental practice, learn and apply foundational principles of evidence-based clinical decision-making, and learn strategies that promote patient-centered and culturally sensitive health care. Students also learn population-based strategies for promoting oral health. Successful Completion of all DS I courses is required to enroll in this course.