# University of Colorado Anschutz Medical Campus School of Dental Medicine 2018-2019 Course Book

# **Dental Program**

(The Dental curriculum is subject to change without notice.)

# FIRST YEAR FALL SEMESTER

### **DSBS 5502 Microanatomy**

Variable 0.1-5.0 cr.

This course will cover initially the structure and function of cells and tissues and progress to study the normal structural features of the organs of the body, as the basis for understanding pathologic conditions and disturbances of function.

#### **DSBS 5504 Human Gross Anatomy**

Variable 0.1-10.0 cr.

Dental Anatomy covers the gross- and neuro-anatomy of the back, upper extremity, thorax, abdomen, and head and neck, and the embryology of the head and neck. Students will dissect cadavers and study computer generated cross-sections and reconstructions.

## **DSBS 5505 Immunology**

Variable 0.1-5.0 cr.

Basic information about the immune system; how it functions in the maintenance of health and how it can cause tissue injury.

## **DSBS 5506 Oral Histology**

Variable 0.1-5.0 cr.

This course will cover the details of tooth development and the histological features of the oral tissues, to include: salivary glands, oral epithelia, oral lymphatic tissue, enamel, dentin, cementum, oral bone and the periodontal ligament.

#### **DSBS 5507 Molecular Biology**

Variable 0.1-5.0 cr.

This course provides in-depth consideration of biochemical and cell signaling mechanisms that control protein synthesis, gene expression and cellular function. The topics covered include gene regulation, mRNA translation, cell metabolism and diverse receptor mediated signaling pathways.

## **DSBS 5509 Dental Neurosciences**

Variable 0.1-5.0 cr.

The purpose of this course is to provide the student with core foundations in human neuroanatomy to prepare the student for investigation of the gross anatomy of the head and neck. The course will explore how the nervous system functions under conditions of normal health, as well as disease.

# **DSCD 5501 Community Engagement 1**

Variable 0.1-5.0 cr.

This course will introduce students to an array of topics that will jump-start the dental school experience. In addition to didactic work, students will visit off-campus care delivery settings, especially those serving under-served or special populations. A major focus will be risk-based, prevention using a management of disease approach.

## **DSCD 5855 Independent Study**

Variable 0.1-5.0 cr.

Elective course assigned as needed for independent assignments.

# **DSRE 5001 Introduction to Dentistry**

Variable 0.1-5.0 cr.

To introduce the beginning dental students to the program with an overview of dental concepts and procedures.

## **DSRE 5500 Dental Anatomy**

Variable 0.1-5.0 cr.

Anatomical characteristics of the primary and permanent teeth in the human dentition, intra-arch relationships are considered in detail.

## **DSRE 5501 Dental Anatomy Laboratory**

Variable 0.1-5.0 cr.

Waxing full crowns of each tooth type to correct anatomical form, emphasizing intra-arch relationships.

# **DSRE 5504 Dental Materials Science 1**

Variable 0.1-5.0 cr.

Basic information about materials science includes physical, chemical, mechanical, and biological properties. This information provides the background for the study of specific materials used in dentistry.

# DSRE 5520 Introduction to Clinical Dentistry 1

Variable 0.1-5.0 cr.

Provide students with the foundational knowledge to learn/work in the school's clinical environment. Students will develop and demonstrate a competent understanding of HIPAA and the school's Infection Control rules/policies. Students will also develop an understanding of the role quality and safety in patient care and the use of axiUm.

# **DSRE 5544 Cariology 1**

Variable 0.1-5.0 cr.

The course is intended to provide the basic science information about cariogenicity of plaque, caries etiology, nutrition, microbiological basis, patterns of progression and its relation to design for surgical treatment.

# FIRST YEAR SPRING SEMESTER

## **DSBS 5500 Craniofacial Biology and Embryology**

Variable 0.1-5.0 cr.

Deals with the chemical basis of biological organization and function. Emphasis is given to topics most directly relevant to

oral health and disease.

### **DSBS 5503 Microbiology**

Variable 0.1-5.0 cr.

This course will review basic principles of general microbiology and present fundamentals of medical microbiology relevant to microorganisms of the oral cavity and sources of systemic infections with oral manifestations.

**DSBS 5508 Physiology** 

Variable 0.1-5.0 cr.

Deals with fundamentals of human physiology from basic cellular processes, such as membrane transport, to the organization and control of organ systems.

## **DSBS 5514 General Pathology**

Variable 0.1-5.0 cr.

This course consists of lectures, laboratories, and discussions encompassing several basic biologic processes which interact to produce disease. These processes are considered at several levels of biologic organization ranging from clinical manifestations to molecular mechanisms.

# **DSCD 5866 Independent Study**

Variable 0.1-5.0 cr.

Elective course assigned as needed for independent assignments.

### **DSOD 5502 Oral Radiology**

Variable 0.1-5.0 cr.

Designed to introduce the students to basic radiology and to provide them with the necessary practical skills in preparation for clinical dentistry.

## **DSOD 5503 Oral Radiology Laboratory**

Variable 0.1-5.0 cr.

The laboratory is designed to provide students with the necessary practical skills in preparation for clinical dentistry.

## **DSOP 5504 Principles of Operative Dentistry Direct Restoration 1**

Variable 0.1-5.0 cr.

This course is designed to teach students the principles of operative dentistry and the direct restoration of teeth from a problem specific approach.

## **DSOP 5505 Principles of Operative Dentistry Direct Restoration 1 Lab**

Variable 0.1-5.0 cr.

This course integrates the principles of operative dentistry and direct restoration in a case-based laboratory environment.

### **DSRE 5506 Occlusion 1**

Variable 0.1-5.0 cr.

This introductory course in articulation and occlusion deals with the principles of mandibular movement and reproducing these movements on an articulator. The various types of occlusions are considered as well as different treatment theories pertaining to occlusal philosophies.

## **DSRE 5507 Occlusion 1 Laboratory**

Variable 0.1-5.0 cr.

The laboratory course includes waxing opposing dentitions to proper occlusion, obtaining intra-oral records on patient, and mounting patient models on an articulator.

# **DSRE 5521 Introduction to Clinical Dentistry 2**

Variable 0.1-5.0 cr.

This course will continue to prepare students for clinic. Topics covered provide a foundation for the practice of dentistry including Oral Health Literacy, Resiliency, Ergonomics and Training in 4-handed Dentistry including a Clinical Assist Session.

# **IPED 5002**

This course develops core competencies in teamwork and collaboration, values and ethics, and quality and safety for firstyear health professions students. The course will be taught in a team-based format requiring individual preparation before each session followed by the application of that learning in through team-based activities.

## FIRST YEAR. Summer Semester

## **DSBS 5516 Organ Pathology**

Variable 0.1-5.0 cr.

This course, consisting of lectures and laboratory conferences, is designed to assist the student in learning the etiology, pathogenesis, and the changes in structure and function of specific disease entities on selected organ systems pertinent to the practice of dentistry.

## **DSCD 5877 Independent Study**

Variable 0.1-5.0 cr.

Elective course assigned as needed for independent assignments.

## **DSOD 5500 Health Data Collection 1**

Variable 0.1-5.0 cr.

Designed to introduce the student to the problem-oriented dental record and to a systems approach to the collection of health data. Includes both lecture and clinical phases.

## **DSOP 5506 Principles of Operative Dentistry Direct Restoration 2**

Variable 0.1-5.0 cr.

Continuation of Principles of Operative Dentistry Direct Restoration 1. Designed to teach operative dentistry from a problem specific approach.

## **DSOP 5507 Principles of Operative Dentistry Direct Restoration 2 Lab**

Variable 0.1-5.0 cr.

Continuation of Principles of Operative Dentistry Direct Restoration 1 Lab. Designed to teach operative dentistry from a problem specific approach.

### **DSPE 5500 Periodontics 1**

#### Variable 0.1-5.0 cr.

This course is designed to make the student familiar with the normal periodontium, as well as the epidemiology, etiology and pathogenesis of periodontal disease.

## **DSRE 5508 Indirect Single Tooth Restoration 1**

Variable 0.1-5.0 cr.

This course in restorative dentistry teaches the treatment of lesions and defects of single teeth using indirect restorative principles and techniques. Cast gold is the restorative material taught in this course.

## **DSRE 5522 Introduction to Clinical Dentistry 3**

Variable 0.1-5.0 cr.

This course will continue to prepare students for the clinic. Topics covered include a review and testing of head/neck and intraoral anatomy knowledge, clinical application of this knowledge, an all-day 8 hour Kaplan NBDE Part I practice exam, 4 handed dentistry, clinical assist session and introduction to clinic.

### **SECOND YEAR, Fall Semester**

# **DSBS 6600 Pharmacology**

Variable 0.1-10.0 cr.

Intensive study of drugs used in dental practice with emphasis on the basic principles of drug action. Lectures and clinical correlations are employed.

# **DSCD 6622 Managing Your Student Practice 1**

Variable 0.1-5.0 cr.

This course will address the University of Colorado School of Dental Medicine Clinic Policy and Procedure Manual and Dental Clinic Education Manual to assist each student in learning to manage their dental school practice within the CU Dental Teams Model, making decisions that satisfy legal, society and ethical principles, to provide care for all patients and improve oral health. The course will also address issues in communicating with the staff and faculty as well as understanding regulatory requirement of a dental practice.

## **DSCD 6855 Independent Study**

Variable 0.1-5.0 cr.

Elective course assigned as needed for independent assignments.

# **DSON 6610 Oral Pathology 1**

Variable 0.1-5.0 cr.

This course is a comprehensive review of the fundamental mechanisms and general principles of oral pathology, including developmental disturbances of oral and para-oral structures, benign and malignant tumors and cysts.

# **DSOT 6610 Orthodontics 1**

Variable 0.1-5.0 cr.

Early physical and emotional development of the child is presented, emphasizing prenatal and neonatal influences on the craniofacial complex. The etiology and classification of malocclusion along with the development of disturbances of hard and soft tissues are introduced.

# **DSPE 6604 Periodontics 2**

Variable 0.1-5.0 cr.

This course deals with the prevention, treatment and control of periodontal disease. Currently accepted therapies are discussed in detail. In addition, the student is taught how to evaluate new therapies which periodically become available.

## **DSPE 6605 Periodontics 2 Laboratory**

Variable 0.1-5.0 cr.

This course runs parallel with Periodontics 2. It is devoted to teaching the clinical skills necessary for the practice of periodontics within the context of a general dental practice.

## **DSRE 6600 Transition Clinic 1**

Variable 0.1-5.0 cr.

This course will provide second year dental students with methods and techniques for diagnosis, treatment planning, and record keeping for general dental practice and will also serve as a platform to train students in the correct use of the Axium software.

## **DSRE 6606 Indirect Single Tooth Restoration 2**

Variable 0.1-5.0 cr.

This course is the completion of the continuum of courses related to single tooth indirect tooth restorations. The discussion of cast metal restorations (inlay, onlay, crown) introduced in ISTR 1 will be continued. Additionally, introduction to ceramo-metal, all-ceramic, and partial veneer restorations will occur, with additional strategies for provisionalization. Restoration of endodontically treated teeth will be introduced. Particular emphasis will be placed on treatment planning and treatment choices

# **DSRE 6607 Indirect Single Tooth Restoration 2 Laboratory**

Variable 0.1-5.0 cr.

This course is the completion of the continuum of courses related to single tooth indirect tooth restorations. This course teaches fundamental concepts, preparation, provisionalization, and restoration of single teeth with full and partial veneer restorations. Fundamental concepts, preparation and restoration of single teeth with cast gold, milled and pressed ceramics, and ceramo-metal materials.

# **DSRP 6600 Combined Removable Prosthodontics**

Variable 0.1-5.0 cr.

Acquaints the student with principles of removable partial and complete prosthodontics. Includes principles of partial denture design and fabrication as they relate to preventive dentistry and diagnosis/treatment of endentulous patients. Problems of treating geriatric patients are discussed.

# **DSRP 6601 Combined Removable Prosthodontics Lab**

Variable 0.1-5.0 cr.

Laboratory exercises following lectures of principles of partial and complete removable prosthodontics. Students instructed in impressions, mounting casts, arrangement of artificial teeth, final waxing and familiarized with necessary steps in completing mandibular removable partial denture,

### **DSSD 6612 Orofacial Pain**

Variable 0.1-5.0 cr.

