## DENTAL TECHNOLOGY (DEN TEK)

### DEN TEK 100 INTRODUCTION TO THE DENTAL LABORATORY

1. Units (Lab 2 Hrs)

Corequisite: DEN TEK 101

Students learn the steps in producing functional dental models required in the construction of dental prosthetic restorations.

### DEN TEK 101 ELEMENTS OF DENTAL TECHNOLOGY

1. Units (Lec 2 Hrs)

Corequisite: DEN TEK 100

The student learns about the Dental Prosthodontics Technology profession, history, specialties, and employment opportunities. The student learns the sequence of steps in the construction of a functional removable die cast model.

### DEN TEK 102 DENTAL ANATOMY AND TERMINOLOGY

1. Units (Lec 3 Hrs)

Advisory: ENGLISH 028, ENGLISH 067

The student learns about dental terminology, the function of the oral cavity, primary and secondary human dentition, tooth morphology and function, and anatomical landmarks. The importance of tooth supporting structures anatomy and histology, as well as human skull osteology and myology, is stressed.

### DEN TEK 103 REMOVABLE PROSTHODONTICS I

5 Units (Lec 3 Hrs / Lab 5 Hrs)

Prerequisite: DEN TEK 102, DEN TEK 100 Corequisite: DEN TEK 285

Students learn the art and science of creating natural looking complete dentures by using PTC techniques and methodology. The course includes: dental anatomy, concepts of a natural smile, selecting and setting denture teeth in balanced occlusion, duplication of natural tissue, and processing, finishing and polishing complete dentures according with established clinical standards, and an introduction to digital dentistry.

### DEN TEK 105 REMOVABLE PROSTHODONTICS II

5 Units (Lec 3 Hrs / Lab 6 Hrs)

Prerequisite: DEN TEK 103 Corequisite: DEN TEK 285

The student learns about the design and construction of maxillary complete dentures opposing a mandibular overdenture, including the science of prescribed materials. Students learn how to reline and repair complete dentures, immediate maxillary denture, and wrought wire mandibular stay plate.

### DEN TEK 106 DENTAL MATERIALS

3.5 Units (Lec 3 Hrs / Lab 1 Hrs)

Prerequisite: DEN TEK 100

Students learn by lecture, demonstration, and experiment the physical properties and chemical composition of dental materials, including their uses in dentistry.

### DEN TEK 108 GNATHOLOGICAL CONCEPTS

3 Units (Lec 2 Hrs / Lab 2 Hrs)

Prerequisite: DEN TEK 109

Students learn about gnathological concepts of morphology, functional occlusion of oral cavity, and principles of ideal and functional contacts. Organic waxing of the maxillary and mandibular teeth occlusal surfaces is accomplished on semi‑adjustable articulators.

### DEN TEK 109 FIXED PROSTHODONTICS I

1. Units (Lec 2 Hrs / Lab 8 Hrs)

Prerequisite: DEN TEK 100, DEN TEK 102 Corequisite: DEN TEK 285

Advisory: ENGLISH 028

The student learns to apply the principles of dental morphology and functional occlusion to single anterior and posterior teeth by applying analogue and digital applications.

### DEN TEK 111 FIXED PROSTHODONTICS II

1. Units (Lec 3 Hrs / Lab 6 Hrs)

Prerequisite: DEN TEK 109

Students learn to wax single and multiple units by using PTC techniques and methodology based on student learning outcomes. Learning and understanding concepts such as tooth contour alignment, functional and morphological occlusion. Students learn fundamental concepts in metal and ceramic substructure designs applied to single units. Students learn techniques in spruing, investing, and casting including soldering applications.

### DEN TEK 112 REMOVABLE PROSTHODONTICS III

6 Units (Lec 4 Hrs / Lab 6 Hrs)

Prerequisite: DEN TEK 105

The student learns removable partial denture construction, both analog and digital, from start to finish. The course consists of two sections: framework production and replacement teeth addition to the framework. The first section will consist of the use of the dental surveyor, design of the partial denture framework, waxing, casting cobalt‑chromium alloy, and finishing and polishing the framework. The second section will consist of replacement tooth set‑up, wax‑up, processing, equilibration, and finish and polish.

### DEN TEK 185 DIRECTED STUDY ‑ DENTAL TECHNOLOGY

1 Units (RPT 2) (Lec 1 Hrs)

Dental Prosthetic Technology students pursue directed study on a contract basis under the direction and supervising of the instructor. The students will receive additional evaluation and guidance in the skills and theory learning steps underlying Advanced Restorative Prosthodontics courses, level III and IV.

