

**DLT 211**  
**ADVANCED COMPLETE DENTURES**

**COURSE DESCRIPTION:**

Prerequisites: DLT 114 and DLT 116

Corequisites: None

This course includes instruction in advanced complete denture construction. Topics include overdentures, immediate dentures, cast metal bases, relines, rebases, repairs, and various occlusal relationships. Upon completion, students should be able to construct advanced complete denture prostheses following the dental prescription. Course Hours Per Week: Class, 2. Lab, 12. Semester Hours Credit, 6.

**LEARNING OUTCOMES:**

The student will:

- a. Practice proper infection control procedures.
- b. Explain procedures for tooth repair and denture base repair.
- c. Repair teeth and denture bases.
- d. Explain procedures for relining the denture base.
- e. Reline a denture base.
- f. Explain procedure for rebasing the denture base.
- g. Rebase a denture base.
- h. Describe the procedures for mounting casts on Hanau H2 articulator using the face-bow.
- i. Mount casts on the Hanau H2 articulator utilizing the face-bow transfer.
- j. Describe the procedure for mounting casts on Hanau H2 articulator utilizing central bearing device.
- k. Mount casts on the Hanau H2 articulator utilizing central bearing devices.
- l. Describe the purposes, advantages, and disadvantages of an overdenture.
- m. Construct a complete overdenture.
- n. Describe the purposes, advantages, and disadvantages of an immediate denture and surgical tray.
- o. Construct an immediate complete denture and surgical tray.
- p. Explain different occlusal patterns as they relate to complete denture construction.
- q. Give the reason for setting teeth in crossbite occlusion.
- r. Describe the procedure for setting teeth in crossbite occlusion.
- s. Construct complete dentures in crossbite occlusion utilizing 33 posterior teeth.
- t. Participate in-group research on various acrylic process techniques, and provide a written document and oral presentation.

**OUTLINE OF INSTRUCTION:**

- I. Diseases that may be contracted in the dental laboratory
  - A. Lecture - review of infection control
    - 1) Presentation
      - (a.) Types of diseases that may be contracted
      - (b.) Various methods that can be taken to reduce the risk of disease
    - 2) Application

- B. References
  - 1) Infection Control in the Dental Laboratory - R.R. Runnels
  - 2) NADL – Infection control program
  
- II. Repairing complete dentures
  - A. Lecture - one hour
    - 1) Presentation
      - (a.) Procedures for denture tooth repairs
      - (b.) Procedures for denture base repair
      - (c.) General considerations for types of denture repairs
    - 2) Application
  - B. Demonstration - one hour
    - 1) Denture tooth repair
    - 2) Denture base repair
  - C. References
    - 1) Dental Laboratory Technology, AFM, Volume II, pages 123-130
    - 2) Removable Prosthodontic Techniques, Chapter 17, pages 130-140
  
- III. Refitting complete dentures
  - A. Lecture - one hour
    - 1) Presentation
      - (a.) Purpose for relining the denture base
      - (b.) Various methods for refitting the denture
      - (c.) Procedures for refitting the denture
      - (d.) Purpose for rebasing the denture
        - (1) Advantages and disadvantages of the rebase
        - (2) Procedures for rebasing the denture
  - B. Application
  
- IV. Principles of Occlusion
  - A. Lecture - one hour session
    - 1) Presentation
      - (a.) Balanced complete denture occlusions using cusped teeth
      - (b.) Balanced complete denture occlusion using o teeth
      - (c.) Crossbite complete denture occlusions
    - 2) Application
  - B. Physiology of mandibular movements as they relate to complete denture construction
    - 1) Lecture - one hour session
      - (a.) Lateral movement
      - (b.) Protrusive movement
    - 2) Application
  - C. References
    - 1) Removable Prosthodontics, AFM Vol. II, 1991 pages 36-73
    - 2) Removable Prosthodontics Techniques, UNC Press pages 7-11 and 59-79
  
- V. Review of articulation and the Hanau H2 articulator
  - A. One-hour lecture
    - 1) Presentation
      - (a.) Parts of the Hanau H2 articulator