This course is designed to acquaint the student with the evaluation, diagnosis, management, and pathology of the temporomandibular joint. Emphasis is on the multidisciplinary nature of treating disorders of the TMJ.

## IPED 6001 Interprofessional Education and Development II

1.0 cr.

This course develops core competencies in teamwork and collaboration, values and ethics, and quality and safety for first-year health professions students. The course will be taught in a team-based format requiring individual preparation before each session followed by the application of that learning in through team-based activities.

# SECOND YEAR, Spring Semester

## **DSCD 6623 Managing Your Student Practice 2**

Variable 0.1-5.0 cr.

This course will address the University of Colorado School of Dental Medicine Clinic Policy and Procedure Manual and Dental Clinic Education Manual to assist each student in learning to manage their dental school practice within the CU Dental Teams Model, making decisions that satisfy legal, society and ethical principles, to provide care for all patients and improve oral health. The course will also address issues in communicating with the staff and faculty as well as understanding regulatory requirement of a dental practice.

### **DSCD 6866 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments

#### **DSEN 6610 Endodontics 1 Lecture**

Variable 0.1-5.0 cr.

Course is an introduction to basic endodontics therapy. The philosophy of endodontics treatment and therapeutic techniques is discussed. Mechanisms of inflammation and repair are related to decisions in clinical practice.

## **DSEN 6611 Endodontics 1 Lab**

Variable 0.1-5.0 cr.

This is a laboratory course in basic endodontic techniques that utilizes simulated human teeth as models for providing clinical treatment.

## **DSFD 6610 Fixed Prosthodontics**

Variable 0.1-5.0 cr.

This course as well as the laboratory section (DSFD 6611) will explore the treatment of partial edentulism, specifically tooth replacement with fixed prostheses. This course outline is to be used as a study guide as well as a schedule for this course in pre-clinical Fixed Prosthodontics. Successful completion of ISTR 2 (DSRE 6606-6607) is prerequisite as you are expected to have a good understanding of the terminology and operative procedures learned in this course.

## **DSFD 6611 Fixed Prosthodontics Laboratory**

Variable 0.1-5.0 cr.

This course as well as the didactic section (DSFD 6610) will explore the treatment of partial edentulism, specifically tooth replacement with fixed prostheses. This course outline is to be used as a study guide as well as a schedule for this course in pre-clinical Fixed Prosthodontics. Successful completion of ISTR 2 (DSRE 6606-6607) is prerequisite as you are expected to have a good understanding of the terminology and operative procedures learned in this course. The specific course objectives for this course are listed at the end of the course outline.

# **DSON 6612 Oral Pathology 2**

Variable 0.1-5.0 cr.

This course is a continuation of Oral Pathology 1.

# **DSOP 6600 Pre-Clinical Operative Dentistry Workshop**

Variable 0.1-5.0 cr.

Practical restorative exercises in extracted natural teeth.

## **DSPD 6620 Pediatric Dentistry 1**

Variable 0.1-5.0 cr.

Basic principles of clinical diagnosis and treatment of the child patient are introduced. Developmental aspects of the formation of the craniofacial complex are applied to clinical management of space maintenance, pupal, restorative, and behavior management problems.

# **DSPE 6606 Periodontics 2 Laboratory**

Variable 0.1-5.0 cr.

This course runs parallel with Periodontics 2. It is devoted to teaching the clinical skills necessary for the practice of periodontics within the context of a general dental practice.

## **DSRE 6601 Transition Clinic 2**

Variable 0.1-5.0 cr.

This course will provide second year dental students with method and techniques for diagnosis, treatment planning, and record keeping for general dental practice and will also serve as a platform to train students in the correct use of Axium software. Second year dental students will begin to see patients for simple oral diagnosis appointments, periodic oral evaluations, and basic operative procedures. Students will be paired throughout the Transition Clinic. While one student serves as the assistant, the other will act as the operator. Each student should have equal opportunity to act as both the assistant and the operator. Patients are scheduled by the patient care coordinators.

## **DSRE 6608 Dental Materials Science 2**

Variable 0.1-5.0 cr.

Course introduces materials used in the practice of dentistry. Their chemistry, physical properties, and biological interaction are discussed as well as their advantages, disadvantages, and methods of clinical use.

## **DSRE 6609 Treatment Planning**

Variable 0.1-5.0 cr.

Course will bridge the concepts learned in oral diagnosis, periodontics, restorative dentistry, radiology and transition clinic

to help the students assimilate clinical information into clinically acceptable treatment plans that best meet patient needs.

### **DSRE 6611 Occlusion II Lecture 1**

Variable 0.1-5.0 cr.

Theory and indications treating mandibular instability with splints and equilibration. The etiology, diagnosis and treatment of occlusal trauma and mandibular dysfunction are introduced.

### **DSRE 6613 Occlusion 2 Laboratory 1**

Variable 0.1-5.0 cr.

The laboratory portion of this course includes fabrication of different splint types. It also introduces the principles of equilibration and applying these principles to models.

## DSRE 6644 Cariology 2

Variable 0.1-5.0 cr.

The course provides didactic instruction and exercises in identifying caries, learning and evaluating detection methods. As well, the course will include identifying and correlating factors that contribute to caries, and developing programs for prevention and management to reduce identified factors.

### **DSSD 6600 Clinical Dental Pharmacology**

Variable 0.1-5.0 cr.

Integration of basic drug mechanisms with fundamentals of clinical pharmacology and patient care.

#### DSSD 6604 Pain Control 1 (Local Anesthesia)

Variable 0.1-5.0 cr.

The anatomy of the nerve supply to the teeth and associated structures is covered. The techniques for administration of local anesthesia to the maxilla and mandible are demonstrated by the faculty and performed by the student.

## **DSSD 6608 Prevention and Management of Medical Emergencies**

Variable 0.1-5.0 cr.

The prevention, diagnosis, and management of medical emergencies are presented.

### **SECOND YEAR, Summer Semester**

## **DSCD 6877 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

### **DSEN 6612 Endodontics 2 Lecture**

Variable 0.1-5.0 cr.

Course is an introduction to basic endodontics therapy. The philosophy of endodontics treatment and therapeutic techniques is discussed. Mechanisms of inflammation and repair are related to decisions in clinical practice.

# **DSEN 6613 Endodontics 2 Lab**

Variable 0.1-5.0 cr.

This is a laboratory course in basic endodontic techniques that utilizes simulated human teeth as models for providing clinical treatment.

## **DSFD 6031 Clinical Fixed Prosthodontics 1**

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

Variable 0.1-5.0 cr.

**DSOD 6031 Clinical Oral Diagnosis 1** 

Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

This course will present topics on operative dentistry relative to clinic patient care. Current materials and techniques as well as a review of fundamental concepts of operative dentistry will be taught.

## **DSOP 6031 Clinical Operative Dentistry 1**

**DSOP 6610 Operative Dentistry Seminar** 

Variable .01-5.0 cr.

Clinical rotation in operative dentistry.

## **DSOS 6031 Oral and Maxillofacial Surgery**

Variable 0.1-5.0 cr.

The diagnosis and treatment of oral and maxillofacial surgical problems including techniques for extraction of teeth alveoplasty, biopsy, management of infection, treatment of maxillary and mandibular fractures, and suturing techniques.

# DSPD 6630 Pediatric Dentistry 2

Variable 0.1-5.0 cr.

Introductory courses in pediatric dentistry providing foundational knowledge for subsequent participation in pediatric dentistry clinical rotations. Laboratory and didactic components provide knowledge and skills for restorative treatment during the primary, transitional, and young permanent dentition phases.

## **DSPE 6031 Clinical Periodontics 1**

Variable 0.1-5.0 cr.

Clinical rotation in periodontics.

## **DSPE 6610 Periodontics 3**

Variable 0.1-5.0 cr.

Course is devoted to making the student familiar with the surgical management of periodontal disease. The indications and rationale for resection, reconstructive and mucogingival procedures are discussed.

## **DSRE 6604 Esthetic Dentistry**

Variable 0.1-5.0 cr.

This course is designed to present information to students about those clinical dentistry procedures or concepts which are performed primarily to enhance dental esthetics.

### **DSRE 6612 Occlusion II Lecture 2**

Variable 0.1-5.0 cr.

Theory and indications treating mandibular instability with splints and equilibration. The etiology, diagnosis and treatment of occlusal trauma and mandibular dysfunction are introduced.

## **DSRE 6615 Comprehensive Patient Care Clinic A**

Variable 0.1-5.0 cr.

An introductory clinic for dental students. Students will provide comprehensive dental care refining technical skills, learning patient management skills in a large group practice setting

## **DSRE 6616 Occlusion II Laboratory 2**

Variable 0.1-5.0 cr.

The laboratory portion of this course includes fabrication of different splint types. It also introduces the principles of equilibration and applying these principles to models.

# **DSRP 6031 Clinical Removable Prosthodontics 1**

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

### **DSSD 6610 Pain Control 2 (Nitrous Oxide Analgesia)**

Variable 0.1-5.0 cr.

Pharmacological indications and contraindications and prevention and treatment of complications relating to use of nitrous oxide is presented.

## THIRD YEAR, Fall Semester

## **DSCD 7704 Community Health Education Practicum**

Variable 0.1-5.0 cr.

This course will provide students with guidance in completing the following Applied Dentistry Competency: Plan and implement a community health education intervention.

### **DSCD 7705 Interprofessional Education Development**

Variable 0.1-5.0 cr.

This course will establish, teach and evaluate campus-wide student competencies in teamwork, collaborative interprofessional practice and quality and safety, focusing on underserved populations. Included is an exploration of roles of the different professions involved, and skills building in teamwork/communication.

## **DSCD 7720 Behavioral Health, Gerontology and Geriatrics**

Variable 0.1-5.0 cr.

Developing foundational knowledge in mental health/illness (mental health literacy), geriatrics and care for adult patients with developmental disabilities. Additionally at enhancing skills in building rapport/motivating patients for adoption of health behaviors, through lecture and two standardized patient interview experiences.

## **DSCD 7730 Dentistry for Adults with Special Health Care Needs**

Variable 0.1-5.0 cr.

To introduce students to medical problems/disabilities affecting patients who will be treated in the School's Special Care Clinic. This includes foundational knowledge in the features of common congenital disabilities, proper communication techniques, and assessment of the oral health treatment strategies most compatible for the patient.

# **DSCD 7855 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments

# **DSEN 7011 Clinical Endodontics 1**

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

# **DSFD 7011 Clinical Fixed Prosthodontics 2**

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

# **DSOD 7711 Diagnosis and Treatment of Common Oral Lesions 1**

Variable 0.1-5.0 cr. made by students and

Presentations of actual treatment cases from the comprehensive patient care program are made by students and critiqued by the faculty.

# **DSOD 7011 Clinical Oral Diagnosis 2**

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

DSOP 7011 Clinical Operative Dentistry 2

Variable .01-5.0 cr.

Clinical rotation in operative dentistry.

# DSOS 7011 Oral and Maxillofacial Surgery 2

Variable .01-5.0 cr.

The diagnosis and treatment of oral and maxillofacial surgical problems including techniques for extraction of teeth alveoplasty, biopsy, management of infection, treatment of maxillary and mandibular fractures, and suturing techniques.

## **DSPD 7700 Pediatric Dentistry 3**

Variable 0.1-5.0 cr.

Course emphasizes diagnostic and treatment considerations for pediatric patients, including lecture materials and case presentations to facilitate a good working knowledge of treatment planning/procedures covering sedation techniques as well as traumatic injuries, hospital dentistry and medically compromised patients.

## **DSPD 7011 Clinical Pediatric Dentistry 1**

Variable 0.1-5.0 cr.

The is a continuation from initial clinical courses providing further experience in developmental, behavioral, preventive, diagnostic, and therapeutic care on a comprehensive basis for pediatric patients in primary, transitional, and permanent dentition phases and patients with special health care needs.

# **DSPE 7011 Clinical Periodontics 2**

Clinical rotation in periodontics.

## **DSRE 7712 Implant Dentistry**

Variable 0.1-5.0 cr.

