# PREVENTIVE AND RESTORATIVE DENTISTRY (PRD)

## Department Chairperson

**Rebecca Moazzez**
*Professor of Preventive and Restorative Dentistry*

## Faculty

Dima Abu Baker, Assistant Professor, D.D.S., University of Jordan, 2006 | M.S., Prosthodontics, King's College, London, 2009

Karina Alcala, Instructor, D.D.S., University of the Pacific, Arthur A. Dugoni School of Dentistry, 2017 | M.S., Universidad de Guadalajara, 2005

Zainab Ali-Rubaie, Assistant Professor, D.D.S., University of Baghdad, 1991

Mouhannad Almajdalani, Instructor, D.D.S., University School of Dentistry, 1991

Hussein Al-Wakeel, Assistant Professor, D.D.S., National University of Malaysia, 2010 | D.P.T., International Medical University, 2018 | M.S., University of Manchester, 2018

Shuba Anantha, Instructor, D.D.S., Government Dental College and Hospital, 2000 | D.D.S., University of Illinois at Chicago College of Dentistry, 2009

Sahar Aurangzeb, Instructor, D.D.S., University of the Pacific, Arthur A. Dugoni School of Dentistry, 2012 | B.D.S. University of the Punjab, 2000

Kalid Aziz, Associate Professor, Certificate, University of Iowa, College of Dentistry, 2002 | DDS, University of Los Andes, Venezuela, 1993 | MS, University of Iowa, 2002

Sara Baig, Instructor, D.D.S., New York University, 2025 | Biology, University of North Carolina, 2020

Rommel Bal, Instructor, D.D.S., College of Dental Surgery, Manipal University, 1999 | Mastery Program in Dental Sleep Medicine, American Academy of Dental Sleep Medicine, 2019

Curtis Barmby, Assistant Professor, CERT, Wadsworth VA Medical Center, 1981 | D.D.S., UCSF, 1971

Susan Caliri, Instructor, BS, University of San Francisco, 1977 | Certificate, V.A. Medical Center, San Francisco, 1986 | DDS, University of the Pacific, Arthur A. Dugoni School of Dentistry, 1985

Allan Capinpin, Instructor, D.D.S., University of the Pacific, Arthur A. Dugoni School of Dentistry, 1994 | Biological Sciences, University of California, Davis, 1990

Dan Capponi, Instructor, D.D.S., University of the Pacific, Arthur A. Dugoni School of Dentistry, 2002 | Biology, Saint Mary's College of California, 1998

Daniel Castagna, Associate Professor, BA, University of the Pacific, 1978 | DDS, University of the Pacific Arthur A. Dugoni School of Dentistry, 1981

Jonathan Chen, Instructor, D.D.S., Columbia University, 2024 | Neurobiology, Physiology, and Behavior, University of California, Davis, 2019

Robert Christoffersen, Professor, BA, San Francisco State University, 1963 | D.D.S., University of the Pacific, 1971 | MA, University of the Pacific, 1980

Ryan Courtin, Instructor, BS, UCLA, 2010 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2016

Joseph Crosariol , Clinical Instructor, B.Sc., University of Minnesota, 2015 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2018 | Advanced Education in General Dentistry- 1, Air Force Postgraduate Dental School 2019

Steven Curtis, Associate Professor, Certificate, Chanute Air Force Base, 1983 | Certificate, Peterson Area Dental Laboratory, 1996 | Certificate, Bethesda National Naval Dental Center, 1992 | DDS, University of California, Los Angeles, 1982

Shayan Dadgar, Clinical Instructor, B.Sc., Biochemistry, University of California, Los Angeles, 2021 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry 2024

Shahrzad Dehdari, Clinical Instructor, University of Central Florida, 1992 | D.D.S., University of the Pacific School of Dentistry, 1995

Christopher Duhn, Assistant Professor, B.Sc., University of California, Los Angeles, 2012 | Certificate, Albert Einstein Medical Center, 2016 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2015

Kenneth Dupree, Instructor, B.Sc., University of California, Davis, 1979 | D.M.D., Washington University, 1984

