## PREVENTIVE AND RESTORATIVE DENTISTRY (PRD)

### Department Chairperson
Homayon (Homer) Asadi  
Associate Professor of Biomedical Sciences

### Faculty

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BS, University of the Pacific, Biology, 2003  
DDS, University of the Pacific, Dentistry, 2006  
National Academy of Sports Medicine, Exercise Physiology, Certified  
Personal Trainer, 2012  
Women's Fitness Specialist (WFS), National Academy of Sports Medicine, Exercise Physiology for Women, 2014

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Certificate, University of Illinois at Chicago, College of Dentistry, Operative Dentistry Program, 2004  
DDS, University Of Illinois at Chicago, Dentistry, 2009

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DDS, University of Los Andes, Venezuela, Dentistry, 1993  
MS, University of Iowa, Operative Dentistry, 2002

#### B

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American Board of Prosthodontics, Diplomate, 1987  
American River College, AA Pre-Dental, 1967  
DDS, UCSF School of Dentistry, Dentistry, 1971  
Wadsworth VA Medical Center, Certificate in Fixed Prosthodontics, 1981

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DDS, College of Physician and Surgeons, University of the Pacific, Dentistry, 1967

#### C

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V.A. Medical Center, San Francisco, General Practice Residency, 1986

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DDS, University of Southern California School of Dentistry, Dentistry, 1982

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DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, Dental Surgery, 2009  
MS, University of the Pacific, Pharmacy and Chemistry, 2007  
Other, University of the Pacific, Arthur A. Dugoni School of Dentistry, Certificate: Adv Education in General Dentistry, 2011

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BS, University of California of San Diego, General Biology, 2011  
DDS, University of the Pacific, Dentistry, 2016

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DDS, UOP Dental, DDS, 2016

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Chanute Air Force Base, Air Force General Practice Residency, 1983  
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Petersen Area Dental Laboratory, Prosthodontic Fellow Dental Laboratory, 1996  
Santa Rosa Junior College, 1977  
University of California, Davis, 1978

#### D

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#### E

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Georgetown, Graduate Biology, 1974
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New York University, Prosthodontics Certificate of Completion, 1998
Pikos Implant Institute, Advanced Bone Grafting Procedures I II, 2009
Private Zahn Klinik Schloss Schellestein with Prof. Fouad Khoury, Olsberg, Germany, Bone augmentation Procedures soft tissue management, 2008

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ADEA Leadership Institute, 2008
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DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, Dentistry, 2013

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University of North Carolina, Institute for Teaching and Learning, 2007  
University of Washington, Summer Institute in Clinical Dental Research Metho, 2006

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Foundation for Advanced Continuing Education, Certificate of Completion, 1977
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U.S. Navy Dental Internship, Certificate of Completion, 1969

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AEGD, Case Western Reserve University, AEGD, 1996
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Indiana University, Biology - Undergraduate, 1985
Indiana University, School of Dentistry, 1987

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University of Richmond, 1973

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DDS, University of the Pacific Arthur A. Dugoni, 2016

Adjunct Faculty

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Foothill College, Sciences, 1993

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BDS, R. V. Dental College, Dentistry, 2003
DMD, Boston University Goldman School of Dental Medicine, Dentistry, 2007
MS, Texas AM College of Dentistry, Prosthodontics, 2018

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CPT, National Academy of Sports Medicine, Exercise Physiology, 2009
DDS, Doctor of Dental Surgery, University of the Pacific, Dentistry, 1991
MA, University of the Pacific, Master of Arts in Educational Psychology, 1994

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University Of Southern California, Los Angeles, Chemistry, 1982

H

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BS, UOP Bachelor of Science Biology, 1966
Preventive and Restorative Dentistry (PRD)

Course Descriptions

Predoctoral Courses

PRD 131. IPS I: Fundamentals in Restorative Dentistry. 15 Units.
Students will learn basic concepts of dental anatomy, tooth morphology, dental materials, bonding, occlusion, and cariology; caries risk assessment and the ADA classification of dental caries; diagnosis and treatment planning for restorative dentistry; treatment planning of restorations; rationale and criteria for restorations; introduction to implant and removable dentistry; fabrication of articulated diagnostic casts from preliminary alginate impressions; CAD/CAM and digital dentistry; arbitrary and the ois dento-facial analyzer mounting techniques; color and share selections, restoration of damaged teeth with fillers and/or post placement in endodontically treated teeth; preparation design and execution of full veneer, monolithic, zirconia, lithium disilicate, porcelain-fused-to-metal and porcelain-fused-to-zirconia crowns; anterior and posterior fixed prostheses (bridges); fabrication of provisional restorations utilizing direct and indirect techniques for single crowns and provisional fixed prostheses (bridges) based on knowledge of principles of treatment planning, path of insertion, resistance and retention forms, and fabrication of provisional restorations.