- (b.) Function of the Hanau H2 articulator
      - (c.) The types of movements of the articulator
      - (d.) Proper care of the articulator
    - 2) Application
  - B. References
    - 1) Removable Prosthodontic Techniques, pp. 43-51
    - 2) Dental Laboratory Technology, AFM, Volume II, pp. 32-37
- VI. Face-bow transfer
- A. One-hour lecture/demonstration (slides)
    - 1) Presentation
      - (a.) Parts and function of the face-bow
      - (b.) Clinical procedures for using the face-bow
      - (c.) Mounting casts on Hanau H2 articulator utilizing the face-bow transfer
    - 2) Application
  - B. References
    - 1) Removable Prosthodontic Techniques, pp 49-51
    - 2) Dental Laboratory Technology, AFM, Volume II, pages 31-36
- VII. Central bearing devices
- A. One-hour lecture - demonstration (slides-video)
    - 1) Presentation
      - (a.) Purpose for using central bearing devices
      - (b.) Types of central bearing devices
    - 2) Application
  - B. References
    - 1) Removable Prosthodontic Techniques, pp. 52-57
- VIII. Overdentures
- A. One-hour lecture
    - 1) Presentation
      - (a.) Purpose of the overdenture
      - (b.) Advantages of an overdenture
      - (c.) Disadvantages of an overdenture
      - (d.) Construction procedures for fabricating the overdenture
    - 2) Application
  - B. Demonstrations - three hours - Technique for fabricating a complete overdenture
    - 1) References - handout furnished by instructor
- IX. Immediate complete dentures and surgical trays
- A. One-hour lecture
    - 1) Presentation
      - (a.) Purpose of the immediate denture and surgical tray
      - (b.) Advantages of the immediate denture
      - (c.) Disadvantages of the immediate denture
      - (d.) Construction procedures for fabricating an immediate denture
    - 2) Application
  - B. Demonstrations - three hours - Techniques for fabricating an immediate denture and a surgical tray

- C. References
  - 1) Removable Prosthodontic Techniques, pp 141-147
  - 2) Dental Laboratory Technology, AFM, Volume II, pp. 113-118
  
- X. Maxillary and mandibular complete dentures in crossbite occlusion utilizing 33 posterior teeth
  - A. One-hour lecture
    - 1) Presentation
      - (a.) Considerations in setting teeth in crossbite occlusion
      - (b.) Arrangement of maxillary and mandibular anteriors
      - (c.) Arrangement of maxillary and mandibular posteriors
    - 2) Application
  - B. Demonstration - two hours
    - 1) Techniques for arranging maxillary and mandibular posterior teeth
    - 2) Techniques for arranging maxillary and mandibular anterior teeth
  - C. References
    - 1) Dental Laboratory Technology, AFM, Volume II pp. 69-72
  
- XI. Cast metal denture base
  - A. One-hour lecture
    - 1) Presentation
      - (a.) Materials used to construct a cast metal denture base
      - (b.) Advantages of cast metal bases
      - (c.) Disadvantages of cast metal bases
      - (d.) Factors governing tissue coverage by a cast metal base
      - (e.) Techniques for constructing a cast metal denture base
    - 2) Application
  - B. Demonstration - one hour - Technique for constructing a cast metal denture base
  - C. References
    - 1) Dental Laboratory Technology, AFM, Volume II, pp. 118-121
    - 2) Ticonium Technique Manual, pp. 15-16
  
- XII. Review of tooth selection
  - A. One-half-hour lecture
    - 1) Presentation
      - (a.) Acrylic resin teeth
        - (1) Advantages
        - (2) Disadvantages
      - (b.) Porcelain teeth
        - (1) Advantages
        - (2) Disadvantages
    - 2) Application
  - B. References
    - 1) Removable Prosthodontic Techniques, pp. 58-61
    - 2) Dental Laboratory Technology, AFM, Volume II, pp.119-121
  
- XIII. Student Research
  - A. Student oral presentations
  - B. Written documentation

## **REQUIRED TEXTBOOKS AND MATERIALS:**

Sowter. Removable Prosthodontic Techniques. University of North Carolina.  
Dental Laboratory Technology. AFM 162-6, Volume II, 1991. Department of the Air Force, Washington, D. C.  
A Portfolio on Prosthetics. Dentsply International Inc., York, Pa.,  
Ticonium Technique Manual. Ticonium Company, Albany, NY.  
Handouts

## **SUGGESTED REFERENCES, PERIODICALS, AND VISUAL AIDS:**

Denture Base Esthetics Contour and Color, 1982  
Overdentures in General Dental Practice, 1988  
Precision Attachments in Overdentures, 1984  
Journal of Dental Technology  
Practical Periodontics & Aesthetic Dentistry  
The Journal of Prosthetic Dentistry

## **STATEMENT FOR STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.