Variable 0.1-5.0 cr.

Concepts and applications of tissue integrated prostheses are presented and discussed. Topics include prosthetic techniques, diagnosis and treatment planning, analysis of current systems, qualifications and consent and clinical applications.

## **DSRE 7717 Comprehensive Patient Care Clinic B**

Variable 0.1-5.0 cr.

Continuation of Comprehensive Patient Care Clinic A with additional emphasis on the treatment of pediatric, orthodontic, geriatric, and endodontics cases.

## **DSRE 7718 Critical Thinking and Patient Care Seminar**

Variable 0.1-5.0 cr.

This course will provide the student with a practical application of the practice of evidence-based dentistry, critical thinking, formulation of clinical questions, critical appraisal of the literature and the translation of the biologic and social sciences to clinical patient care.

## **DSRE 7935 Treatment Planning and Case Presentation 1**

Variable 0.1-5.0 cr.

Treatment planning concepts and presentation formats, focused on multidisciplinary approach, key tooth analysis, phased treatment plans and case presentation format and technique.

## **DSRP 7011 Clinical Removable Prosthodontics 2**

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

## **DSSD 7712 Dental Pain and Emergencies**

Variable .01-5.0 cr.

This course covers the diagnostic and treatment considerations for the management of the patient in pain and other emergency problems encountered in general dentistry. Independent study assigned by course director.

# **THIRD YEAR, Spring Semester**

## **DSCD 7706 Interprofessional Education Development**

1.0 cr.

This course will establish, teach and evaluate campus-wide student competencies in teamwork, collaborative interprofessional practice and quality and safety, focusing on vulnerable and underserved populations. Embedded within the curriculum will be an exploration of roles of the different professions involved, and skills building in teamwork/communication.

## **DSCD 7709 Public Health and Community Dentistry**

Variable 0.1-5.0 cr.

This course exposes student to the public aspects of oral health care. It identifies the significance and scope of the public health programs at all levels of government and relates the public activities to the private sector

## **DSCD 7726 Dental Practice Planning**

Variable 0.1-5.0 cr.

Teaches students to make basic decisions relating to planning/implementation of private practice. Primary focus on practice arrangements, business formats, dental associateships, buying a practice, designing and equipping dental office, financing practice, leases, debt management, personal/professional insurance, and selecting professional advisors.

## **DSCD 7796 Special Care Clinic A**

Variable 0.1-5.0 cr.

This course is designed to introduce the international student to assess the treatment needs of Persons of Adults with Special Health Care Needs.

# **DSCD 7866 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments

# **DSDD 7700 Medical Problems and Physical Assessment**

Variable 0.1-5.0 cr.

Course provides clinical basis for assessment of patient's medical history, status including systemic disease/physical findings. Directs student from normal interpretation/prevention to degrees of systemic pathophysiology that present acutely as medical emergencies, allowing for competenttreatment.

# **DSDD 7702 Hospital Dentistry**

Variable 0.1-5.0 cr.

This course provides an introduction to the hospital environment and the dental treatment of patients within that environment.

# **DSEN 7712 Endodontics 3**

0.9 cr.

Course addresses topics of diagnosis and management of a variety of endodontic treatment problems such as periapical pathosis, traumatic injuries, surgical intervention, and bleeding

## **DSEN 7022 Clinical Endodontics 2**

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

# **DSFD 7022 Clinical Fixed Prosthodontics 3**

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

Variable 0.1-5.0 cr.

**DSOD 7712 Diagnosis and Treatment of Common Oral Lesions 2** 

#### Continuation of DSOD 7716

## **DSOD 7724 Diagnostic Radiology**

Variable 0.1-5.0 cr.

Basic concepts and interpretative principles for panoramic radiography, TMJ radiography, sialography, xeroradiography, and extraoral views will be presented. Additionally, advanced imaging modalities that have been made available to assist in radiologic diagnoses in dentistry will be introduced.

### **DSOD 7022 Clinical Oral Diagnosis 3**

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

## **DSON 7755 Clinical Oncology**

Variable 0.1-5.0 cr.

One week course including lectures, seminars, tumor boards, surgery rounds, and radiation therapy conferences dealing with prevention, diagnosis, and treatment of head and neck neoplasia.

# **DSOP 7022 Clinical Operative Dentistry 3**

Variable 0.1-5.0 cr.

Clinical rotation in operative dentistry.

## **DSOT 7720 Orthodontics 2**

Variable 0.1-5.0 cr.

Covers Cephalometric analysis laboratory, fabrication of fixed and removable appliances for interceptive and corrective orthodontic treatment. Utilizes acquired knowledge from the previous orthodontic course to synthesize a general and orthodontic diagnosis; and preventive, restorative, and orthodontic treatment plan.

## **DSOT 7021 Clinical Orthodontics 1**

Variable 0.1-5.0 cr.

Clinical rotation in orthodontics.

**DSPD 7022 Clinical Pediatric Dentistry 2** Clinical rotation in pediatric dentistry.

Variable 0.1-5.0 cr.

DSPE 7022 Clinical Periodontics 3

Variable 0.1-5.0 cr.

Clinical rotation in periodontics.

## **DSRE 7706 Critical Appraisal of Translational Literature**

Variable 0.1-5.0 cr.

The purpose of this course is to develop proficiency in critical thinking and problem solving as it pertains to scientific inquiry and research methodology in translational research.

## **DSRE 7711 Advance Prosthodontics**

Variable 0.1-5.0 cr.

This course will address various Advance Prosthodontic topics; beginning with CAD/CAM dentistry and digital workflow, then removable partial denture designs, occlusal concepts, diagnosis and treatment planning, esthetics, and cementation for fixed prosthodontics restorations. Department consent required.

## **DSRE 7719 Comprehensive Patient Care Clinic C**

Variable 0.1-5.0 cr.

Comprehensive patient care activities with a focus on independence, student preparedness, technical skills, patient management and professionalism.

# **DSRE 7936 Treatment Planning and Case Presentation 2**

Variable 0.1-5.0 cr.

Treatment planning concepts and presentation formats, focused on multidisciplinary approach, key tooth analysis, phased treatment plans and case presentation format and technique.

# **DSRP 7022 Clinical Removable Prosthodontics 3**

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

## **THIRD YEAR. Summer Semester**

## **DSCD 7791 Community-based Clinical Dentistry 1**

Variable 0.1-5.0 cr.

All students are required to complete assignments to practice in community-based sites of the ACTS Program, The specific objectives of these clinical assignments vary according to the site assigned to each student. Sites include multi-disciplinary community health care centers, institution or hospital based treatment centers, and private practices, providing care to underserved communities.

## **DSCD 7797 Special Care Clinic B**

Variable 0.1-5.0 cr.

This course is designed to introduce dental students to provide dental treatment to the special needs population.

# DSCD 7877 Independent Study

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

Variable 0.1-5.0 cr.

**DSEN 7033 Clinical Endodontics 3** Clinical rotation in endodontics.

**DSFD 7033 Clinical Fixed Prosthodontics 4** 

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

# DSOD 7033 Clinical Oral Diagnosis 4 Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

School of Dental Medicine

**DSOP 7033 Clinical Operative Dentistry 4** 

Clinical rotation in operative dentistry.

Variable 0.1-5.0 cr.

**DSPD 7033 Clinical Pediatric Dentistry 3** 

Clinical rotation in pediatric dentistry.

Variable 0.1-5.0 cr.

**DSPE 7033 Clinical Periodontics 4** 

Clinical rotation in periodontics.

Variable 0.1-5.0 cr.

**DSRE 7721 Comprehensive Patient Care Clinic D** 

Variable 0.1-5.0 cr.

Continuation of Comprehensive Patient Care C with emphasis on effective practice management.

**DSRP 7033 Clinical Removable Prosthodontics 4** 

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

## FOURTH YEAR, Fall Semester

## **DSCD 8892 Community-Based Clinical Dentistry 2**

Variable 0.1-10.0 cr.

All students are required to complete assignments to practice in community-based sites of the ACTS program. The specific objectives of these clinical assignments vary according to the site assigned to each student. Sites include multi-disciplinary community health care centers, institution or hospital-based treatment centers, and private practices providing care to underserved communities.

**DSCD 8895 Independent Study** 

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

**DSCD 8896 Special Care Clinic C** 

Variable 0.1-5.0 cr.

This course is designed to introduce dental students to provide dental treatment to the special needs population.

**DSEN 8011 Clinical Endodontics 4** 

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

**DSFD 8011 Clinical Fixed Prosthodontics 5** 

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

**DSFD 8861 Advanced Implant Prosthodontics Seminar** 

Variable 0.1-5.0 cr.

A single unit full crown procedure on a patient is performed by the student with specific time restraints and evaluation criteria. The purpose of this is to demonstrate clinical proficiency in this specific technique.

**DSOD 8010 Clinical Oral Radiology** 

Variable 0.1-5.0 cr.

The purpose of this course is to provide students with experience in exposing radiographs and by completing written interpretations of all radiographs. Evaluation will be on a pass/fail basis.

**DSOD 8011 Clinical Oral Diagnosis 5** 

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

**DSOP 8011 Clinical Operative Dentistry 5** 

Variable 0.1-5.0 cr.

Clinical rotation in operative dentistry.

DSOS 8011 Clinical Oral and Maxillofacial Surgery 1

Variable 0.1-5.0 cr.

This is a clinical oral surgery experience including routine and surgical removal of erupted and impacted teeth and use of intravenous sedation techniques.

**DSPE 8011 Clinical Periodontics 5** 

Variable 0.1-5.0 cr.

Clinical rotation in periodontics.

**DSRE 8806 Critical Appraisal of Translational Literature 2** 

Variable 0.1-5.0 cr.

The purpose of this course is to develop proficiency in critical thinking and problem solving as it pertains to scientific inquiry and research methodology in translational research. It provides a continued foundation for discussion of clinical events occurring in the student's clinical practice w/ emphasis on evidence-based dentistry.

DSRE 8810 Restorative Dentistry Advanced Clinical Training Service Seminar

Variable 0.1-5.0 cr.

This seminar-type course is a broad discussion of advanced restorative techniques for complex prosthodontic rehabilitation or reconstruction cases. Specific topics such as aesthetics, TMJ considerations and materials application will be included.

DSRE 8817 Comprehensive Patient Care Clinic E

Variable 0.1-5.0 cr.

Advanced comprehensive patient care including applied principles of practice management.

**DSRE 8945 Treatment Planning and Case Presentation** 

Variable 0.1-5.0 cr.

Treatment planning concepts and presentation formats, focused on multidisciplinary approach, key tooth analysis, phased treatment plans and case presentation format and technique.

## **DSRP 8011 Clinical Removable Prosthodontics 5**

Clinical rotation in removable prosthodontics.

Variable 0.1-5.0 cr.

## **DSSD 8011 Clinical Emergencies 1**

Variable 0.1-5.0 cr.

The patient who presents with oral pain is evaluated and relief of discomfort is provided by the student under the supervision of the dental faculty.

# **FOURTH YEAR, Spring Semester**

## **DSCD 8812 Dental Ethics and Jurisprudence**

Variable 0.1-5.0 cr.

This course prepares students for appropriate conduct consistent with the legal and ethical principles of the dental profession. It lays the foundations for each student's continued growth with respect to the legal and ethical obligations of professionalism.

### **DSCD 8822 Practice Management**

Variable 0.1-5.0 cr.

Primary focus is on financial records, billing and collections, professional insurance, fees, clinical records, third party relations, case presentation, practice analysis, dental practice marketing, and personnel management.

## **DSCD 8866 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

### **DSCD 8893 Community-Based Clinical Dentistry 3**

Variable 0.1-10.0 cr.

All students are required to complete assignments to practice in community-based sites of the ACTS program. The specific objectives of these clinical assignments vary according to the site assigned to each student. Sites include multi-disciplinary community health care centers, institution or hospital-based treatment centers, and private practices providing care to underserved communities.

## **DSCD 8894 Community Based Clinical Dentistry 4**

Variable 0.1-10.0 cr.

Students complete six weeks (may elect to take additional eighteen weeks) in a non-metropolitan, community based educational site. Current sites include rural community health centers, special patient care hospitals, and migrant health care programs as well as several private practicelocations.