Sherif El- Khatib, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2020 | Dental Medicine and Surgery, Ain Shams University, 2013

Steven Elman, Instructor, B.Sc., City University of New York, 1968 | D.M.D., Tufts University School of Dental Medicine, 1972

Bernadette Fa, Professor, BS, University of the Pacific, 2003 | Certificate, National Academy of Sports Medicine, 2012 | Certificate, Women's Fitness Specialist (WFS), National Academy of Sports Medicine, 2014 | DDS, University of the Pacific, 2006

Nadia Farokhnia, Instructor, B.Sc., Obstetrics, Ahvaz Jundishapur University, 2004 I D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2020

Cody Fong, Instructor, B.Sc., Biology, Chemistry minor, University of San Francisco, 2020 I D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2024

Kelly Fong, Clinical Instructor, B.Sc., University of the Pacific, 2020 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2024

Gail Frick, Assistant Professor, Georgetown, 1974 | BS, Scripps College, 1973 | Certificate, UCLA, 1981 | DMD, TUFTS University - School of Dental Medicine, 1977

Edmond Fung, Instructor, B.Sc., Computing, Brock University, 1988 I D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1994

Praveena Ganesh, Clinical Assistant Professor, D.M.D., Tufts University School of Dental Medicine, 2005

Richard Garcia, Associate Professor, BS, University of San Francisco, 1971 | D.D.S., University of California, Los Angeles, 1975 | General

Practice Residency Completion, Veterans Administration Hospital, San Francisco, 1976

William Gardner, Instructor, B.Sc., Environmental Toxicology, University of California, Davis 1986 I D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1989

Ernest Giachetti, Assistant Professor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1971

Gilbert Grio, Clinical Instructor, B.Sc., San Jose State University, 1995 | D.D.S., University of the Pacific Arthur. A Dugoni School of Dentistry, 2003

Keith Grote, Instructor, D.M.D., Boston University Henry M Goldman School of Dental Medicine, 1996

Foroud Hakim, Associate Professor, BS, San Jose State University, 1987 | Certificate, ADEA Leadership Institute, 2008 | D.D.S., University of the Pacific, 1991 | MBA, University of the Pacific, 1999

Heidi Hausauer, Assistant Professor, VA Palo Alto, 1986 | BA, University of the Pacific, 1982 | D.D.S., University of the Pacific, 1985

Anagha Joshi, Instructor, B.D.S., University of Pune, 1998 I D.D.S. University of Pacific Arthur A. Dugoni School of Dentistry, 2002

Jinyoung Jung, Instructor, B.Sc., Chemistry, City College of New York, 2014 I M.Sc., Biochemistry, City College of New York, 2016 I D.D.S., New York University , 2021

Aouse Khalil, Assistant Professor, B.D.S, University of Mosul College of Dentistry, 2003 | D.D.S., University of Pacific Arthur A. Dugoni School of Dentistry, 2011

Nicholas Kitajima, Instructor, BS, University of California, Davis, 2001 | Certificate, University of the Pacific, School of Dentistry, 2005 | DDS, University of the Pacific, School of Dentistry, 2004

Katerina Koleva, Instructor, D.M.D., University of Dental Medicine, 2009 | D.D.S., University of the Pacific Arthur A. Dugoni, 2015

Eugene LaBarre, Associate Professor, BA, Harvard University, 1973 | DMD, Tufts University, 1977 | MS, University of North Carolina, 1981

Ivana Lee, Instructor, D.D.S., University of California, Los Angeles, 2019

Michael Lee, Clinical Instructor, B.Sc., San Francisco State University, 1989 | D.D.S., University of the Pacific Dental School, 2001

Ryan Leong, Clinical Instructor, B.Sc. University of the Pacific, 2021 | D.D.S, University of the Pacific Arthur A. Dugoni School of Dentistry, 2024

Rogelio Li, Instructor, D.D.S., University of California, Los Angeles, 1987

Jin Hoon Lim, Instructor, D.D.S, University of the Pacific Arthur A. Dugoni School of Dentistry, 2023

Ken Louie, Associate Professor, BA, University of California, Berkeley, 1985 | D.D.S., University of the Pacific, 1988 | MA, University of the Pacific, 1994

