

prosthodontics I

## **Introduction to Fixed Prosthodontics**

**Course Title: Fixed restorative prosthodontics I**

**Course Number: DEH 223**

**Credit Hours: 1+3 =4**

**Pre-Requisite: DEH 211/DEH 217**

### **Course Description**

Foundation knowledge and supportive laboratory skills related to the fabrication of single unit metal restorations is introduced and practiced. The knowledge, skills and attitudes that are required during dental technology practice of: preparing and trimming master casts, producing custom trays, pindexing, articulating casts using semi-adjustable articulators, and waxing of single unit metal restorations and fabrication

### **COURSE OBJECTIVES:**

1. Identify basic concepts relating to the fabrication of fixed prosthetics.
2. Describe the types of fixed restorations
3. Describe the differences between a removable partial dentures and a fixed bridge.
4. State basic principles for tooth preparation as they relate to fixed prosthetics.
5. Identify principles of occlusion and articulation as they relate to fixed restorations.
6. Identify materials used for the fabrication of fixed metal restorations, including composition and principles for manipulation and safety.
7. Identify abrasives and polishing agents used for fixed restorations.
8. Identify the safe use and maintenance of laboratory instruments and equipment used for the fabrication of fixed restorations.
9. Identify custom trays and the principles for fabrication using various methods and materials
10. Describe aesthetics, form and function as they relate to the fabrication of fixed restorations.
11. Describe gingival margin preparations and their influence on the fabrication of fixed restorations.

12. Identify the principles for using articulators for setting up the casts for fixed restorations.
13. Identify the types of articulators that can be used during the fabrication of fixed restorations
14. Describe principles relating to the construction of working casts used for the fabrication of fixed restorations
15. Identify principles for constructing hole pin on the master cast
16. Identify principles for constructing die models for single metal crowns using various techniques and multiple unit restorations
17. Identify metal post crowns, including principles relating to their design and fabrication
18. Describe principles and techniques relating to the fabrication of single unit fixed restorations
19. Identify the principles and perform the techniques relating to the fabrication of using single unit fixed metal restorations, including temporary crowns.
20. Practice principles related to spruing a wax pattern for a single unit metal crown.
21. Practice principles related to investing wax patterns for single unit metal crowns.
22. Practice principles related to casting fixed Prosthodontic restorations with alloys
23. Fabricate single unit metal restorations and temporary crowns as prescribed.
24. Identify principles and techniques for fabricating single unit ceramo/metal restorations.
25. Practice principles and techniques for waxing single unit ceramo/metal restorations.

### Course outline

<b>Week 1</b>	Introduction
<b>Week 2</b>	Basic concepts of fixed prosthetics  A. One hour classroom lecture
<b>Week 3</b>	Define fixed restorations and its types  A. One hour classroom lecture

<b>Week 4</b>	Principles of tooth preparation and their influence on the fabrication of fixed restorations.  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 5</b>	Principles of occlusion and articulation and list types of articulators  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 6</b>	The materials used for the fabrication of fixed metal restorations  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 7</b>	Mid term exam 1
<b>Week 8</b>	Principles for fabrication of custom trays  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 9</b>	Principles of construction of working casts, hole pin and removable die  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 10</b>	Principles and techniques of fabrication of single unit fixed restorations (Spruing and investing wax pattern)  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 11</b>	Principles of casting fixed prosthodontic restorations  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 12</b>	Principles and techniques of fabricating single unit ceramo/metal restorations.  A. One hour classroom lecture B. One hour laboratory demonstration
<b>Week 13</b>	Mid term exam 2

<b>Week 14</b>	Revision
<b>Week 15</b>	Final exam

### **Teaching methods:**

Classroom lecture

Practical at the lab

### **Evaluation:**

2 mid term exam	20%
Practical exam	30%
Attendance	5%
Lab bench clean	5%
Final written exam	40%
Total	100%

### **Reference:**

1. Fixed Restorative Techniques, UNC
2. Metal Ceramic Technology, Naylor
3. Dental laboratory Technology, Fixed prosthodontics, Volume 1, Medical Service, Air force, Washington DC 20330-5000.