**DSEN 8022 Clinical Endodontics 5** 

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

**DSFD 8022 Clinical Fixed Prosthodontics 6** 

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

DSOD 8022 Clinical Oral Diagnosis 6

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

DSOD 8820 Forensic Dentistry

Introductory concepts and techniques in forensic dentistry are presented and discussed.

Variable 0.1-5.0 cr.

**DSOP 8022 Clinical Operative Dentistry 6** 

Clinical rotation in operative dentistry.

Variable 0.1-5.0 cr.

**DSPE 8022 Clinical Periodontics 6**Clinical rotation in periodontics.

**DSRP 8022 Clinical Removable Prosthodontics 6** 

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

## **DSRE 8827 Comprehensive Patient Care Clinic F**

Variable 0.1-13.0 cr.

Continuation of advanced comprehensive patient care activities for DS 4 dental students not registered for Integrated Care Clinic Dentistry.

## **DSRE 8946 Treatment Planning and Case Presentation 4**

Variable 0.1-5.0 cr.

Treatment planning concepts and presentation formats, focused on multidisciplinary approach, key tooth analysis, phased treatment plans and case presentation format and technique.

# FOURTH YEAR, Summer Semester (as needed)

# DSRE 8837 Comprehensive Patient Care Clinic G

Variable .01-15.0 cr.

Continuation of advanced comprehensive patient care activities for DS 4 dental students not registered for Integrated Care Clinical Dentistry.

# **ELECTIVE COURSES**

# **DSEL 9100 Advanced Readings in Pediatric Dentistry**

Variable 0.1-5.0 cr.

Elective seminar offered to interested DS3 students. Each week a different topic in pediatric dentistry will be covered. Students will be expected to read and discuss relevant, current, peer reviewed journal articles and to complete one final assignment.

## **DSEL 9101 Spanish Study Abroad Dental Elective**

Variable 0.1-5.0 cr.

This is an elective course for eligible students that provides the opportunity for dental students to travel to Quetzaltenango, Guatemala to study Spanish intensively for 2 weeks at Celas Maya Spanish Language School. Department consent required.

#### **DSEL 9102 Trifinio Guatemala Dental Elective**

Variable 0.1-5.0 cr.

This course is offered to eligible students who wish to travel for one week to Trifinio, Guatemala to provide comprehensive dental care at the CU Center for Global Health's Trifinio Health Clinic. Department consent required.

### **DSEL 9104 Introduction to Global Health Elective**

Variable 0.1-5.0 cr.

This course consists of 6 seminars covering various global health topics including: global oral health, building a sustainable global oral health program, safe drinking water and GI illnesses, child nutrition, global health policy making and system challenges, and cultural awareness.

### **DSEL 9106 Advanced Readings in Dental Public Health Elective**

Variable 0.1-5.0 cr.

Elective seminar offered to interested DS2 and DS3 students. Different topics in dental public health will be covered. Students will be expected to read, present, discuss and review articles.

## **DSEL 9109 Culinary Dental Medicine**

Variable 0.1-5.0 cr.

Students will work alongside culinary students in the kitchen for hands-on culinary and nutrition training. In addition to preparing recipes and discussing the health benefits, cost, etc. of the recipes, students will also complete modules, readings and discussions about a variety of nutrition topics and nutrition-related diseases. Department consent required

## **DSEL 9110 Refugee and Immigrant Health**

Variable 0.1-5.0 cr.

This course addresses the very timely issue of refugees and immigrants. Students will learn the integration and screening process of refugees, the common physical (including oral) and mental health issues that are prevalent in the refugee community, the role of various playes as well as opportunities to get involved.

## **DENTAL INTERNATIONAL STUDENT PROGRAM**

(The Dental curriculum is subject to change without notice.)

## FIRST YEAR, Spring Semester

## **DISP 7100 Restorative Preclinical Simulation**

Variable 0.1-5.0 cr.

This seminar-based course introduces the student to an overview of contemporary restorative procedures in a simulated clinical environment.

## **DISP 7101 Restorative Preclinical Simulation Lab**

Variable 0.1-5.0 cr.

This laboratory-based course provides students with an overview of restorative techniques in a simulated clinical environment.

## **DISP 7102 Occlusion**

Variable 0.1-5.0 cr.

Course covering principles of intra and inter-oral relationships. Course will also cover diagnosis and treatment regarding the occlusion relationship.

## **DISP 7103 Occlusion Lab**

Variable 0.1-5.0 cr.

The laboratory portion of this course includes fabrication of different splint types. It also introduces principles of equilibration and applying these principles to models.

## **DISP 7104 Independent Student**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

## **DISP 7105 Dental Materials**

Variable 0.1-5.0 cr.

This course will highlight contemporary dental materials and address their chemical composition and clinical application.

## **DISP 7106 Clinical Practice Ethics**

Variable 0.1-5.0 cr.

Case-based ethics discussion.

# **DISP 7111 Complete & Removable Prosthodontics 1**

Variable 0.1-5.0 cr.

The educational goal of this course is for the student to be able to collect information, diagnose, and develop a treatment plan for a completely edentulous patient that requires removable complete denture treatment, in order to restore them to good oral health and function as well as offer an accurate prognosis of treatment.

DISP 7112 Cariology Variable 0.1-5.0 cr.

Basic knowledge about dental caries and didactic instruction and exercises in identifying caries, learning and evaluating detection methods. Additionally, identifying and correlating factors that contribute to caries, and developing programs for prevention and management to reduce identified factors.

## **DISP 7114 Complete & Removable Prothodontics Lab 1**

Variable 0.1-5.0 cr.

The educational goal of this course is for the student to be able to collect information, diagnose, and develop a treatment plan for a completely edentulous patient that requires removable complete denture treatment, in order to restore them to good oral health and function as well as offer an accurate prognosis of treatment. The laboratory part of the course includes the design and fabrication of a removable complete denture.

### **DISP 7121 Endodontics 1 Lecture**

Variable 0.1-5.0 cr.

Course is an introduction to basic endodontics therapy. The philosophy of endodontics treatment and therapeutic techniques is discussed. Mechanisms of inflammation and repair are related to decisions in clinical practice.

DISP 7122 Periodontics 2 Variable 0.1-5.0 cr.

This course deals with the prevention, treatment and control of periodontal disease. Currently accepted therapies are discussed in detail. In addition, the student is taught how to evaluate new therapies which periodically become available.

### **DISP 7123 Periodontics 2 Lab**

Variable 0.1-5.0 cr.

This course is devoted to teaching the clinical skills necessary for the practice of periodontics within the context of a general dental practice.

## **DISP 7124 Clinical Dental Pharmacology**

Variable 0.1-5.0 cr.

Integration of basic drug mechanisms with fundamentals of clinical pharmacology and patient care.

## **DISP 7125 Pain Control 1 (Local Anesthesia)**

Variable 0.1-5.0 cr.

The anatomy of the nerve supply to the teeth and associated structures is covered. The techniques for administration of local anesthesia to the maxilla and mandible are demonstrated by the faculty and performed by the student.

### **DISP 7126 Prevention and Management of Medical Emergencies**

Variable 0.1-5.0 cr.

The prevention, diagnosis, and management of medical emergencies are presented.

## **DISP 7129 Infection Control**

Variable 0.1-5.0 cr.

This course reviews the fundamental principles of infection control including a focus on universal precautions, aseptic technique, methods of sterilization and regulatory issues.

# **DISP 7130 Oral Radiology**

Variable 0.1-5.0 cr.

Designed to introduce the students to basic radiology and to provide them with the necessary practical skills in preparation for clinical dentistry.

## **DISP 7131 Oral Radiology Lab**

Variable 0.1-5.0 cr.

The laboratory is designed to provide students with the necessary practical skills in preparation for clinical dentistry.

# **DISP 7132 Diagnostic Radiology**

Variable 0.1-5.0 cr.

Basic concepts and interpretative principles for panoramic radiography, TMJ radiography, sialography, xeroradiography, and extraoral views will be presented. Additionally, advanced imaging modalities that have been made available to assist in radiologic diagnoses in dentistry will be introduced.

## **DISP 7140 Pediatric Dentistry 1**

Variable 0.1-5.0 cr.

Basic principles of clinical diagnosis and treatment of the child patient are introduced. Developmental aspects of the formation of the craniofacial complex are applied to clinical management of space maintenance, pupal, restorative, and behavior management problems.

## **DISP 7160 Managing Your Student Practice**

Variable 0.1-5.0 cr.

This course will address the University of Colorado School of Dental Medicine Clinic Policy and Procedure Manual and Dental Clinic Education Manual to assist each student in learning to manage their dental school practice within the CU Dental Teams Model, making decisions that satisfy legal, society and ethical principles, to provide care for all patients and improve oral health. The course will also address issues in communicating with the staff and faculty as well as understanding regulatory requirement of a dental practice.

## **DISP 7163 Transition Clinic for ISP Students**

Variable 0.1-5.0

A mini-orientation of clinical methods and practices and introduction to the appropriate utilization of AxiUm software. This will include an overview of the SODM oral diagnoses and treatment planning processes, procedures and policies with both clinical and didactic components.

# FIRST YEAR, Summer Semester

## **DISP 7113 Complete and Removable Prosthodontics 2**

Variable 0.1-5.0 cr.

The educational goal of this course is for the student to be able to collect information, diagnose, and develop a

treatment plan for a completely edentulous patient that requires removable complete denture treatment, in order to restore them to good oral health and function as well as offer an accurate prognosis of treatment.

## DISP 7115 Complete and Removable Prosthodontics Lab 2

Variable 0.1-5.0 cr.

The laboratory part of the course includes the design and fabrication of a removable complete denture.

### **DISP 7119 Communication and Behavior Change**

Variable 0.1-5.0 cr.

This interactive course focuses on communication skills for enhanced treatment planning dialogues and to facilitate behavior changes toward systemic and oral health, Professionalism, ethics and the patient-centered approach are emphasized within a humanistic culture in oral health care settings.

### DISP 7121 Endodontics 1 & 2

Variable 0.1-5.0 cr.

Course is an introduction to basic endodontics therapy. The philosophy of endodontics treatment and therapeutic techniques is discussed. Mechanisms of inflammation and repair are related to decisions in clinical practice.

### **DISP 7201 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

#### **DISP 7202 Case Presentation 1**

Variable 0.1-5.0 cr.

Patient care with development of treatment plan through presentation by student to students and faculty.

### **DISP 7203 Fixed Prosthodontics**

Variable 0.1-5.0 cr.

An advanced preclinical lecture course covering ceramic restorations along with discussion of pontic design and manipulation of gold solder. Dowel-core fabrication for endodontically treated teeth is covered. Clinical application is stressed and study of diagnosis and treatment planning is expanded.

## **DISP 7204 Fixed Prosthodontics Laboratory**

Variable 0.1-5.0 cr.

Emphasis on ceramic restorations and procedures involved in fabricating fixed bridges in the anterior of appearance zone. Restorations include direct pattern fabrication of dowel-cores to building up badly broken-down or fractured teeth.

## **DISP 7205 Comprehensive Patient Care Clinic A**

Variable 0.1-5.0 cr.

An introductory clinic for students providing comprehensive dental care refining technical skills, learning patient management skills in a large group practice setting.

## **DISP 7206 Clinical Restorative**

Variable 0.1-5.0 cr.

Combines clinical experience with diagnosis, treatment planning, restorative treatment. Students assigned a fully dentated/partially/fully edentulous patient needing restorative procedures. Restorative materials include amalgam. cast gold, and tooth-colored composite resins/porcelain. Emphasis on fabrication of restorations that function adequately.

## **DISP 7216 Operative Dentistry Seminar 2**

Variable 0.1-5.0 cr.

This course will present topics on operative dentistry relative to clinic patient care. Current materials and techniques as well as a review of fundamental concepts of operative dentistry will be taught.

# **DISP 7220 Pain Control 2 (Nitrous Oxide Analgesia)**

Variable 0.1-5.0 cr.

Pharmacological indications and contraindications and prevention and treatment of complications relating to use of nitrous oxide is presented.

# DISP 7223 Periodontics 2 Lab Section 2

Variable 0.1-5.0 cr.