Garret Madderra, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1991

Minoo Makassebi, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2002

Lyle McClellan, Instructor, D.D.S., Creighton University, 1993

Kamille Mercado, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2017

James Milani, Associate Professor, BA, University of the Pacific, 1979 | D.D.S., University of the Pacific, 1982

Rebecca Moazzez, Department Chair, PRD Department/Endowed Professor, B.D.S, University of London, 1986 | FDSRCS, Royal College of Surgeons of England, 1999 | FDSRCS (Restorative), Royal College of Surgeons of England, 2011 | Leadership, ADEA Leadership Institute, | Leadership, University of London, 2016 | MRD, Royal College of Surgeons of England, 2000 | M.Sc., University of London, 1999 | Ph.D., University of London, 2004

Arthur Muncheryan, Instructor, BSc, U.C. Irvine, 1971 | D.D.S., UCSF School of Dentistry, 1977

Florence Ngo, Clinical Instructor, Certificate, American Orthodontic Society, 2009 | D.D.S., University of Southern California School of Dentistry, 2000

William Ngo, Instructor, D.D.S., University of Southern California, Herman Ostrow School of Dentistry, 2020

Kenneth Nguyen, Clinical Instructor, B.Sc., University of California, Davis, 1993 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1996

Khatareh Noordeh, Instructor, D.D.S., UCSF School of Dentistry, 1987

Marina Pampalone, Instructor, BA, California State University, Northridge, 1985 | DDS, UOP School of Dentistry, 1988

Patrick Pansoy, Assistant Professor, Director, International Programs, Bachelor of Science, George Mason University, 2011 | Doctor of Dental Medicine, Cebu Doctors' University, 2016 | Doctor of Dental Surgery, University of the Pacific, 2020

Alisa Pham, Clinical Assistant Professor, B.Sc., Biology, California State University, Long Beach, 2015 | D.D.S University of California San Francisco, 2020 | Certificate, V.A. Greater Los Angeles Healthcare System, 2023 | Certificate, University of California, Los Angeles, 2024

Paul Phillips, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 1991

Allan Pineda, Instructor, D.D.S., University of Pacific, School of Dentistry, 2002 | DMD, Centro Escolar University, 1985

Fiorella Potesta- Knoll, Clinical Instructor, D.D.S., Peru Doctorate of University of San Martin de Porres, 1998 | M.Sc., University of Alabama, 2005 | Certificate, University of Alabama, 2006

Priya Prasannakumar, Vice- Chair/Assistant Professor, BDS, Padmashree Dr. D. Y. Patil Dental School, 2002 | D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2011I Certificate, Leadership in Health Education, UOP Benerd College, 2021I Emerging Leaders Program, ADEA Leadership Institute, 2022

Gitta Radjaeipour, Associate Professor, DDS, University of the Pacific, School of Dentistry, 1992 | EdD, University of the Pacific, Gladys L Benerd School of Education, 2009 | Other, San Jose State University, 1989

Jatinder Rooprai, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry, 2002

Suzanne Saidi, Assistant Professor, B.A., California State University, East Bay, 1988 | D.D.S., University of the Pacific Arthur A. Dugoni 1991| Cert. University of Turku, 1992

Eugene Santucci, Associate Professor, BS, Kings College, 1964 | Certificate, Foundation for Advanced Continuing Education, 1977 | Certificate, U.S. Navy Dental Internship, | D.D.S., Temple University School of Dentistry, | MA, University of the Pacific, 1994

Noëlle Santucci, Associate Professor, BS/RDH, Marquette University, 1985 | Certificate, University of the Pacific, School of Dentistry, 1992 | DDS, University of the Pacific, School of Dentistry, 1991 | MA, University of the Pacific, Benerd School of Education, 1994

Dina Scordakis, Instructor, D.M.D., Temple University, 1987

Stanley Siu, Instructor, D.D.S., Baylor College of Dentistry, 2004

Karen Schulze, Professor, Director of Clinically Applied Laboratory Research, DDS, University of Leipzig, Germany, 1992 | PhD, University of Leipzig, Germany, 1998 | Post-doc, UC San Francisco, 2002