PRD 134. Professionalism & Dentistry. 1.5 Unit.
This course provides the student with an understanding of dentistry as a profession, including multi-disciplinary skills and all relevant ethical concepts and decision-making models to deal effectively with typical situations in patient care. It presents information from historical and contemporary perspectives with an emphasis on the responsibility of the student dentist as a member of the profession. Humanism, ethics, communication skills, ergonomics, self-care, and stress management are also discussed.

PRD 137. Local Anesthesia. 1 Unit.
Students review basic anesthesia delivery techniques and apply them to a clinical situation. Students will learn new injection technique and how to overcome difficulties in mandibular anesthesia. In the self-study component, students will conduct independent research and summarize their findings in writing. (Quarter 4).

PRD 138. Advanced Restorative Technique. 0.5-2 Units.
This hands-on course, referred to as "A.R.T" block, utilizes extracted human teeth to simulate a multitude of clinical procedures. Students will perform advanced techniques focused on adhesive dentistry and digital dentistry. (Quarter 4.).

PRD 139. Clinical Transitions. 0.5-1 Units.
A hands-on course focused on caries detection evaluation and removal techniques in extracted human teeth. Students will also participate in seminars that highlight Dugoni's clinical process and procedures relating to reconstructive dentistry. (Quarter 4.).

PRD 144. Professionalism & Dentistry II. 2 Units.
This course provides the student with a deeper understanding of dentistry as a profession, including multi-disciplinary skills and all relevant ethical concepts and decision-making models to deal effectively with typical situations in patient care. It is based on foundational concepts presented in PRD 134, and introduces normative principles and case-based discussions to simulate application to patient care.
PRD 146. Integrated Preclinical Technique I: Direct Restorative. 9 Units.
This course teaches students to prepare teeth for Class I, II, III, IV and V cavity preparations for filling with amalgam and composite restorative materials. Students are taught a range of techniques depending on the extent of caries, from minimally invasive to traditional amalgam preparations. Other subjects covered include the use of liners, matricing systems, and buildup materials. Students work in the simulation clinic on plastic pontodont teeth in a mannequin and are evaluated with technique practical examinations.

PRD 147. Integrated Preclinical Technique I: Indirect Restorative. 10 Units.
Students learn laboratory skills to simulate reconstructive dentistry procedures as they relate to a "family" of patient cases. Starting with dental anatomy wax ups and all-ceramic preparations and progressing through PFM and gold and partial coverage restorations, an emphasis is on conservation of tooth structure and maintaining or enhancing esthetics. Students learn single and multiple tooth rehabilitation as projects increase in complexity throughout the year and culminate in treatment planning in preparation for digital dentistry (CAD/CAM). Ample time is spent on the adhesive protocols for cementation. Related topics addressed are post and core replacement, laboratory skills, and general dental procedures such as impression taking and model work.

PRD 151. Integrated Preclinical Concepts I: Capstone. 2 Units.
As a component of the Integrated Preclinical Preventive and Restorative Dentistry curriculum, students learn how to treat an integrated Posterior Restorative case and an Anterior Restorative case. Students are introduced to the concepts of a Smile Design, Esthetic wax-up, Core build-up, Lithium Disilicate crown prep, provisional and a final impression of each case. All-ceramic restorations are emphasized in later weeks with an emphasis on conservation of tooth structure and maintaining or enhancing esthetics is woven through all projects. Cases increase in complexity throughout the quarter and treatment planning accompanies all projects. Ample time is spent on the adhesive protocols for Restoration Cementation. Related topics included in this component are Post and Core placement, laboratory skills, general dental procedures such as Impression-taking and model work and shade selection in Restorative Dentistry. Lithium-Disilicate veneer preps and provisional restorations are also taught during this course. Finally, an integrated OSCE-type multiple-choice exam is given to help evaluate student competency in the concepts of Preventive and Restorative Dentistry. (Quarter 4).