This course is devoted to teaching the clinical skills necessary for the practice of periodontics within the context of a general dental practice.

# **DISP 7231 Health Data Collection 1**

Variable 0.1-5.0 cr.

Designed to introduce the student to the problem-oriented dental record and to a systems approach to the collection of health data. Includes both lecture and clinical phases.

# **DISP 7232 Clinical Oral Diagnosis**

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

**DISP 7240 Pediatric Dentistry 2** Basic principles of clinical diagnosis and treatment of the child patient are introduced. Variable 0.1-5.0 cr.

# DISP 7320 Oral and Maxillofacial Surgery 2

Variable 0.1-5.0 cr.

The diagnosis and treatment of oral and maxillofacial surgical problems including techniques for extraction of teeth alveoplasty, biopsy, management of infection, treatment of maxillary and mandibular fractures, and suturing techniques.

## **DISP 7321 Periodontics 3**

Variable 0.1-5.0 cr.

This course is devoted to making the student familiar with the surgical management of periodontal disease. The indications and rationale for resection, reconstructive and mucogingival procedures are discussed.

# FIRST YEAR, Fall Semester

**DISP 7211 Endodontics 1 Laboratory** 

Variable 0.1-5.0 cr.

This is a laboratory course in basic endodontic techniques utilizing extracted natural teeth as models of clinical treatment.

**DISP 7222 Orofacial Pain** Variable 0.1-5.0 cr.

This course is designed to acquaint the student with evaluation, diagnosis, arrangement and pathology of the temporomandibular joint. Emphasis is on the multidisciplinary nature of treating disorders of TMJ.

#### **DISP 7300 Case Presentation 2** Variable 0.1-5.0 cr.

Presentations of actual treatment cases from the comprehensive patient care program are made by students and critiqued by the faculty.

### **DISP 7301 Comprehensive Patient Care Clinic B**

Variable .01-5.0 cr.

Continuation of Comprehensive Patient Care Clinic A with additional emphasis on the treatment of pediatric, orthodontic, geriatric, and endodontics cases.

## **DISP 7303 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

## **DISP 7310 Implant Dentistry**

Variable 0.1-5.0 cr.

Concepts and applications of tissue integrated prostheses are presented and discussed. Topics include an historical perspective of implant dentistry, surgical and prosthetic techniques, diagnosis and treatment planning analysis of current systems, qualifications and consent, and clinical applications.

### **DISP 7314 Esthetic Dentistry**

Variable 0.1-5.0 cr.

This course is designed to present information to students about those clinical dentistry procedures or concepts which are performed primarily to enhance dental esthetics.

## **DISP 7318 Critical Thinking and Patient Care Seminar**

Variable 0.1-5.0 cr.

This course will provide the student with a practical application of the practice of evidence-based dentistry, critical thinking, formulation of clinical questions, critical appraisal of the literature and the translation of the biologic and social sciences to clinical patient care.

## DISP 7320 Oral and Maxillofacial Surgery 2

Variable 0.1-5.0 cr.

The diagnosis and treatment of oral and maxillofacial surgical problems including techniques for extraction of teeth alveoplasty, biopsy, management of infection, treatment of maxillary and mandibular fractures, and suturing

## **DISP 7323 Dental Pain and Emergencies**

Variable 0.1-5.0 cr.

This course covers the diagnostic and treatment considerations for the management of the patient in pain and other emergency problems encountered in general dentistry.

# **DISP 7328 Clinical Periodontics**

Variable 0.1-5.0 cr.

Clinical rotation in periodontics.

# DISP 7330 Oral Pathology 1

Variable 0.1-5.0 cr.

This course is a comprehensive review of the fundamental mechanisms and general principles of oral pathology, including developmental disturbances of oral and para-oral structures, benign and malignant tumors and cysts.

# **DISP 7331 Clinical Oral Diagnosis**

Variable 0.1-5.0 cr.

Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

**DISP 7335 Clinical Fixed Prosthodontics** Clinical rotation in fixed prosthodontics.

Variable 0.1-5.0 cr.

**DISP 7336 Clinical Operative Dentistry** Clinical rotation in operative dentistry.

**DISP 7337 Clinical Removable Prosthodontics** 

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

## **DISP 7340 Pediatric Dentistry 3**

Variable 0.1-5.0 cr.

Course emphasizes diagnostic/treatment considerations for pediatric patients. Lecture materials by faculty/case presentations utilized to facilitate working knowledge of treatment planning/procedures. Sedation techniques for behavior problems discussed as well as traumatic injuries, hospital dentistry and medically compromised patients.

# DISP 7360 Behavioral, Geriatric, and Special Dentistry

Variable 0.1-5.0 cr.

Course teaches clinical/behavioral skills for successful dental practice including: behavioral patient management (managing fearful/anxious patients, communication skills), geriatric dental issues (psychosocial assessment, treatment planning, and clinical interventions), and special care dentistry (medical problems, disabilities, and health issues).

## **DISP 7370 Diagnosis and Treatment of Common Oral Lesions 1**

Variable 0.1-5.0 cr.

Presentations of actual treatment cases from the comprehensive patient care program are made by student and critiqued by the faculty.

### DISP 7380 Dentistry for Adults with Special Health Care Needs

Variable 0.1-5.0 cr.

To introduce students to medical problems/disabilities affecting patients who will be treated in the School's Special Care Clinic. This includes foundational knowledge in the features of common congenital disabilities, proper communication techniques, and assessment of the oral health treatment strategies most compatible for the patient.

## SECOND YEAR, Spring Semester

## **DISP 8100 Case Presentation 3**

Variable 0.1-5.0 cr.

Patient care with development of treatment plan through presentation by student to students and faculty.

# **DISP 8101 Comprehensive Patient Care Clinic C**

Variable 0.1-5.0 cr.

Continuation of Comprehensive Patient Care Clinic B with activities focusing on independence, student preparedness, technical skills, patient management and professionalism.

### **DISP 8104 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

### **DISP 8110 Restorative Dentistry Advanced Clinical Training Service Seminar**

Variable 0.1-5.0 cr.

This seminar-type course is a broad discussion of advanced restorative techniques for complex prosthodontic rehabilitation or reconstruction cases. Specific topics such as anesthetics, TNJ considerations and materials application will be included.

# **DISP 8116 Critical Appraisal of Translational Literature**

Variable 0.1-5.0 cr.

The purpose of this course is to develop proficiency in critical thinking and problem solving as it pertains to scientific inquiry and research methodology in translational research.

### **DISP 8120 Endodontics 3**

Variable 0.1-5.0 cr.

This course addresses topics of diagnosis and management of a variety of endodontic treatment problems such as periapical pathosis, traumatic injuries, surgical intervention, and bleeding.

## **DISP 8123 Clinical Endodontics**

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

#### **DISP 8124 Clinical Periodontics**

Variable 0.1-5.0 cr.

Clinical rotation in periodontics.

## **DISP 8125 Clinical Oral Maxillofacial Surgery 1**

Variable 0.1-5.0 cr.

This is a clinical oral surgery experience including routine and surgical removal of erupted and impacted teeth and use of intravenous sedation techniques.

## **DISP 8127 Medical Problems and Physical Assessment**

Variable 0.1-5.0 cr.

This course provides competent clinical basis for assessment of patient's medical history, current status including systemic disease/physical findings. Directs student from normal interpretation/prevention to systemic pathophysiology that presents as medical emergency, allowing for proper recognition/competent medical treatment.

# **DISP 8128 Hospital Dentistry**

Variable 0.1-5.0 cr.

This course provides an introduction to the hospital environment and the dental treatment of patients within that environment.

# **DISP 8130 Clinical Oncology**

Variable 0.1-5.0 cr.

An assignment of one week for students includes lectures, seminars, tumor boards, surgery rounds, and radiation therapy conferences on a health professional approach to the prevention, diagnosis, and treatment of head and neck neoplasia.

DISP 8131 Oral Pathology 2

Variable 0.1-5.0 cr.

This course is a continuation of DISP 7330.

Variable 0.1-5.0 cr.

DISP 8132 Forensic Dentistry
Introductory concepts and techniques in forensic dentistry are presented and discussed.

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Variable 0.1-5.0 cr.

**DISP 8133 Clinical Oral Diagnosis** Clinical rotation in oral diagnosis.

**DISP 8135 Clinical Operative Dentistry** Clinical rotation in operative dentistry.

Variable 0.1-5.0 cr.

**DISP 8136 Clinical Fixed Prosthodontics** 

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

DISP 8137 Clinical Removable Prosthodontics

Variable 0.1-5.0 cr.

Clinical rotation in removable prosthodontics.

Variable 0.1-5.0 cr.

Clinical rotation in pediatric dentistry.

## **DISP 8160 Dental Ethics and Jurisprudence**

Variable 0.1-5.0 cr.

This course prepares students for appropriate conduct consistent with the legal and ethical principles of the dental profession. It lays the foundations for each student's continued growth with respect to the legal and ethical obligations of professionalism.

## **DISP 8161 Practice Management**

Variable 0.1-5.0 cr.

Understanding of basic management activities which must be continuously carried out in private practice. Primary focus on financial records, billing and collections, professional insurance, fees, clinical records, third party relations, case presentation, practice analysis, dental practice marketing, and personnel management.

### **DISP 8162 Dental Practice Planning**

Variable 0.1-5.0 cr.

All students will be required to complete a minimum of six weeks and may elect an additional eighteen weeks experience in a non-metropolitan community-based educational site. The specific objectives of these clinical experiences vary according to the specific site of assignment. Current sites for student experiences include multi-disciplinary rural community health centers, special patient care hospitals for patients with psychiatric illness and neuropathologically impaired patients, and migrant health care program. Additionally, a number of private practice locations are available for students desiring private practice experience. (Students may be assigned or elect this course in the Spring or Summer semesters of the fourth academic year.)

### **DISP 8170 Diagnosis and Treatment of Common Oral Lesions 2**

Variable 0.1-5.0 cr.

Continuation of DISP 7326

## **DISP 8176 Public Health and Community Dentistry**

Variable 0.1-5.0 cr.

This course exposes student to the public aspects of oral health care. It identifies the significance and scope of public health programs at all levels of government and relates the public activities to the private practice of dentistry.

## **DISP 8203 Special Care Clinic A**

Variable 0.1-5.0 cr.

This course is designed to introduce the international student to assess the treatment needs of Persons of Adults with Special Health Care Needs.

### **DISP 8209 Advance Prosthodontics**

Variable 0.1-5.0 cr.

This course will address various advance prosthodontic topics; beginning with CAD/CAM dentistry and digital workflow, then removable partial denture designs, occlusal concepts, diagnosis and treatment planning, esthetics, and cementation for fixed prosthodontics restorations.

# SECOND YEAR, Summer Semester

# **DISP 8105 Evidence Based Topical Reviews**

Variable 0.1-5.0 cr.

Introduction to concepts of evidence based dentistry and hierarchy of evidence for clinically relevant topics. Students develop clinically relevant queries and submit PICO questions, bibliographies, publication critiques, and make presentations regarding he evidence for their topic to their classmates/faculty.

## **DISP 8125 Clinical Oral Maxillofacial Surgery**

Variable 0.1-5.0 cr.

This is a clinical oral surgery experience including routine and surgical removal of erupted and impacted teeth and use of intravenous sedation techniques.

## **DISP 8200 Case Presentation 4**

Variable 0.1-5.0 cr.

Patient care with development of treatment plan through presentation by student to students and faculty.

# **DISP 8201 Comprehensive Patient Care Clinic D**

Variable 0.1-5.0 cr.

Continued provision of Comprehensive Patient Care Clinic C with emphasis on effective practice management.

## DISP 8206 Special Care Clinic B

Variable 0.1-5.0 cr.

This course is designed to introduce the student to provide dental treatment to the special needs population.

# **DISP 8204 Independent Study**

Variable 0.1-5.0 Cr.

Course assigned as needed for independent assignments.

Variable 0.1-5.0 cr.

**DISP 8220 Clinical Endodontics**Clinical rotation in endodontics.

Variable 0.1-5.0 cr.

**DISP 8222 Clinical Periodontics** 

Clinical rotation in periodontics.

Variable 0.1-5.0 cr.