Mohamed Shabayek, Associate Professor, B.D.S., Cairo University, 2000 I M.Sc., Restorative Dentistry, Cairo University, 2006 I Ph.D., Operative Dentistry, Cairo University, 2012

Roxanna Shafiee, Assistant Professor, BS, University of San Francisco, 1993 | DDS, University of the Pacific, 1997 | MSD, University of the Pacific, 2009

Catherine Steinborn, Clinical Instructor, BA, UC Santa Barbara, 1978 | D.D.S., UoP School of Dentistry, 1985 | Other, Veterans Administration SF, 1986

Bina Surti, Associate Professor, Case Western Reserve University, 1997 | AEGD, Case Western Reserve University, 1996 | BS, Wayne State University, 1991 | D.D.S., University of Detroit Mercy, 1995

Farhan Syed, Instructor, B.S., University of California, Davis, 2006 | D.M.D., University of Pittsburgh, 2010

Alec Tai, Clinical Instructor, B.Sc., University of The Pacific, 2016 | D.D.S., Touro College of Dental Medicine, 2020

Edrick Tan, Clinical Instructor, B.Sc., University of the Pacific, 2021 | D.D.S., University of the Pacific Arthur A. Dugoni, 2024

Titus Tang, Instructor, D.D.S., Columbia University, 2003

Michael Thomas, Clinical Instructor, A.A., City College of San Francisco, 1970 | D.D.S., University of California, 1973

Michael Tiller, Assistant Professor, BS, University of Oregon, 1995 | D.D.S., University of the Pacific, 1999

Chi Tran, Associate Professor, Certificate, University of Washington, 2011 | Certificate, University of California, San Francisco, 1984 | D.D.S., Medical College of Virginia, 1979

Steven Truman, Instructor, A.A., Cañada College, 2013 | D.D.S., University of the Pacific Arthur A Dugoni School of Dentistry, 2016

Daniela Truta, Instructor, D.D.S., University of the Pacific Arthur A Dugoni School of Dentistry, 2000

Elaine Van, Instructor, D.D.S., University of the Pacific Arthur A Dugoni School of Dentistry, 1993

Salar Zeinali, Instructor, D.M.D., University of Szerged, 2012 I M.Sc., Periodontics, University of Szerged, 2015 I D.D.S., Loma Linda University, 2020 I M.Sc. Prosthodontics, Columbia University, 2025

## Adjunct Faculty

Nisha Dharmani, Instructor, D.D.S., University of the Pacific Arthur A. Dugoni School of Dentistry I A.E.G.D., University of the Pacific Arthur A. Dugoni School of Dentistry

Thomas Ellerhorst, Assistant Professor, BS, University of San Francisco, 1972 | D.D.S., University of the Pacific, 1977

## Course Descriptions

### Predoctoral Courses

**PRD 130. IPS I Concepts: Dental Anatomy. 2 Units.**
This course will be an introduction to dental anatomy covering human dentition and providing dental students with basic knowledge and foundation required in practicing restorative dentistry. Dental anatomy will start with introduction to terminology and concepts related to teeth morphology, will cover anterior and posterior permanent dentition including incisors, canines, premolars and molars anatomy in comprehensive details, emphasizing set, arch, class and type traits. A comprehensive introduction to basic concepts of occlusion including temporomandibular joint anatomy, muscles of mastrication, angles classification and ideal occlusion in maximum intercuspation. Laboratory section is concentrated on hand skills and designed to guide students in application of knowledge and concepts through wax-ups. Students will be demonstrating their proficiency through regular assessments including but not limited to quizzes, final exams, class projects, tooth ID and practical examinations. (Quarters 1-2.).

**PRD 131. IPS I: Operative Dentistry Concepts. 6 Units.**
This course introduces students to the disease processes that lead to loss of tooth structure. Disease processes such as caries, trauma, and erosive tooth wear will be introduced to students along with concepts on diagnosis, risk assessment, and disease management. Direct restorative preparation designs in operative dentistry will be taught in relation to dental materials used such as composite resins and dental amalgams. The course also introduces students to the material science of the materials used, such as composite resins, adhesives, glass ionomer, amalgam, cavity liners, etc. (Quarters 1-3).

