

PROSTHODONTICS (PROS)

PROS 500. Advanced Biomaterials in Prosthodontics. 1 Hour.

Semester course; 1 seminar hour. 1 credit. Enrollment is restricted to students in the prosthodontic concentration of the Master of Science in Dentistry program. The course is a seminar course that will provide basic material science and clinical applications of contemporary biomaterials used in prosthodontic therapy. The course will include physical properties of non-elastomeric and elastomeric materials, polymethylmethacrylate and related polymers, composite resins and other operative materials, cements and luting materials, metal alloys in dentistry, materials used in CAD/CAM dentistry, dental implant materials, as well as current literature in prosthodontic biomaterial research. Graded as pass/fail.

PROS 501. Diagnosis, Treatment Planning and Case Presentation Seminar. 2 Hours.

Semester course; 2 seminar hours. 2 credits. May be repeated for a maximum of 12 credits. Enrollment is restricted to students in the prosthodontic concentration of the Master of Science in Dentistry program. The course is a one semester seminar course that is taken on a recurring basis throughout the three years of prosthodontic residency training. Residents will present their case to their classmates and faculty. The case presentation will include pre-operative conditions, diagnosis and treatment planning process using evidence-based principles for cases in the treatment planning phase. In addition, treatment sequences as well as prognosis and post-treatment assessment will be added to the presentations for cases with completed treatments. Mainly, first year resident presentations will be on diagnosis and treatment planning while for second and third year residents it will be a mix of treatment planning as well as presenting completed cases. Graded as pass/fail.

PROS 502. Digital Technology Prosthodontics. 1 Hour.

Semester course; 1 seminar hour. 1 credit. Must be taken for two consecutive semesters. Enrollment is restricted to students in the prosthodontic concentration of the M.S.D. program. Students will learn the clinical and laboratory principles of digital technology in prosthodontics. The seminar will cover the overview of digital applications in dentistry, intraoral scanners, digital prosthodontic software designs and virtual articulators, principle and practice of CAD/CAM dentistry, 3D printing/additive manufacturing, digital dentistry in fixed prosthodontics, digital dentistry in removable partial denture therapy, and digital complete dentures. This course will present the overall use of digital technology and its clinical and laboratory applications. Graded as pass/fail.

PROS 503. Fundamentals of Prosthodontics. 7 Hours.

Semester course; 7 seminar/laboratory hours. 7 credits. Enrollment is restricted to students in the prosthodontic concentration of the Master of Science in Dentistry program. The course is a one semester seminar course that is taken by the first-year residents at the beginning of the program. The aim of this course is to go over an in-depth-review of the fundamentals of prosthodontics in fixed, removable, and implant dentistry from didactics to laboratory/clinical aspects as well as detailed diagnosis and treatment planning procedures for different case scenarios and a focus on digital workflows. During this course there will be orientation to the program where the program director goes over the graduate programs' handbook. Graded as pass/fail.

PROS 600. Advanced Prosthodontics Literature Review. 1 Hour.

Semester course; 1 seminar hour. 1 credit. May be repeated for a maximum of six credits. Enrollment is restricted to students in the prosthodontic concentration of the Master of Science in Dentistry program. The course is a seminar course in advanced applications of prosthodontic therapy including principle of full mouth rehabilitation, diagnosis and treatment for temporomandibular disorders and orofacial pain, occlusion, digital dentistry, and evidence-based prosthodontic therapy in fixed, removable and dental implants related topics. This course will emphasize the clinical applications of advanced clinical prosthodontics. Graded as pass/fail.

PROS 601. Surgical and Prosthodontic Principles of Implant Therapy. 1 Hour.

Semester course; 1 seminar hour. 1 credit. May be repeated for a maximum of two credits. Enrollment is restricted to students in the prosthodontic concentration of the Master of Science in Dentistry program. The course is a seminar course that will provide the surgical and prosthodontic principles of implant therapy. The seminar will include wound healing, infection control, anatomy and physiology related to prosthodontic and implant therapy, diagnostic imaging and cone-beam computed tomography technology, diagnosis and treatment planning for implant therapy, common hard and soft tissue augmentation procedures in implant dentistry, guided implant surgery, and management of complications in implant dentistry. Graded as pass/fail.

PROS 624. Preclinical Removable Prosthodontics. 2 Hours.

Yearlong course; 2 lecture hours. 2 credits. An introductory course in removable prosthodontics, including complete dentures and removable partial dentures. Presents the basic information, which is prerequisite for understanding the laboratory procedures and the diagnosis and treatment planning of patients requiring CDs and RPDs. Graded as CO in the fall semester with a letter grade and credit awarded in spring.

PROS 625. Preclinical Removable Prosthodontics Lab. 4 Hours.

Yearlong course; 4 laboratory hours. 4 credits. An introductory course in removable prosthodontics, including complete dentures and removable partial dentures. Presents the basic information, which is prerequisite for understanding the laboratory procedures and the diagnosis and treatment planning of patients requiring CDs and RPDs. This laboratory course provides hands-on skill development of these procedures. Graded CO in fall with a letter grade and credit awarded in spring.

PROS 626. Clinical Principles of Dental Implantology Lecture. 1 Hour.