DISP 8225 Clinical Fixed Prosthodontics

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

**DISP 8226 Clinical Operative Dentistry** Clinical rotation in operative dentistry.

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## **DISP 8227 Clinical Oral Diagnosis**

Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

## **DISP 8231 Clinical Oral Diagnosis**

Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

## **DISP 8240 Clinical Pediatric Dentistry**

Variable 0.1-5.0 cr.

This course provides experience in developmental, behavioral, preventive, diagnostic, and therapeutic care on a comprehensive basis for pediatric patients in the primary, transitional, and permanent dentition phases and patients with special health needs.

## **DISP 8251 Clinical Orthodontics**

Variable 0.1-5.0 cr.

This is a continuation from initial clinical courses providing further experience in developmental, behavioral, preventive, diagnostic, and therapeutic care on a comprehensive basis for pediatric patients in primary, transitional, and permanent dentition phases and patients with special health care needs.

### **DISP 8322 Periodontics 4**

Variable 0.1-5.0 cr.

This course emphasizes the interrelationships of periodontics and restorative dentistry and the management of advanced periodontal pathology is discussed.

## SECOND YEAR, Fall Semester

## **DISP 8105 Evidence Based Topical Reviews**

Variable 0.1-5.0 cr.

Introduction to concepts of evidence based dentistry and hierarchy of evidence for clinically relevant topics. Students develop clinically relevant queries and submit PICO questions, bibliographies, publication critiques, and make presentations regarding he evidence for their topic to their classmates/faculty.

# **DISP 8110 Restorative Dentistry Advanced Clinical Trainin Service Seminar**

Variable 0.1-5.0 cr.

This seminar-type course is a broad discussion of advanced restorative techniques for complex prosthodontic rehabilitation or reconstruction cases. Specific topics such as anesthetics, TMJ considerations and materials application will be included.

# **DISP 8207 Special Care Clinic C**

Variable 0.1-5.0 cr.

This course is designed to introduce the student to provide dental treatment to the special needs population.

## **DISP 8209 Advance Prosthodontics**

Variable 0.1-5.0 cr.

This course will address various advance prosthodontic topics; beginning with CAD/CAM dentistry and digital workflow, then removable partial denture designs, occlusal concepts, diagnosis and treatment planning, esthetics, and cementation for fixed prosthodontics restorations.

## **DISP 8300 Case Presentation 5**

Variable 0.1-5.0 cr.

Patient care with development of treatment plan through presentation by student to students and faculty.

# **DISP 8301 Comprehensive Patient Care Clinic E**

Variable 0.1-5.0 cr.

Advanced comprehensive patient care including applied principles of practice management.

# **DISP 8303 Independent Study**

Variable 0.1-5.0 cr.

Course assigned as needed for independent assignments.

# **DISP 8310 Advanced Implant Prosthodontics Seminar**

Variable 0.1-5.0 cr.

Students gain experience in clinical use of cast restorations. Emphasis is placed on the fabrication of restorations that are to function adequately in the patient's biologic environment.

## **DISP 8321 Clinical Endodontics**

Variable 0.1-5.0 cr.

Clinical rotation in endodontics.

Variable 0.1-5.0 cr.

**DISP 8323 Clinical Periodontics** Clinical rotation in periodontics.

**DISP 8325 Clinical Fixed Prosthodontics** 

Variable 0.1-5.0 cr.

Clinical rotation in fixed prosthodontics.

Variable 0.1-5.0 cr.

**DISP 8326 Clinical Operative Dentistry** 

Clinical rotation in operative dentistry.

Variable 0.1-5.0 cr.

**DISP 8327 Clinical Oral Diagnosis** Clinical rotation in oral diagnosis.

Variable 0.1-5.0 cr.

**DISP 8328 Clinical Oral Radiology** Clinical rotation in oral radiology.

Variable 0.1-5.0 cr.

**DISP 8330 Clinical Oral Diagnosis** Clinical rotation in oral diagnosis.

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## DISP 8350 Orthodontics Variable 0.1-10.0 cr.

Early physical and emotional development of the child is presented, emphasizing prenatal and neonatal influences on the craniofacial complex. The etiology and classification of malocclusion along with the development of disturbances of hard and soft tissues are introduced.

## **DISP 8355 Clinical Emergencies**

Variable 0.1-5.0 cr.

The patient who presents with oral pain is evaluated and relief of discomfort is provided by the student under the supervision of the dental faculty. Department Consent Required.

## **ELECTIVES**

## **DISP 8400 Advanced Readings in Pedaitric Dentistry Elective**

Variable 0.1-5.0 cr. Elective

seminar offered to interested ISP students. Each week a different topic in pediatric dentistry will be covered. Students will be expected to read and discuss relevant, current, peer reviewed journal articles and to complete one final assignment.

### **DISP 8401 Spanish Study Abroad Elective**

Variable 0.1-5.0 cr.

This is an elective course for eligible students that provides the opportunity for ISP students to travel to Quetzaltenango, Guatemala to study Spanish intensively for 2 weeks at Celas Maya Spanish Language School. Department consent required.

### **DISP 8402 Trifinio Guatemala ISP Elective**

Variable 0.1-5.0 cr

This course is offered to eligible students who wish to travel for one week to Trifinio, Guatemala to provide comprehensive dental care at the CU Center for Global Health's Trifinio Health Clinic. Department consent required.

## **DISP 8406 Advanced Readings in Dental Public Health Elective**

Variable 0.1-5.0 cr.

Elective seminar offered to interested students. Different topics in dental public health will be covered. Students will be expected to read, present, discuss and review articles.

### **DISP 8409 Dental Culinary Science**

Variable 0.1-5.0 cr.

Students will work alongside culinary students in the kitchen for hands-on culinary and nutrition training. In addition to preparing recipes and discussing the health benefits, cost, etc. of the recipes, students will also complete modules, readings and discussions about a variety of nutrition topics and nutrition-related diseases. Department consent required.

## **DISP 8410 Refugee and Immigrant Health**

Variable 0.1-5.0 cr.

This course addresses the very timely issue of refugees and immigrants. Students will learn the integration and screening process of refugees, the common physical (including oral) and mental health issues that are prevalent in the refugee community, the role of various playes as well as opportunities to get involved.

# POSTGRADUATE PERIODONTICS CERTIFICAT/MASTER PROGRAM (The Postgraduate Periodontics curriculum is subject to change without notice.)

## First Year, Summer Semester

## DPER 7100 Periodontics Specialty Clinic 1 5.8 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

## DPER 7101 Periodontal Current Literature 1 1.0 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 7103 Periodontal Literature Review Seminar 1 0.5 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

# DPER 7111 Advanced Periodontal Concepts 1.1 cr.

This postdoctoral course is an intense review of periodontal procedures, in which residents are also instructed in periodontal case documentation procedures, intra-oral photography, record keeping and clinical protocol.

# DPER 7113 Oral Medicine & Clinical Diagnosis 1.0 cr.

In this postdoctoral course, students review a variety of oral diseases and accepted methods of treatment of those as well as systemic diseases manifested in the oral cavity.

# DPER 7114 Physical Diagnosis 1.3 cr.

This course will emphasize the art and science of medical history and physical assessment of dental patients. Anatomy, physiology, techniques of examination and clinical relevance for various body systems will be discussed at length.

# DPER 7115 Interdisciplinary Course 1A 0.3 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR, Periodontics, and Prosthodontics faculty to share

clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.\

## DPER 7211 Pain Control & Sedation/Comprehensive Management 2.0 cr.

This is a postgraduate course for pain control and sedation, and evaluation of patients to determine appropriate modalities of pain and anxiety control.

# First Year, Fall Semester

#### DPER 7200 Periodontics Specialty Clinic 2 8.9 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

### DPER 7201 Periodontal Current Literature 1A 3.3 cr.

This postdoctoral course encompasses a review of the latest dental and medical journals for the most recent information related to the art, science, and practice of periodontics. Students prepare abstracts to be discussed at scheduled seminars. (Part 1 of two-semester course)

#### **DPER 7203 Periodontal Literature Review Seminar 1A** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

#### **DPER 7204 Periodontal Case Presentations Seminar 1** 1.3 cr.

In this postdoctoral course, residents prepare and present a complete documentation database, diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology. (Part 1 of two-semester course)

### **DPER 7210 Advanced Periodontal Biology**

This postdoctoral course develops a fundamental understanding of the microscopic anatomy, cell biology and physiology of the periodontal tissues in health, during disease progression, and following periodontal therapy.

# **DPER 7212 Postgraduate Dental Implantology Seminar 1**

In this initial lecture and seminar course, relevant readings in the dental literature relating to specific topics in dental implantology are assigned and critically discussed. A variety of cases are treatment planned by the residents.

## **DPER 7215 Interdisciplinary Couse 1B**

Seminar includes residents from GPR and Graduate Periodontics and GPR, periodontics, and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

# DPER 7216 Pharmacology I 0.8 cr.

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases; & adverse drug events. Based on the 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, special reference/dent.

# DPER 7219 Dental and Medical Emergency Management 0.6 cr.

This is a pragmatic course to familiarize the resident with dental and medical emergencies that may present during patient care. Major texts on medical emergency management and the medically compromised patient are used as a guideline.

#### **DPER 8120 Head & Neck Anatomy** 3.0 cr.

This postdoctoral course is an advanced study of head and neck anatomy as it relates to periodontal patient care

#### DSGD 5105 Research Methodology & Biostatistics 1 2.0 cr.

This graduate course in dentistry is an in-depth study of scientific research methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of a study and carryout a scientific research project.

## First Year, Spring Semester

#### **DPER 7300 Periodontics Specialty Clinic 3** 7.8 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

# **DPER 7301 Periodontal Current Literature Review Seminar 1B**

This postdoctoral course encompasses a review of the latest dental and medical journals for the most recent information related to the art, science, and practice of periodontics. Students prepare abstracts to be discussed at scheduled seminars. (Part 2 of two-semester course)

## DPER 7303 Periodontal Literature Review Seminar 1B 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 7304 Periodontal Case Presentations Seminar 1A 1.8 cr.

In this postdoctoral course, residents prepare and present a complete data base, diagnosis/prognosis,

treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology. (Part 2 of two-semester course)

### DPER 7305 Periodontal Research 1 1.5 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## DPER 7308 Ethics and Practice Management 1 0.6 cr.

This course provides the periodontal resident with the information needed for successful personal financial and practice management. Curriculum will rotate over a three-year cycle to include personal financial management, human resources, accounting, legal, and dental practice management.

#### **DPER 7315 Interdisciplinary Course 1C** 2.3 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR, periodontics, and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 7316 Pharmacology II** 0.8 cr.

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases; & adverse drug events. Based on the 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, special reference/dent.

#### **DPER7317 Implant Provisionalization for the Perio Resident** 1.3 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR, periodontics, and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 8106 Anesthesiology** 1.3 cr.

This is a hospital based seminar and clinical course to familiarize the resident in patient evaluation, pharmacology, airway management, IV techniques, and general anesthesia procedures.

#### DSGD5205 Research Methodology & Biostatistics 2 2.5 cr.

This graduate course in dentistry is an advanced in-depth study of scientific research methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of a study. In addition, this course requires the student to prepare a research proposal.

# DSGD 6209 Surgical Anatomy and Osteology 0.7 cr.

Presentation of head and neck anatomy with emphasis on surgical anatomy related to procedures that a periodontist would perform. Comprehensive osteology is reviewed to prepare the orthodontic resident for board certification with also an emphasis on surgical procedures relevant to the orthodontist.

# Second Year, Summer Semester

#### **DPER 8100 Periodontics Specialty Clinic 4** 5.8 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

#### **DPER 8101 Periodontal Current Literature 2** 1.0 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

#### **DPER 8102 Periodontal Literature Review Seminar 2** 0.5 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 8105 Periodontal Research 2 1.0 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, collect and analyze the results, and write a publishable manuscript on the project.

#### **DPER 8115 Interdisciplinary Course 2A** 0.8 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR, periodontics, and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 8116 Management of Orofacial Pain** 1.4 cr.

This course focuses on the structure, function, and pathofunction of the cranio-cervical region and stomatognathic system emphasizing different diagnosis and case-specific management utilizing evidenced-based decision making.