PRD 155. Integrated Preclinical Technique I: Capstone. 2-3 Units.
As a component of the Integrated Preclinical Preventive and Restorative Dentistry curriculum, students will be evaluated on their mastery of laboratory skills and simulation of Restorative Procedures presented in this course. Cases increase in complexity throughout the quarter and treatment planning accompanies all projects. Students simulate the treatment of an integrated Posterior and Anterior case utilizing the principles and techniques taught in the Dental Anatomy, Direct and Indirect Restorative Dentistry courses in Quarter One through Three. Students perform a Smile Design on their simulated patient, prepare teeth #6-11 for Lithium Disilicate Porcelain Veneers and create Provisional (temporary) Restorations. An All-ceramic Onlay preparation and Provisional are also fabricated. A Restoration shade exercise is completed. During the last week of this course, the students remove the dental material Gutta-Percha, from an endodontically-treated tooth, create a post space and cement a Fiber Post utilizing the Prelude Bonding System and Rock-core build-up material. (Quarter 4).

PRD 172. Fundamentals and Application of Local Anesthesia. 2 Units.
In this course students will learn and apply basic techniques and fundamentals of local anesthesia, and discuss mandibular and maxillary difficulties in anesthesia and pain management. Knowledge gained in this course will help students appropriately apply current anesthesia concepts to general dentistry.

PRD 173. Integrated Preclinical Concepts I: Direct and Indirect Restorative. 7 Units.
This course introduces students to operative dentistry, dental anatomy, occlusion, and fixed prosthodontics in a comprehensive, integrated format with an emphasis on clinical applications. Foundational knowledge of direct and indirect restorative materials is presented. Indications and principles of preparations for restoring teeth with amalgam and composite resins, including techniques for placement of these direct restorations are introduced. Additionally, correct ergonomics for a dental practitioner, hand piece techniques, rubber dam application and tooth morphology are covered. Sequencing treatment is incorporated through the use of simulated clinical patient cases. Clinical photography with a hands-on training session is taught. The rationale and criteria for full cast gold and ceramic crowns, including the preparation designs for individual teeth and fixed partial dentures is introduced. Traditional and digital impression techniques and provisional fabrications are also taught. Emphasis is placed on the development of hand skills and self-evaluation of the student’s own work. Development of critical thinking skills is achieved through a literature review project. (IDS Quarters 1 & 2.).

PRD 174. Integrated Preclinical Concepts I: Advanced Direct and Indirect Restorative. 2 Units.
The second course of the series continues with the integration of the disciplines of operative dentistry, fixed prosthodontics, and removable prosthetics. Advanced restorative procedures, direct and indirect esthetic posterior restorations, and anterior esthetic reconstruction by creating a smile design and fabricating indirect porcelain veneers are covered. Advanced concepts in occlusion are introduced using wax up projects. Complex multi-disciplinary simulated cases are introduced where treatment planning and sequencing is reinforced. Digital dentistry advanced concepts such as CAD/CAM and Lasers are introduced to the students, which includes hands-on training sessions. Placement of fiber posts on an endodontically treated tooth is covered. Emphasis is placed on the student’s ability to apply principles taught in the first two quarters to simulated clinical situations. (IDS Quarter 3.).