Semester course. 1 credit. Enrollment restricted to admitted dental students. Offered in tandem with a laboratory course and providing didactic information on the same topic, this course is a preclinical experience for predoctoral students, designed to introduce necessary clinical skills for dental implantology.

PROS 628. Clinical Principles of Implantology Lab. 1 Hour.

Semester course; 48 lab contact hours. 1 credit. Enrollment restricted to admitted dental students. Offered in tandem with a lecture course and providing didactic information on the same topic, this course is a preclinical laboratory experience for predoctoral students, designed to introduce necessary clinical skills for dental implantology. Simulated activities include diagnosis and treatment planning, fabrication of a surgical guide, implant surgery, implant prosthodontic impression making, master cast fabrication, implant crown provisionalization, and implant overdenture treatment skills. Students will see demonstrations of cone-beam CT scan technology, computer-based software for implant surgical treatment planning and computer-based CAD-CAM design for custom implant abutments.

PROS 630. Principles of Maxillofacial Prosthetics. 0.5 Hours.

Semester course; 0.5 lecture hours. 0.5 credits. Enrollment is restricted to students admitted to the Master of Science in Dentistry program. This course is designed as a lecture-seminar for advanced prosthodontic residents, aiming to familiarize them with advanced interdisciplinary care for patients with developmental or acquired oral-maxillofacial defects, including those resulting from radiation and requiring pre-radiation and pre-resection dental examinations and treatments. Through this course, residents will gain expertise in the interdisciplinary treatment procedures involving chemotherapy, radiation therapy and jaw reconstruction, specifically focusing on providing prosthetic rehabilitations like maxillary obturators, mandibular resection appliances, speech appliances and implant-assisted maxillofacial prostheses. Graded as pass/fail.

PROS 656. Literature Review in Prosthodontics. 1 Hour.

Semester course; 1 seminar hour. 1 credit. May be repeated for credit. Enrollment is restricted to students in the prosthodontic concentration of the M.S.D. program. Residents will present the classic and current literature on a rotation basis through topics in fixed prosthodontics, removable prosthodontics, implants and implant therapy, occlusion, esthetics, biomaterials, digital technology, prosthodontic diagnosis and treatment planning, temporomandibular disorders and orofacial pain, pre-prosthetic surgery, geriatric considerations in prosthodontic care, and maxillofacial prosthetics. The course will train students to use the principles of evidence-based dentistry to evaluate classic and current literature as well as create a culture of self-learning and lifelong learning. Graded as pass/fail.

PROS 680. Clinical Prosthodontics. 1-12 Hours.

Semester course; 3-36 clinic hours. 1-12 credits. May be repeated for a maximum of 32 credits. Enrollment is restricted to students in the Master of Science in Dentistry program. This course provides supervised experiences in advanced clinical skills. Students will enhance their skills in diagnosis and treatment planning, patient communication, professional and ethical care, and collaboration with other healthcare providers. Sections of the course will address specialty specific treatments. May be taken without credit in additional semesters as needed to complete clinical training. Graded as pass/fail.

PROS 700. Senior Selective in Advanced Clinical Prosthodontics. 2 Hours.

Semester course; 1 lecture and 3 clinical hours. 2 credits. Students must enroll in this course for two consecutive semesters. It is designed to develop advanced skills in treating prosthodontic cases beyond the level of basic clinical competency required for graduation. Graded as Pass/Fail.

PROS 731. Complete Denture Prosthodontics. 1.5 Hour.

Semester course; 1.5 lecture hours. 1.5 credits. Designed to present the current concepts, principles and diagnostic techniques required to diagnose, treatment plan and predict the outcome of the treatment of edentulous patients and patients requiring a single denture against natural teeth. Acceptable clinical procedures are presented for the management of patients that fall into the above categories. Correlation of basic and clinical science is emphasized, as well as the prosthodontic ramifications of the mechanical and behavioral sciences.

PROS 735. Removable Prosthodontics Diagnosis and Treatment. 1.5 Hour.

Semester course; 1.5 lecture contact hours. 1.5 credits. Designed to prepare students to apply their preclinical removable prosthodontic knowledge and skill in the clinical setting. Focuses on the diagnosis and treatment planning aspects of clinical care.

PROS 739. Clinical Fixed Prosthodontics III. 2 Hours.

Yearlong course; 2 clinical hours. 2 credits. This course builds on preclinical laboratory skills developed in D1 and D2 years and applies them to fixed prosthodontic patient care in the clinical setting. Graded CO in the fall semester with a pass/fail grade and credit awarded in spring.

PROS 740. Clinical Removable Prosthodontics. 3.5 Hours.

Yearlong course; 3.5 clinical hours. 3.5 credits. Prerequisite: PROS 624. This course builds on technical skills developed in PROS 624 (D2 year) and applies them to patient care in the clinical setting. Graded CO in the fall semester with a pass/fail grade and credit awarded in spring.

PROS 749. Clinical Prosthodontics IV. 2 Hours.

Yearlong course; 2 clinic hours (one clinic session per week averaged over the year). 2 credits. This capstone course provides clinical experience in basic fundamental prosthodontic procedures, including diagnosis, management and treatment of patients in need of reconstructive fixed, removable or implant prosthodontic care. The course also includes both technical and competency assessment of the dental student's skills as an entry-level general dentist. Students receive CO grading in the fall and a pass/fail grade and earned credit in the spring.