# DSGD 5341 Fundamentals of Teaching/Communication 1.0 cr.

This graduate course in dentistry prepares students to communicate effectively with patients and their families to enhance treatment planning dialogues, facilitate case presentations and acceptance, and encourage behavioral changes toward attaining and maintaining systemic and oral health.

## DSGD 5344 Advanced Radiology and Radiographic Interpretation 1.4 cr.

This graduate course in dentistry in oral and maxillofacial radiology includes lectures and case studies in radiation physics, radiation biology, radiation hygiene and radiographic techniques. In addition, this course will provide information on advanced imaging modalities and interpretative skills.

## Second Year, Fall Semester

#### DPER 8200 Periodontics Specialty Clinic 5 10.9 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

#### **DPER 8201 Periodontal Current Literature 2A** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

#### **DPER 8203 Periodontal Literature Review Seminar 3** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

### DPER 8204 Periodontal Case Presentations Seminar 2A 1.3 cr.

In this postdoctoral course, residents prepare and present a complete documentation database, diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology. (Part 1 of two-semester course)

# DPER 8205 Periodontal Research 3 1.0 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## DPER 8206 Periodontics Clinical Teaching 1A 1.0 cr.

Postdoctoral periodontics students gain experience in instructing dental and hygiene students after receiving instruction in the basics of didactic and clinical teaching.

## **DPER 8215 Interdisciplinary Course 2B**

Seminar includes residents from GPR and Graduate Periodontics and GPR periodontics and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

# **DPER 8216 Pharmacology III**

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases; & adverse drug events. Based on top 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, reference/dent.

# DPER 8219 Dental and Medical Emergency Management 0.6 cr.

This is a pragmatic course to familiarize the resident with dental and medical emergencies that may present during patient care. Major texts on medical emergency management and the medically compromised patient are used as a guideline.

## DPER 8221 Implants in the Orthodontic Patient 1.0 cr.

This postdoctoral course is an in-depth study of the use of implants in patients both for restorative dentistry and as an orthodontic anchorage.

## DPER 8222 Periodontic/Orthodontic Treatment 1.0 cr.

This postdoctoral course is a study of the interdisciplinary care of the patient with periodontal and orthodontic needs and includes a review of the literature in conjunction with a periodontist and orthodontist.

## Second Year, Spring Semester

# **DPER 8300 Periodontics Specialty Clinic 6**

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

#### **DPER 8301 Periodontal Current Literature 2B** 2.0 cr.

In this postdoctoral seminar course, relevant reading in the periodontal literature relating to specific topics are assigned and critically discussed.

7.0 cr.

#### **DPER 8303 Periodontal Literature Review Seminar 4** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

# DPER 8304 Periodontal Case Presentations Seminar 2A 1.8 cr.

In this postdoctoral course, residents prepare and present a complete documentation database, diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology.

#### DPER 8305 Periodontal Research 4 1.5 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

### DPER 8306 Periodontics Clinical Teaching 1B 1.5 cr.

Postdoctoral periodontics students gain experience in instructing dental and hygiene students after receiving instruction in the basics of didactic and clinical teaching.

### DPER 8308 Ethics and Practice Management 2 0.6 cr.

This course provides the periodontal resident with the information needed for successful personal, financial, and practice management. Curriculum will rotate over a three-year cycle to include personal financial management, human resources, accounting, legal and dental practice management.

#### **DPER 8311 Advanced Immunology/Microbiology** 1.5 cr.

This postdoctoral course will review and update knowledge in the areas of microbiology and immunology relevant to homeostasis and pathology in the oral cavity.

#### **DPER 8315 Interdisciplinary Course 2C** 2.3 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR periodontics and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 8316 Pharmacology IV** 0.8 cr.

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases; & adverse drug events. Based on top 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, reference/dent.

## DPER 8317 Advanced Oral & Maxillofacial Pathology for Perio

This course is designed to prepare residents to recognize, analyze and appreciate primary/secondary disease conditions of the oral & paraoral regions. Reflects an emphasis on the understanding of basic and fundamental biologic aberrations and an integration of these concepts into a meaningful approach to diagnostic pathology.

# Third Year, Summer Semester

#### **DPER 9100 Periodontics Specialty Clinic 7** 5.8 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

## DPER 9101 Periodontal Current Literature 3A 1.0 cr.

In this postdoctoral seminar course, relevant reading in the periodontal literature relating to specific topics are assigned and critically discussed.

#### **DPER 9102 Periodontal Literature Review Seminar 5** 0.5 cr.

In this postdoctoral seminar course, relevant reading in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 9105 Periodontal Research 5 0.5 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

# DPER 9106 Periodontics Clinical Teaching 2A 1.0 cr.

Postdoctoral periodontics students gain experience in instructing dental and hygiene students after receiving instruction in the basics of didactic and clinical teaching.

#### **DPER 9015 Interdisciplinary Course 3A** 0.8 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR periodontics and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

## DSGD 5311 Scientific Writing and Evaluation 1.5 cr.

This graduate course in dentistry is an in-depth study of scientific writing to prepare the student to evaluate the literature as well as to prepare a scientific manuscript for publication.

## Third Year, Fall Semester

#### **DPER 9200 Periodontics Specialty Clinic 8** 8.7 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

#### **DPER 9201 Periodontal Current Literature 3B** 3.3 cr.

In this postdoctoral seminar course, relevant reading in the periodontal literature relating to specific topics are assigned and critically discussed.

#### **DPER 9203 Periodontal Literature Review Seminar 6** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 9204 Periodontal Case Presentations Seminar 3A 1.3 cr.

In this postdoctoral course, residents prepare and present a complete documentation database. diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology.

## DPER 9205 Periodontal Research 6 1.0 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## DPER 9206 Periodontics Clinical Teaching 2B 1.0 cr.

Postdoctoral periodontics students gain experience in instructing dental and hygiene students after receiving instruction in the basics of didactic and clinical teaching. (Part 2 of two-semester course)

#### **DPER 9215 Interdisciplinary Course 3B** 2.8 cr.

Seminar includes residents from GPR and Graduate Periodontics and GPR periodontics and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 9216 Pharmacology V** 0.8 cr.

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases; & adverse drug events. Based on top 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, reference/dent.

# DPER 9219 Dental and Medical Emergency Management 0.6 cr.

This is a pragmatic course to familiarize the resident with dental and medical emergencies that may present during patient care. Major texts on medical emergency management and the medically compromised patient are used as a guideline.

# Third Year, Spring Semester

#### **DPER 9300 Periodontics Specialty Clinic 9** 7.8 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment. dental implantology, and periodontal plastic procedures.

#### **DPER 9301 Periodontal Current Literature 3C** 2.0 cr.

This postdoctoral course encompasses a review of the latest dental and medical journals for the most recent information related to the art, science, and practice of periodontics. Students prepare abstracts to be and discussed at scheduled seminars.

#### **DPER 9303 Periodontal Literature Review Seminar 7** 3.3 cr.

In this postdoctoral seminar course, relevant readings in the periodontal literature relating to specific topics are assigned and critically discussed.

## DPER 9304 Periodontal Case Presentations Seminar 3B 1.8 cr.

In this postdoctoral course, residents prepare and present a complete documentation database, diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology.

## DPER 9305 Periodontal Research 7 3.0 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

# DPER 9306 Periodontics Clinical Teaching 2C 1.0 cr.

Postdoctoral periodontics students gain experience in instructing dental and hygiene students after receiving instruction in the basics of didactic and clinical teaching.

# DPER 9308 Ethics and Practice Management 3 0.6 cr.

This course provides the periodontal resident with the information needed for successful personal, financial, and practice management. Curriculum will rotate over a three-year cycle to include personal financial management, human resources, accounting, legal and dental practice management.

## **DPER 9315 Interdisciplinary Course 3C**

Seminar includes residents from GPR and Graduate Periodontics and GPR periodontics and prosthodontics faculty to share clinically relevant multidisciplinary information. Patient diagnostic evaluations and treatment plans are evaluated in an interactive environment. Topics involving new advancements are presented and discussed.

#### **DPER 9316 Pharmacology VI** 0.8 cr.

Review General Principles: Current pharmacology for the medical management of pain, infection, & selected systemic diseases: & adverse drug events. Based on top 200 drugs dispensed by US community pharmacies for prevention, diagnosis, and treatment of disease, reference/dent.

### MS DENTISTRY CURRICULUM

(The MS Dentistry curriculum is subject to change without notice.)

## **Fall Semester**

## **DSGD 5105 Research Methodology & Biostatistics**

2.0 cr.

This graduate course in dentistry is an in-depth study of scientific research methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of a study and carryout a scientific research project.

## **DSGD 5205 Research Methodology & Biostatistics 2**

This graduate course in dentistry is an advanced in-depth study of scientific reasearch methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of a study. In addidion this course requires the student to prepare a research proposal.

### **DSGD 5311 Scientific Writing and Evaluation**

1.5 cr.

This graduate course in dentistry is an in-depth study of scientific writing to prepare the student to evaluate the literature as well as to prepare a scientific manuscript for publication.

# **DSGD 5331 Diagnosis and Treatment of Craniofacial Pain**

1.5 cr.

This graduate course in dentistry studies the structure and function of the cranio-cervical region and stomatognathic system. Diagnosis and management of abnormal function will be emphasized relative to each specific specialty area.

## **DSGD 5341 Fundamentals of Teaching / Communication**

This graduate course in dentistry prepares students to communicate effectively with patients and their families to enhance treatment planning dialogues, facilitate case presentation and acceptance, and encourage behavioral changes toward attaining and maintaining systemic and oral health.

## **DSGD 5344 Advanced Radiology and Radiographic Interpretation**

1.5 cr.

This graduate course in dentistry in oral and maxillofacial radiology includes lectures and case studies in radiation physics, radiation biology, radiation hygiene and radiographic techniques. In addition, this course will provide information on advanced imaging modalities and interpretative skills.

# **DSGD 6114 Advanced Oral Biology**

This graduate course in dentistry is an advanced study of clinical oral pathology, bone biology, and microbiological aspects of the oral disease processes and conditions.

# **DSGD 6115 Biomechanics, Bioengineering and Biomaterials**

1.1 cr.

This graduate course in dentistry studies the biological aspects of the biocompatibility of synthetic and biologically altered materials with tissues and cells of the human body. This will include the study of treatment tools and procedures and their effect on the Dentoalveolar structures.

## **DSGD 6201 Ethics, Practice Management & Jurisprudence**

This graduate course in dentistry is an in-depth study of ethics, practice management, and jurisprudence as it relates to clinical practice. The course includes advanced study and lectue in practice financial and management areas with specific experiences varying with the different specialty areas.

# **DSGD 6209 Advanced Head & Neck Anatomy**

1.6 cr.

This graduate course in dentistry is an advanced study of head & neck anatomy that is relevant to the dental specialist. It includes both actual & radiographic anatomical identification.

## **ORTHODONTICS CERTIFICATE PROGRAM**

(The Orthodontics Certificate curriculum is subject to change without notice.)

# FIRST YEAR, Fall Semester

## DSOR 5101 Orthodontics 101 - Boot Camp

4.3 cr.

This post-doctoral course is an intense review of the breadth and scope of orthodontics including growth and development and the different clinical orthodontic modalities.

## **DSOR 5102 Dentofacial Growth and Development 1**

2.0 cr.

This post-doctoral course is an in-depth study of human growth and development that includes basic embryology of the head and neck, growth theories and facial and dental arch changes throughout human life.

## **DSOR 5103 Diagnosis and Treatment Planning 1**

2.0 cr.

This post-doctoral course is an in-depth study of advanced orthodontic data gathering and interpretation as used in orthodontic diagnosis and treatment planning.

## **DSOR 5104 Biomechanics 1**

4.0 cr.

This post-doctoral course is an in-depth, advanced study of orthodontic biomechanical systems and their effect on the craniofacial and dental structures. Included in this course are the protocols required to treat both skeletal and dental malocclusions.

## **DSOR 5105 Research Methodology and Biostatistics 1**

2.0 cr.

This post-doctoral course is an in-depth study of scientific research methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of a study.

## **DSOR 5107 Treatment Planning 1**

4.0 cr

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

## **DSOR 5108 Current Literature Review 1**

1.0 cr.