PRD 175. Integrated Preclinical Technique I: Direct and Indirect Restorative. 8 Units.
This course introduces students to operative dentistry, dental anatomy, occlusion, and fixed prosthodontics in a comprehensive, integrated format with an emphasis on clinical applications. Foundational knowledge of direct and indirect restorative materials is presented. Indications and principles of preparations for restoring teeth with amalgam and composite resins, including techniques for placement of these direct restorations are introduced. Additionally, correct ergonomics for a dental practitioner, hand piece techniques, rubber dam application and tooth morphology are covered. Sequencing treatment is incorporated through the use of simulated clinical patient cases. Clinical photography with a hands-on training session is taught. The rationale and criteria for full cast gold and ceramic crowns, including the preparation designs for individual teeth and fixed partial dentures is introduced. Traditional and digital impression techniques and provisional fabrications are also taught. Emphasis is placed on the development of hand skills and self-evaluation of the student’s own work. (IDS Quarters 1 & 2.).
PRD 176. Integrated Preclinical Technique I: Advanced Direct and Indirect Restorative. 6 Units.
The second course of the series continues with the integration of the disciplines of operative dentistry, fixed prosthodontics, and removable prosthodontics. Advanced restorative procedures, direct and indirect esthetic posterior restorations, and anterior esthetic reconstruction by creating a smile design and fabricating indirect porcelain veneers are covered. Advanced concepts in occlusion are introduced using wax up projects. Complex multi-disciplinary simulated cases are introduced where treatment planning and sequencing is reinforced. Digital dentistry advanced concepts such as CAD/CAM and Lasers are introduced to the students, which includes hands-on training sessions. Placement of fiber posts on an endodontically treated tooth is covered. Emphasis is placed on the student's ability to apply principles taught in the first two quarters to simulated clinical situations. (IDS Quarter 3).

PRD 230. Integrated Preclinical Concepts II: Removable Prosthodontics. 3 Units.
This didactic course provides students with the foundational knowledge in removable prosthodontics needed to build a strong foundation for critical assessment, evidence-based practice, and lifelong learning in the dental profession. Formative and summative assessment will be used frequently to appraise students' grasp of principles related to the partially edentulous and fully edentulous patient. Course material includes the full scope of removable prosthodontic treatment for partially and completely edentulous patients, including patho-physiology of tooth loss; diagnosis and treatment planning for transitional and definitive removable dentures; fabrication of partial and complete dentures; follow-up, recall, and problem-solving for patients with removable dentures. (Quarters 5 & 6, IDS Quarters 1 & 2).

PRD 231. Integrated Preclinical Concepts II: Occlusion. 1-2 Units.
This course is part of the Integrated Preclinical Transition for second year DDS students and provides a broad overview of occlusion combined with an occlusion philosophy for the students to utilize as "safe beginners" in the student clinic and upon graduation. The curriculum is designed to develop the students' occlusal awareness and for students to know when to refer more complex occlusal problems. The concept of "optimal occlusion" is taught as a model to utilize when designing new restorations and larger restorative cases. Topics include temporomandibular joint and muscle anatomy, anterior guidance, occlusal exam and TMJ analysis, inter-occlusal records, centric relation and taking a centric relation record, VPS final impression, marking media, mandibular movements, red flags, parafunction and levers, splint types, esthetic and functional wax-up, posterior wax-up, the smile design process, custom incisal guide table and occlusal equilibration. (Quarter 5).

PRD 232. Integrated Preclinical Concepts II: Implant Dentistry. 1 Unit.
The concepts part of the pre-clinical Implant Dentistry course will focus on introducing implant dentistry in a streamlined fashion to the pre-doctoral students. Lecture topics will include Introduction to Implants, Diagnostic Regimen, Biomechanics of Loading, Virtual Imaging, Soft Tissue and Hard tissue grafting for esthetics, Restorative Armamentaria, Implant Delivery and Maintenance, Implant Complications and Implants for Edentulous patients. The OSCE will facilitate critical thinking and integrate content from Occlusion. (Quarter 6, IDS Quarter 2).

PRD 233. Integrated Preclinical Concepts II: Comprehensive Principles in Dentistry. 3 Units.
The Concepts part of this pre-clinical course is a blend of established routine dental procedures concerned with Adhesive Dentistry, Veneer Preparation and Cementation, Ceramic Design for Inlay/Onlay Preparation, Erosion Etiology and Treatment. This is combined with an understanding of Basic Sleep principles, etiology and treatment. Block rotations are presented covering Dental Lasers, Laboratory Questions/Answers and Restorability of Teeth. Finally, the students are introduced to CAD CAM Dental Technology, CAD CAM case selection, materials, workflow of CAD CAM Restorations, including design, mill, stain/glaze and cementation of a full ceramic restoration. The students will participate in Evidence Based Research in a seminar format and present to their peers. (Quarter 7).