### DEN TEK 202 LABORATORY MANAGEMENT

4 Units (Lec 2 Hrs / Lab 6 Hrs)

Corequisite: DEN TEK 208

Students learn to observe and work under the supervision of a skilled dental technician in a dental clinic or dental laboratory where they have the opportunity to apply the knowledge and skills learned. Students learn about production, operation, and management of dental laboratory business including the ethics, jurisprudence, safety regulations, and infection control protocols. Topics include human resource management, types of business financing, marketing strategies, entrepreneurship, and current professional topics.

### DEN TEK 203 CERAMIC RESTORATIONS

1. Units (Lec 1 Hrs / Lab 3 Hrs)

Prerequisite: DEN TEK 111

The student learns about dental ceramic restorations, including: materials proprieties and manipulation, tooth morphologic design, feldsphatic materials sintering, contouring staining, glazing, and polishing, as well as science of color and aesthetic design.

### DEN TEK 204 ORTHODONTICS

1. Units (Lec 2 Hrs / Lab 2 Hrs)

Prerequisite: DEN TEK 105

The student learns about the principles of construction and repair of orthodontic and pedodontic appliances. Emphasis is placed on pouring and trimming orthognathic study casts, wire bending techniques, soldering and welding techniques, and fabrication of various types of orthodontic appliances.

### DEN TEK 206 FIXED PROSTHODONTICS III

6 Units (Lec 2 Hrs / Lab 8 Hrs)

Prerequisite: DEN TEK 111, DEN TEK 108

This is an advanced course in the Fixed Prosthodontics specialty. Students learn about the science of materials, gnathological concepts, prosthetic framework design techniques, and technologies applied in the restorative prosthodontics procedures in alignment with clinical acceptable standards.

### DEN TEK 207 REMOVABLE PROSTHODONTICS IV

6 Units (Lec 3 Hrs / Lab 7 Hrs)

Prerequisite: DEN TEK 105, DEN TEK 112

This is an advanced course in Removable Prosthodontics Specialty. This course incorporates advanced removable dentures design, materials science, and manufacturing techniques.

### DEN TEK 208 FIXED PROSTHODONTICS IV

6 Units (Lec 3 Hrs / Lab 7 Hrs)

Prerequisite: DEN TEK 206

This is an advanced course in the Fixed Prosthodontics specialty, level four. This course incorporates advanced ceramic restorations analysis, design, and manufacturing techniques, including science of materials and their applications. Students learn the methodology of feldspathic porcelain powders application techniques as it applies to single and multiple units, by incorporating the proper morphologic, functional and optical values. Digital technology is an integral part of the course instructions and applications.

### DEN TEK 285 DIRECTED STUDY ‑ DENTAL TECHNOLOGY

2 Units (RPT 1) (Lec 2 Hrs)

Dental Prosthetic Technology students pursue directed study on a contract basis, under the direction and supervising of the instructor. Students receive additional evaluation and guidance in the skills and theory learning steps underlying fixed and removable Prosthodontics courses, level I and II.

### DEN TEK 304 DIGITAL TECHNOLOGIES APPLICATIONS IN ADVANCED PROSTHODONTICS I

8 Units (Lec 4 Hrs / Lab 11 Hrs)

Prerequisite: DEN TEK 208 or Proof of certification or dental pr osthetic tenchology field experience

Students learn to evaluate, plan, scan, design, and process complex advanced fixed prosthodontics cases, including multiple units restorations, frames and full contours bridges, implant restorations, and combination cases. Students complete clinically acceptable prosthetic restorations, where the coordination between function and esthetics is fully maximized.

### DEN TEK 401 DENTAL IMPLANTS

4 Units (Lec 2 Hrs / Lab 6 Hrs)

Prerequisite: DEN TEK 207

Students learn about dental implants including history, surgical overview, types of implants and implant restorations, case planing, prosthodontic procedures, laboratory procedures, restorative materials, and case finalization.

### DEN TEK 403 DIGITAL TECHNOLOGIES APPLICATIONS IN ADVANCED PROSTHODONTICS II

8 Units (Lec 4 Hrs / Lab 8 Hrs)

Prerequisite: DEN TEK 401 or Proof of certification or dental prosthetic technology field experience

Students learn to evaluate, plan, scan, design, and process complex advanced removable prosthodontics cases, including partial dentures and implant over dentures. Students complete clinically acceptable prosthetic restorations, where the coordination between function and esthetics is fully maximized.