**PRD 132. IPS I: Fixed Prosthodontics Concepts. 6 Units.**
Students will learn the concepts and techniques necessary for beginning clinical practice of indirect restorative procedures (Fixed Prosthodontics). At the end of the course, the student should understand the diagnosis and treatment planning for patients requiring a fixed prosthodontic restoration including the rationale and criteria for each restoration. Preparation design principles for crown and bridge, provisionalization, final impressions and delivery of these restorations will be taught. Students will also have an initial exposure to digital dentistry. The course also introduces students to the material science of the materials used such as alginate, gypsum, vinyl polysiloxane, zirconia, lithium disilicate, metal alloys, porcelain fused to metal, etc. (Quarters 1-3).

**PRD 137. Local Anesthesia. 1 or 2 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 145. IPS I Technique: Dental Anatomy. 3 Units.**
This course will be an introduction to dental anatomy covering human dentition and providing dental students with basic knowledge and foundation required in practicing restorative dentistry. Dental anatomy will start with introduction to terminology and concepts related to teeth morphology, will cover anterior and posterior permanent dentition including incisors, canines, premolars and molars anatomy in comprehensive details, emphasizing set, arch, class and type traits. A comprehensive introduction to basic concepts of occlusion including temporomandibular joint anatomy, muscles of mastrication, angles classification and ideal occlusion in maximum intercuspation. Laboratory section is concentrated on hand skills and designed to guide students in application of knowledge and concepts through wax-ups. Students will be demonstrating their proficiency through regular assessments including but not limited to quizzes, final exams, class projects, tooth ID and practical examinations. (Quarters 1-2.).

**PRD 146. IPS I: Operative Dentistry Technique. 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 typodont teeth and natural extracted teeth in a mannequin and are evaluated with technique practical examinations.

**PRD 147. IPS I: Fixed Prosthodontics Technique. 10 Units.**
Students learn the skills to perform indirect restorative (fixed prosthodontic) procedures in a simulated setting. Starting with principles of a full coverage all-ceramic crown preparation and processing (Including Zirconia, Lithium disilicate), they then apply these principles to other preparations such as PFM and gold. An emphasis is placed on rehabilitation of the tooth and maintaining or enhancing function and 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 laboratory skills, and general dental procedures such as impression making and model work. (Quarters 1-3).

**PRD 148. Clinical Translation of Preclinical Concepts I. 1 Unit.**
This course is delivered in a small group hands-on format focusing on concepts and techniques that would prepare students to start patient care. Acquisition of digital impressions using intraoral scanners and creating patient models using 3D printers will be introduced in the course. Students will also gain hands-on experience using additional digital technology for patient care such as photography and intra-oral cameras. Foundational esthetic concepts such as shade selection and fabrication of whitening trays will also be introduced.

**PRD 149. Clinical Translation of Preclinical Concepts II. 1 Unit.**
This course is delivered in a small group hands-on format focusing on concepts and techniques that would prepare students to start patient care. This course focuses on the aspects of clinical care that deals with oral diagnosis and treatment planning. Students will apply treatment planning principles using case-based discussions relative to preventive and restorative treatment planning. Students will also obtain alginate impressions on each other and review principles of mounting the models on an articulator as a diagnostic record. Communication with the laboratory will be introduced. Students will also apply foundational concepts in restorative dentistry to a clinical situation through a simulated exercise.

**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 simulated 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 including partial coverage restorations are emphasized in later weeks with an emphasis on conservation of tooth structure. Cases increase in complexity throughout the quarter and treatment planning accompanies all projects. Adhesive protocols for restoration cementation are reviewed, and new techniques such porcelain repair and crown sectioning are introduced. (Quarter 4).