PRD 235. Integrated Preclinical Technique II: Removable Prosthodontics. 5 Units.
In this course, students develop laboratory and clinical skills as related to removable prosthodontics. In the partially edentulous patient, students will gain technical experience with tooth replacement with a removable prosthesis. Students will apply biomechanical principles and fundamentals of survey and prosthesis design, including base, clasp, rest, minor connector, and major connector designs. For edentulous patients and those patients with hopeless dentition, students will learn the basic clinical and laboratory phases of complete denture fabrication including diagnosis, pre-prosthetic surgery, tissue conditioning, impression, cast fabrication, record base/rim, occlusal records, chair-side esthetic arrangement, articulator mounting, anterior artificial tooth arrangement, trial denture try-in, denture processing and finishing, denture insertion, prosthetic home care patient education, and prosthetic follow-up and recall, including relining/repair and laboratory communication. Students will prescribe optimal clinical materials to be used in prosthesis fabrication and diagnose biomechanical problems from simulated case scenarios. (Quarters 5 & 6, IDS Quarters 1 & 2).

PRD 236. Integrated Preclinical Technique II: Occlusion. 1 Unit.
This course is part of the Integrated Preclinical Transition for second year DDS students and provides the laboratory and clinic technique knowledge, supporting the concepts learned in PRD 231. This course focuses on treatment of the dentate patient. Students gain clinical experience working on a partner in occlusal exam and TMJ analysis, centric relation record, PVS final impression and the Kois Dento-Facial Analyzer record. The students will gain knowledge in centric relation vs maximum intercuspation theories. Other learned techniques include the rehearsal of a smile design, a custom incisal guide table, and an occlusal adjustment from CR to MI. (Quarter 5).

PRD 237. Integrated Preclinical Technique II: Implant Dentistry. 1 Unit.
The technique part of the course will focus on lab exercises that will train the students to be competent in treating implant patients on the clinic floor. They will learn to surgically place an anterior and a posterior implant on a plastic model, learn the significance of a surgical stent and fabricate a surgical stent, learn to take closed and open tray impressions for implants, learn to fabricate a screw retained implant temporary crown and learn to convert a lower complete denture into an Overdenture. The students will learn the format for the Implant Seminar for single and multiple teeth. The quizzes are embedded in clinical videos to improve students’ understanding of application of implant concepts in patient care. (Quarter 6, IDS Quarter 2).
PRD 238. Integrated Preclinical Technique II: Comprehensive Principles in Dentistry. 3 Units.
The Technique part of this course will focus on the following laboratory experiences: Understanding the basic laser concepts and safety protocol in using the instrument to cut various materials. Hands-on experience of a CAD CAM system to scan, design and mill a full ceramic restoration. Experience firing and customizing with principles of esthetics of custom staining and glazing a full ceramic restoration. Cementation/Bonding of a final full ceramic restoration Design and prepare a partial ceramic restoration. Hands on Veneer Preparations and methods of Cementation. Experience the sectioning of Crown Removal and Porcelain Repairs. Students will diagnose and restore patient’s models following an approved treatment plan exhibiting an ideal mode of form and function. (Quarter 7).

PRD 239. Integrated Preclinical Technique II: Clinical Occlusion. 2 Units.
This course is about the occlusion of the natural teeth. The course will also include comparisons between the Occlusion of the natural teeth with the occlusion of implant-supported teeth and the occlusion of removable dental prosthetics. Lectures in concepts will cover principles of occlusion and describe clinical and laboratory technique. In the technique component, students will be evaluated on their mastery of clinical and laboratory skills. Technique will include two parts. The first is the occlusal aspects of treating a tyndol patient needing anterior esthetic restorations. The second involves the records, fabrication and delivery of an occlusal stabilization splint to a class-mate “patient”. The course provides a broad overview of occlusion combined with an occlusion philosophy for students to utilize as “safe beginners”. The curriculum is designed to develop the students’ occlusal awareness and for students to know when to refer more complex occlusal problems. The concept of “optimal occlusion” is taught as a model to utilize when designing new restorations and larger restorative cases. (IDS Quarter 3).

PRD 245. Integrated Preclinical Technique II: Applied Occlusion. 1 Unit.
This Course is about the Occlusion of the natural teeth and is the continuation of PRD236. The course will also include comparisons between the Occlusion of the natural teeth with the Occlusion of implant-supported teeth and the Occlusion of Removable Dental Prosthetics. In this technique course, students will be evaluated on their mastery of clinical and laboratory skills. The course focuses on treatment of the dentate patient. In the previous quarter, the students gained clinical experience in occlusal principals working and record collection on student partners. During this course, each student will participate in the clinical delivery of an occlusal stabilization splint. The splint project began in the previous quarter PRD236 and will now be completed due to the time needed by the lab to process the splints. (Quarter 6).