Course is the study, analysis and discussion of journal articles and topics that are prominent in orthodontics within the previous year. Post-doctoral students critically review and analyze the articles to determine advances in the art and science of orthodontics.

## **DSOR 5111 History of Orthodontics & Dentofacial Orthopedics**

1.0 cr.

This post-doctoral course is an in-depth study of the development of orthodontic treatment and of orthodontics as a specialty, including the study of prominent figures that played a part in specialty and treatment development.

DSOR 5841 Research 1 0.4 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## **DSOR 5931 Clinical Orthodontics 1**

7.8 cr.

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

## FIRST YEAR, Spring Semester

# **DSOR 5202 Dentofacial Growth and Development 2**

2.5 cr.

Prereq: DSOR5102

This post-doctoral course is an in-depth study of human growth and development that includes the affects of treatment on growth and development.

## **DSOR 5203 Diagnosis and Treatment Planning 2**

2.5 cr.

Prereq: DSOR5103

This post-doctoral course is a continuation of the in-depth study of advanced orthodontic data gathering and interpretation as used in orthodontic diagnosis and treatment planning.

# **DSOR 5204 Biomechanics 2**

5.0 cr.

Prereq: DSOR5104

This post-doctoral course is an in-depth, advanced study of orthodontic biomechanical systems and their effect on the craniofacial and dental structures. Included in this course are the protocols required to treat both skeletal and dental malocclusions.

## **DSOR 5205 Research Methodology & Biostatistics 2**

2.5 cr.

Prereq: DSOR5105

This post-doctoral course is an in-depth study of scientific research methods, study design and organization, data gathering, and the biostatistical tools required to analyze the results of the study.

## **DSOR 5207 Treatment Planning 2**

5.0 cr.

Prereq: DSOR5107

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

# **DSOR 5208 Current Literature Review 2**

1.3 cr.

Prereq: DSOR5108

Course is the study, analysis and discussion of journal articles and topics that are prominent in orthodontics

within the previous year. Post-doctoral students critically review and analyze the articles to determine advances in the art and science of orthodontics.

## **DSOR 5321 Orthognathic Surgical Treatment**

2.5 cr.

Review of surgical procedures pertaining to combined orthognathic surgical cases.

DSOR 5842 Research 2 0.8 cr.

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

### **DSOR 5932 Clinical Orthodontics 2**

9.5 cr.

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

## FIRST YEAR. Summer Semester

# **DSOR 5211 Treatment in Preadolescent Children**

This post-doctoral course is a study of the orthodontic and pediatric care of the preadolescent patient, to include preventative and Phase I patient care.

#### **DSOR 5304 Biomechanics 3**

1.5 cr.

Prereq: DSOR5104, DSOR5204

This post-doctoral course is an in-depth, advanced study of orthodontic biomechanical systems and their effect on the craniofacial and dental structures. Included in this course are the protocols required to treat both skeletal and dental malocclusions.

## **DSOR 5307 Treatment Planning 3**

2.0 cr.

Prereg: DSOR5107, DSOR 5207

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

## **DSGD 5331 Diagnosis and Treatment of Craniofacial Pain**

1.5 cr.

This course is a review of treatment and outcomes for TMJ dysfunction treatment & nontreatment.

# DSGD 5341 Fundamentals of Teaching/Communication

0.7 cr.

This graduate course in dentistry prepares students to communicate effectively with patients and their families to enhance treatment planning dialogues, facilitate case presentation and acceptance, and encourage behavioral changes toward attaining and maintaining systemic and oral health.

# **DSGD 5344 Advanced Radiology & Radiological Interpretation**

This graduate course in dentistry in oral and maxillofacial radiology includes lectures and case studies in radiation physics, radiation biology, radiation hygiene and radiographic techniques. In addition, this course will provide information on advanced imaging modalities and interpretative skills.

## DSOR 5843 Research 3

1.7 cr.

Prereq: DSOR5841, DSOR5842

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## **DSOR 5933 Clinical Orthodontics 3**

5.5 cr.

Prereg: DSOR5931, DSOR5932

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

## SECOND YEAR, Fall Semester

# **DSOR 6101 Implants in the Orthodontic Patient**

1.0 cr.

This post-doctoral course is an in-depth study of the use of implants in patients both for restorative dentistry and as orthodontic anchorage.

## **DSOR 6107 Treatment Planning 4**

4.0 cr.

Prereg: DSOR5107, DSOR5207, DSOR5307

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Postdoctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

### **DSOR 6108 Current Literature Review 4**

Prerea: DSOR5108, DSOR5208, DSOR5308

Course is the study, analysis and discussion of journal articles and topics that are prominent in orthodontics within the previous year. Post-doctoral students critically review and analyze the articles to determine advances in the art and science of orthodontics.

### **DSOR 6111 Periodontic/Orthodontic Treatment**

1.0 cr.

1.0 cr.

This post-doctoral course is a study of the interdisciplinary care of the patient with periodontal and orthodontic needs and includes a review of the literature in conjunction with a periodontist.

## **DSGD 6201 Ethics, Practice Management, Jurisprudence**

2.0 cr.

This post-doctoral course is an in-depth study of ethics, managing a practice and jurisprudence as it relates to the clinical practice of orthodontics.

#### **DSOR 6206 Dento/Craniofacial Anomalies**

1.0 cr.

This post-doctoral course is a study of dental and craniofacial anomalies and the orthodontic and surgical treatment of patients. This includes both seminars, case-based and case-presentation study.

## **DSOR 6844 Research 4**

2.2 cr.

Prereq: DSOR5841, DSOR5842, DSOR5843

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## **DSOR 6934 Clinical Orthodontics IV Fall**

9.9 cr.

Prereg: DSOR5931, DSOR5932, DSOR5933

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

# SECOND YEAR, Spring Semester

### **DPER 8317 Oral & Maxillofacial Pathology**

1.3 cr.

This course is designed to prepare residents to recognize, analyze and appreciate primary/secondary disease conditions of the oral & paraoral regions. Reflects an emphasis on the understanding of basic and fundamental biologic aberrations and an integration of these concepts into a meaningful approach to diagnostic pathology.

# **DSOR 6207 Treatment Planning 5**

5.0 cr.

Prereq: DSOR5107, DSOR5207, DSOR5307, DSOR6107

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

## **DSOR 6209 Surgical Anatomy & Osteology**

1.6 cr.

This graduate course in dentistry is an advanced study of head & neck anatomy that is relevant to the dental specialist. It includes both actual & radiographic anatomical identification.

## DSOR 6845 Research 5

2.4 cr.

Prereq: DSOR5841, DSOR5842, DSOR5843, DSOR6844

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## **DSOR 6935 Clinical Orthodontics 5**

11.1 cr.

Prereg: DSOR5931, DSOR5932, DSOR5933, DSOR6934

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

## **DSOR 6936 Review for American Board Examination**

1.2 cr.

This postgraduate course in dentistry is an advanced review course in published orthodontic research studies and techniques in preparation for taking the written portion of the American Board of Orthodontics written examination. Restrictions: Successful completion of Year 1 of the postgraduate Program in Orthodontics.

## THIRD YEAR, Summer Semester

## **DSGD 7311 Scientific Writing & Evaluation**

1.5cr.

This post-doctoral course is an in-depth study of scientific writing to prepare the student to evaluate the literature as well as to prepare a scientific manuscript for publication

# **DSOR 7107 Treatment Planning 6**

Prereg: DSOR5107, DSOR5207, DSOR5307, DSOR6107, DSOR6207

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

## **DSOR 7108 Current Literature Review 6**

0.7 cr.

2.2 cr.

Prereg: DSOR5108, DSOR5208, DSOR 5308, DSOR6108, DSOR 6208

Course is the study, analysis and discussion of journal articles and topics that are prominent in orthodontics within the previous year. Post-doctoral students critically review and analyze the articles to determine advances in the art and science of orthodontics.

## **DSOR 7112 Orthodontic Clinical Teaching 2**

0.9 cr.

This post-doctoral course requires the student to teach basic orthodontic diagnostic and treatment techniques to the predoctoral dental student.

DSOR 7846 Research 6 1.7 cr.

Prereg: DSOR5841, DSOR5842, DSOR5843, DSOR6844, DSOR6845

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

# **DSOR 7936 Clinical Orthodontics 6**

6.4 cr.

Prereg: DSOR5931, DSOR5932, DSOR5933, DSOR6934, DSOR6935

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

### **DSOR 7938 Clinical Problems 1**

0.7 cr.

Course is a case-based course to study clinical problems encountered in the practice of orthodontics by the orthodontic specialist. It requires the student to analyze and then present the records of patients who encountered less than ideal results during treatment.

# THIRD YEAR, Fall Semester

# **DSOR 7207 Treatment Planning 7**

4.0 cr.

Prereg: DSOR5107, DSOR5207, DSOR5307, DSOR6107, DSOR6207, DSOR7107

This post-doctoral course is the case-based study of advanced orthodontic treatment planning. Post-doctoral students are required to present patient diagnoses and proposed treatment plans for faculty and student discussion, to include treatment modality presentations by students.

## **DSOR 7208 Current Literature Review 7**

1.0 cr.

Prereq: DSOR5108, DSOR5208, DSOR 5308, DSOR 6108, DSOR6208, DSOR7108

Course is the study, analysis and discussion of journal articles and topics that are prominent in orthodontics within the previous year. Post-doctoral students critically review and analyze the articles to determine advances in the art and science of orthodontics.

## **DSOR 7212 Orthodontic Clinical Teaching 3**

This post-doctoral course requires the student to teach basic orthodontic diagnostic and treatment techniques to the predoctoral dental student.

#### DSOR 7847 Research 7 1.7 cr.

Prereg: DSOR5841, DSOR5842, DSOR5843, DSOR6844, DSOR6845, DSOR7846

Course requires student to select a research topic, define a research question, do a literature search on the topic, organize a research project, carry out the project, collect and analyze the results, and write a publishable manuscript on the project.

## **DSOR 7937 Clinical Orthodontics 7**

9.9 cr.

Prereg: DSOR5931, DSOR5932, DSOR5933, DSOR6934, DSOR6935, DSOR7936

This post-doctoral course involves the advanced treatment of orthodontic problems and patient care.

Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

# **DSOR 7939 Clinical Problems 2**

1.0 cr.

Course is a case-based course to study clinical problems encountered in the practice of orthodontics by the orthodontic specialist. It requires the student to analyze and then present the records of patients who encountered less than ideal results during treatment.

# **DSOR 7940 Orthodontic Retention I**

3.0 cr.

Retention techniques, clinical studies in retention, and study of post-treatment changes in orthodontic patients. Prereq: Successfully completing Years 1 and 2 of the postgraduate program in Orthodontics and Dentofacial Orthopedics.

## THIRD YEAR, Spring Semester

## **DSOR 7304 Treatment Planning 8**

2.0 cr.

In this postdoctoral course, residents prepare and present a complete data base, diagnosis/prognosis, treatment plan, treatment procedures, and evaluation of treatment results in formal case presentations simulating the oral examination for the American Board of Periodontology. (Part 2 of two-semester course)

## **DSOR 7300 Current Literature Review 8**

0.5 cr.

In this postdoctoral course, students receive experiences with all accepted methods of periodontal treatment, dental implantology, and periodontal plastic procedures.

# **DSOR 7312 Orthodontic Clinical Teaching 3**

0.3 cr.

This post-doctoral course requires the student to teach basic orthodontic diagnostic and treatment techniques to the predoctoral dental student.

DSOR 7848 Research 8

Postgraduate course study requiring student to select research topic, define research question, do literature search on the topic, organize research project, carry out project, collect and analyze the results and write a publishable manuscript on the project.

### **DSOR 7934 Clinical Orthodontics 8**

This postgraduate course involves the advanced treatment orthodontic problems and patient care. Supervision is provided by educationally qualified orthodontists to provide high quality and efficient clinical patient care.

**DSOR 7941 Retention 2** 2.0 cr.

Retention techniques, clinical studies in retention, and study of post-treatment changes in orthodontic patients. Prereg: Successfully completing years 1 and 2 of the postgraduate program in Orthodontics and Dentofacial Orthopedics and successful completion of the DSOR 7940.