**PRD 155. Integrated Preclinical Technique I: Capstone. 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 simulated patient case utilizing the principles and techniques taught in the dental anatomy, operative dentistry and fixed prosthodontics courses in quarters one through three, in preparation for patient care in the clinic. Students also perform a smile design on their simulated patient, prepare teeth for lithium disilicate porcelain veneers and create provisional (temporary) restorations. Multiple designs of all-ceramic onlay preparations and provisionals are also introduced. (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. IPS I: Operative Dentistry and Fixed Prosthodontics Concepts. 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. Development of critical thinking skills is achieved through a literature review project. (IDS Quarters 1 & 2.).

**PRD 174. IPS I: Advanced Restorative Dentistry Concepts. 2 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 175. IPS I: Operative Dentistry and Fixed Prosthodontics Technique. 11 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. IPS I: Advanced Restorative Dentistry Technique. 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. 2 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 Sciences II Concepts: Occlusion. 1 or 2 Unit.**
This course provides a comprehensive overview of Dental Occlusion, from foundational principles to advanced clinical application. Students will explore the anatomy and biomechanics of the Temporomandibular Joint (TMJ), masticatory muscles, and their coordinated function. Students will establish a clear understanding of key occlusal concepts, including Centric Relation (CR) and Maximum Intercuspation (MI), and the dynamics of mandibular movement. An introduction to the etiology, diagnosis, and management of some occlusal complications that can impact the long-term prognosis of restorative treatments. The course covers occlusal splints, outlining the various types, indications and therapeutic uses. The course emphasizes the relationship between a stable occlusal scheme and successful outcomes in Restorative, Prosthodontic, Orthodontic, and Periodontic disciplines. By integrating these subjects, students will learn to develop a holistic treatment approach that minimizes stress on the dentition and supporting structures, leading to predictable and durable patient care. Furthermore, upon completion, students will possess the ability to identify complex occlusal pathologies that require referral to specialists with advanced training in the field.

**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, 3D Digital implant planning and Implants for Edentulous patients. The online content and quizzes are curated from the ITI platform to consolidate the principles and concepts of implant treatment planning, surgical procedures, restorative procedures, and maintenance. (DDS Quarter 6, IDS Quarter 2).

**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 reline/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 Sciences II Technique: Occlusion. 1.5 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 incisive guide table, Students gain 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. (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. (DDS Quarter 6, IDS Quarter 2).

**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 prosthodontics. 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 typodont 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 240. IPS II: Advanced Preventive and Restorative Dentistry Concepts. 2 Units.**
This is a second-year preclinical restorative concepts and technique course. The course continues to build on foundational concepts that have been introduced in the first-year restorative courses with respect to materials and techniques in operative dentistry and fixed prosthodontics. Restorative treatment planning concepts will be reviewed and reinforced using clinical cases and scenarios. Students will learn advanced concepts and techniques such as restoration of badly broken down teeth with fiber posts and core build ups. Students will also learn the differences in preparing vital and non-vital teeth for indirect restorations. Advanced direct and indirect procedures such as whitening, composite and porcelain veneers, inlays, onlays, survey crowns and erosive tooth wear treatment options will be discussed and performed using hands-on simulation laboratory exercises. Students will also be introduced to digital dentistry and the CAD/CAM process, including tooth preparation, intra-oral scanning, design, 3D printing and milling and post-mill processing and characterization. Students will also be taught the use of soft tissue lasers in restorative dentistry for gingival contouring or tissue management.

**PRD 246. IPS II: Advanced Preventive and Restorative Dentistry Technique. 3 Units.**
This is a second-year preclinical restorative concepts and technique course. The course continues to build on foundational concepts that have been introduced in the first-year restorative courses with respect to materials and techniques in operative dentistry and fixed prosthodontics. Restorative treatment planning concepts will be reviewed and reinforced using clinical cases and scenarios. Students will learn advanced concepts and techniques such as restoration of badly broken down teeth with fiber posts and core build ups. Students will also learn the differences in preparing vital and non-vital teeth for indirect restorations. Advanced direct and indirect procedures such as whitening, composite and porcelain veneers, inlays, onlays, survey crowns and erosive tooth wear treatment options will be discussed and performed using hands-on simulation laboratory exercises. Students will also be introduced to digital dentistry and the CAD/CAM process, including tooth preparation, intra-oral scanning, design, 3D printing and milling and post-mill processing and characterization. Students will also be taught the use of soft tissue lasers in restorative dentistry for gingival contouring or tissue management.