PRD 277. Local Anesthesia. 1 Unit.
Students review basic anesthesia delivery techniques and apply them to a clinical situation. Students will learn new injection technique and how to overcome difficulties in mandibular anesthesia. In the self-study component, students will conduct independent research and summarize their findings in writing. (2 hours lecture, 6 hours clinical rotation, 10 hours self-study. Quarters 5-7.).

PRD 279. Clinical Restorative Dentistry I. 4-6 Units.
Study of diagnosis, treatment planning, and intracoronal dental therapy, including preparation for and restoration of teeth with cast gold and porcelain inlays and onlays, composite resins, laminates, and amalgam in comprehensive clinical dental practice. Requirements include practice of operative dentistry procedures under simulated state board examination conditions. These courses also cover the diagnosis, treatment planning, and delivery of fixed prosthetic treatment that addresses the patient’s gnathostomatic system in a comprehensive clinical dental practice. Students participate in quality assessment at clinical impression stage and at prosthesis delivery. Lab Services coordinates student dental laboratory prescriptions with private outsource laboratories. Test cases determine student competency by evaluating their ability to independently prepare a single tooth crown preparation in a specified time period. (Quarters 5-8.).

PRD 281. Dental Implants. 1 Unit.
The study of modern implant dentistry with emphasis on history, the physiology of osseous integration, treatment planning, implant surgery, fabrication of single and multiple tooth fixed implant restorations and implant-supported removable overdentures, laboratory steps, maintenance and implant problems. Hard and soft tissue augmentation procedures will be studied along with esthetic concerns. (10 hours lecture and laboratory. Quarter 8.).

PRD 378. Clinical Restorative Dentistry II. 11 Units.
Study of diagnosis, treatment planning, and intracoronal dental therapy, including preparation for and restoration of teeth with cast gold and porcelain inlays and onlays, composite resins, laminates, and amalgam in comprehensive clinical dental practice. Requirements include practice of operative dentistry procedures under simulated state board examination conditions. These courses also cover the diagnosis, treatment planning, and delivery of fixed prosthetic treatment that addresses the patient’s gnathostomatic system in a comprehensive clinical dental practice. Students participate in quality assessment at clinical impression stage and at prosthesis delivery. Lab Services coordinates student dental laboratory prescriptions with private outsource laboratories. Test cases determine student competency by evaluating their ability to independently prepare a single tooth crown preparation in a specified time period. (Quarters 9-10.).

PRD 379. Clinical Restorative Dentistry III. 12 Units.
Study of diagnosis, treatment planning, and intracoronal dental therapy, including preparation for and restoration of teeth with cast gold and porcelain inlays and onlays, composite resins, laminates, and amalgam in comprehensive clinical dental practice. Requirements include practice of operative dentistry procedures under simulated state board examination conditions. These courses also cover the diagnosis, treatment planning, and delivery of fixed prosthetic treatment that addresses the patient’s gnathostomatic system in a comprehensive clinical dental practice. Students participate in quality assessment at clinical impression stage and at prosthesis delivery. Lab Services coordinates student dental laboratory prescriptions with private outsource laboratories. Test cases determine student competency by evaluating their ability to independently prepare a single tooth crown preparation in a specified time period. (Quarters 11-12.).
PRD 396. Clinical Removable Prosthodontics. 12 Units.
The study of diagnosis, treatment planning, and removable prosthodontic
treatment that restores masticatory function and phonetics, preserves
underlying structures, results in patient comfort, and is esthetically
pleasing. Course includes practice for state board removable
prosthodontic procedures and simulated examination conditions.
(Quarters 9-12.).

Graduate Courses
PRD 484. Biomaterials I. 1 Unit.
This class focuses on restorative materials such as bonding systems,
buildup composites and materials for crown and bridge fabrication.
It also introduces new developments in biomaterial sciences. Basic
material testing principles are discussed and the material properties for
NiTi alloy used in endodontics are included. (Quarter 2.).