

# Prosthodontics

## Head

- Julie A. Holloway

**Professional certificate:** prosthodontics

**Faculty:** <https://www.dentistry.uiowa.edu/prosthodontics-faculty>

**Website:** <https://www.dentistry.uiowa.edu/prosthodontics>

Prosthodontics is the dentistry specialty involving crowns, fixed partial dentures (bridges), removable partial dentures, complete dentures, maxillofacial prostheses, and implant prostheses.

## D.D.S. Student Training

The Department of Prosthodontics instructs Doctor of Dental Surgery students in the basic principles, practices, and concepts of prosthodontics required for the practice of general dentistry. Students learn through laboratory projects and treatment of patients with differing prosthodontic needs.

## Programs

### Professional Program of Study

- Certificate in Prosthodontics

## Facilities

Most didactic, clinical, and laboratory instruction and patient treatment takes place in the Department of Prosthodontics, which is located in the Dental Science Building. The building also houses the Doctor of Dental Surgery (D.D.S.) program, training programs in specialties recognized by the American Dental Association, and the Iowa Institute for Oral Health Research.

The college and the department provide supporting technologies that include cone beam CT radiography, implant imaging software, laboratory CAD/CAM systems, laser surgery, clinical operating microscopes, and digital shade matching.

Advanced prosthodontic students spend time at University of Iowa Hospitals and Clinics, where they work closely with medical professionals in other disciplines to treat medically compromised prosthodontic patients and those who require maxillofacial rehabilitation.

## Courses

### Prosthodontics Courses

<b>PROS:5700 Advanced Clinical Prosthodontics</b>	<b>0,2 s.h.</b>
<b>PROS:5710 Advanced Removable Prosthodontic Technique</b>	<b>0,2 s.h.</b>
<b>PROS:5720 Advanced Instrument Technique</b>	<b>0,2 s.h.</b>
<b>PROS:5730 Advanced Implant Techniques</b>	<b>0-2 s.h.</b>
<b>PROS:5740 Advanced Fixed Prosthodontics Technique</b>	<b>0,2 s.h.</b>
<b>PROS:5750 Clinical Issues and Treatment Planning in Prosthodontics</b>	<b>0-1 s.h.</b>

**PROS:6220 Fixed Prosthodontics Literature Review I** **0-4 s.h.**  
Fixed prosthodontic procedures; assigned readings, discussion of related research.

**PROS:6221 Fixed Prosthodontics Literature Review II** **0-4 s.h.**  
Porcelain-fused-to-metal and ceramic restorations, color science and esthetics; assigned readings, discussion of related research.

**PROS:6222 Implant Literature Review** **0-4 s.h.**  
Implant prosthodontics; assigned readings, discussion of related research.

**PROS:6223 Occlusion Seminar** **0-4 s.h.**  
Occlusion and the temporomandibular system; assigned readings and discussion of related research.

**PROS:6224 Graduate Restorative Materials** **0,2 s.h.**  
Dental materials science; mechanical, physical, and chemical properties of restorative materials; selection and manipulation.

**PROS:6225 Complete Denture Literature Review** **0-4 s.h.**  
Complete denture prosthodontics; assigned readings, discussion of related research.

**PROS:6226 RPD Literature Review** **0-4 s.h.**  
Removable partial denture prosthodontics; assigned readings, discussion of related research.

**PROS:6700 Maxillofacial Prosthodontics Seminar** **0-1 s.h.**

**PROS:6710 Dental Implant Surgery for Prosthodontic Residents** **arr.**  
Lecture and literature review covering implant surgery and complications for prosthodontics residents.

**PROS:7700 Maxillofacial Prosthodontics Rotation** **0-1 s.h.**

**PROS:8120 Treatment of Dentulous Patients: Introduction to Occlusion Lecture** **1 s.h.**  
Introduction to principles of occlusion and their clinical application.

**PROS:8121 Treatment of Dentulous Patients: Introduction to Occlusion Lab** **1 s.h.**  
Patient simulation exercises demonstrating principles of occlusion.

**PROS:8122 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lecture** **1 s.h.**  
Basic principles of fixed prosthodontics for single-unit anterior teeth; basic principles of tooth preparation, clinical steps, and digital procedures for fabrication of anterior single-tooth all-ceramic crowns and interim crowns. Prerequisites: PROS:8120 and PROS:8121.

**PROS:8123 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Anterior Teeth Lab** **1 s.h.**  
Patient simulation exercises in single anterior tooth preparation, and fabrication of single-unit anterior all-ceramic and interim restorations. Prerequisites: PROS:8120 and PROS:8121.

**PROS:8124 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lecture** **1 s.h.**  
Basic biomechanical principles of fixed posterior single tooth prosthodontics; diagnosis and treatment planning for dentate patients including occlusion. Prerequisites: PROS:8120 and PROS:8121 and PROS:8122 and PROS:8123.

**PROS:8125 Treatment of Dentulous Patients: Fixed Prosthodontics for Single Posterior Teeth Lab 1 s.h.**

Patient simulation exercises in single posterior tooth preparation and laboratory fabrication of single-unit posterior definitive and interim restorations. Prerequisites: PROS:8120 and PROS:8121 and PROS:8122 and PROS:8123.

**PROS:8240 Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Lecture 1 s.h.**

Basic biomechanical principles of fixed prosthodontics for multiple-unit fixed prostheses; diagnosis and treatment planning for partially edentulous patient, including occlusion and esthetic concerns.

**PROS:8241 Treatment of Partially Edentulous Patients: Fixed Multi-Unit Prosthodontics Patient Simulation 1 s.h.**

Patient simulation exercises in preparation and fabrication of a three-unit fixed partial dental prosthesis and interim restoration.

**PROS:8242 Treatment of Partially Edentulous Patients: Single Tooth Implant Lecture 1 s.h.**

Principles, clinical steps, materials, and laboratory procedures necessary for single tooth fixed implant treatment. Prerequisites: PROS:8240 and PROS:8241.

**PROS:8243 Treatment of Partially Edentulous Patients: Single Tooth Implant Patient Simulation 1 s.h.**

Clinical steps in laboratory procedures for single tooth implant surgical guide fabrication and restoration. Prerequisites: PROS:8240 and PROS:8241.

**PROS:8244 Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Lecture 1 s.h.**

Basic biomechanical principles of tooth replacement with removable partial prosthodontics; diagnosis and treatment planning for partially edentulous patients. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243.

**PROS:8245 Treatment of Partially Edentulous Patients: Removable Partial Prosthodontics Patient Simulation 1 s.h.**

Laboratory exercises in basic principles, clinical steps, and laboratory procedures necessary for fabrication of removable partial dentures. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243.

**PROS:8246 Treatment of Edentulous Patients: Removable Complete Prosthodontics Lecture 1 s.h.**

Fundamental principles of diagnosis and treatment planning for edentulous patients, surgical and prosthodontic protocols for oral rehabilitation of edentulism. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243 and PROS:8244 and PROS:8245.

**PROS:8247 Treatment of Edentulous Patients: Removable Complete Prosthodontics Patient Simulation 1 s.h.**

Laboratory exercises in basic principles, clinical steps, and laboratory procedures necessary for fabrication of complete dentures, including implant over-dentures. Prerequisites: PROS:8240 and PROS:8241 and PROS:8242 and PROS:8243 and PROS:8244 and PROS:8245.

**PROS:8360 Prosthodontic Clinic arr.**

Experience supplemented by individual supervision, demonstration.

**PROS:8365 Prosthodontic Seminar 2 s.h.**

Knowledge in biological, basic sciences and technique applied to clinical fixed and removable prosthodontics procedures.