

# PROSTHODONTICS (PROS)

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## **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 M.S.D. program. Students will learn 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, and dental implant materials, as well as current literature in prosthodontic biomaterials research. Graded as pass/fail.

## **PROS 501. Prosthodontics Case Presentation and Interdisciplinary Seminar. 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 their case to residents and faculty from advanced education in general dentistry, graduate periodontics, endodontics, orthodontics and oral and maxillofacial surgery. The case presentation will include pre-operative conditions, diagnosis and treatment planning process using evidence-based principles, treatment sequences, as well as prognosis and post-treatment assessment. 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. Prosthodontic Principles. 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. The course emphasizes the principles of prosthodontic therapy including all basic aspects of prosthodontics, including complete denture prosthodontics, removable partial denture prosthodontics, fixed prosthodontics, implant prosthodontics, occlusion, esthetics, craniofacial anatomy and physiology related to prosthodontics, as well as prosthodontic diagnosis and treatment planning. This course will emphasize the clinical applications of different theoretical principles in prosthodontics. Graded as pass/fail.

## **PROS 600. Advanced 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. This course covers the advanced applications of prosthodontic therapy including the principle of full-mouth rehabilitation, diagnosis and treatment for temporomandibular disorders and orofacial pain, evidence-based prosthodontic therapy, ethics and professionalism in prosthodontics, pre-prosthodontic surgery, prosthodontic care for geriatric patients, maxillofacial prosthetics, and common medical emergencies in prosthodontics. The 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 credits. Enrollment is restricted to students in the prosthodontic concentration of the M.S.D. program. Students will learn 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 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 Hour.**

Semester course; 3 clinic hours. 1 credit. May be repeated for credit. Enrollment is restricted to students in the M.S.D. program. The clinical course is intended for all prosthodontic residents. The clinical experience will include but not be limited to complex fixed and removable prosthodontics, complete denture prosthodontics, implant prosthodontics and maxillofacial prosthodontics. The course is designed to provide residents with a wide range of types of patients and patient care with state-of-the-art technology. The residents will provide prosthodontic care together with other dental specialties in an interdisciplinary manner. A daily case presentation and faculty feedback will be given to individual residents. At the end of the semester, it is expected that the student summarize their experience and present their case at the interdisciplinary conference. 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.