**PRD 277. Local Anesthesia. 1 Unit.**
Students review basic anesthesia delivery techniques and apply them to a clinical situation. Students will learn new clinical 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.

**PRD 279. Clinical Restorative Dentistry I. 4 or 6 Units.**
This is the first of two courses in Clinical Restorative Dentistry. This course is administered to second-year DDS students and spans the entire length of their second-year experience, and to first-year IDS students spanning the fall-spring quarters of their first-year experience. This course allows students to apply what they have learned during their Integrated Preclinical Technique course to patient care. With direct supervision and feedback from faculty, students perform all required Operative Dentistry, Fixed Prosthodontics, and Implant Supported Restorations on their patients. This course also includes didactic and clinical assessments.

**PRD 281. Dental Implants. 1 Unit.**
The study of modern implant dentistry with emphasis on history, the physiology of osseous integration, conventional and digital treatment planning of implants in the esthetic zone, implant surgery, fabrication of single and multiple tooth fixed implant restorations, and implant-supported removable overdentures, full arch rehabilitation, maintenance and implant complications. Hard and soft tissue augmentation procedures in the esthetic zone. The online content and quizzes are curated from the ITI platform to consolidate the principles and concepts of the esthetic zone implant treatment planning, surgical procedures, restorative procedures, and maintenance. The course includes a hands-on rotation on digital scanning, provisional restoration, and delivery of an implant crown. (DDS Quarter 8, IDS Quarter 4).

**PRD 379. Clinical Restorative Dentistry II. 23 Units.**
This is the final course in Clinical Restorative Dentistry. This course is administered to third year DDS students and second year IDS students and spans the entire length of their third (DDS)/second (IDS) year clinical experience. This course allows students to apply what they have learned during their first (IDS)/second (DDS) year clinical restorative patient care. With direct supervision and feedback from faculty, students perform all required fixed prosthodontic, operative, implant and removable prosthodontic dentistry on their patients (Quarters 9-12). This course also includes all clinical competency assessments in restorative dentistry for graduation.

**PRD 391. Preparation for State Licensure Lecture. 1.5 Unit.**
This is a one quarter course offered to senior dental students to help them prepare for the simulated licensure examination which has to be passed successfully in order to obtain a license to practice dentistry. Students will be introduced to the manual and the grading rubrics used in the licensure examination. Principles of caries removal, cavity preparations for a Class II and Class III composite resin and modification requests to remove caries extending beyond an ideal preparation will be reviewed. Students will prepare and restore carious teeth using composite resin, including finishing and polishing of the composite. Principles of crown and bridge preparations will be reviewed. Students will participate in mock board and certification sessions and successful completion of the course will qualify them to take the licensure examination.

**PRD 395. Preparation for State Licensure Lab. 3 Units.**
This is a two quarter course offered to senior dental students to help them prepare for the simulated licensure examination which has to be passed successfully in order to obtain a license to practice dentistry. Students will be introduced to the manual and the grading rubrics used in the licensure examination. Principles of caries removal, cavity preparations for a Class II and Class III composite resin and modification requests to remove caries extending beyond an ideal preparation will be reviewed. Students will prepare and restore carious teeth using composite resin, including finishing and polishing of the composite. Principles of crown and bridge preparations will be reviewed. Students will participate in mock board and certification sessions and successful completion of the course will qualify them to take the licensure examination.

**PRD 396. Clinical Removable Prosthodontics. 8 Units.**
This course involves comprehensive treatment of partially edentulous, completely edentulous, and hopeless dentition patients. It allows students to apply what they have learned during their Integrated Preclinical Technique curriculum to patient care. With direct supervision and feedback from faculty, students perform all indicated removable prosthodontic procedures on their patients. This course is conducted during the Summer, Autumn, Winter and Spring quarters of the DDS third year and IDS second year curriculum. Students are expected to actively participate in a comprehensive array of RP patient care at increasing levels of skill, independence, & judgement/problem-solving. Record of patient care, and faculty and lab feedback are used to determine student competency and readiness for independent practice including Removable Prosthodontics.