

**DLT 224**  
**DENTAL LAB PRACTICE**

**COURSE DESCRIPTION:**

Prerequisites: DLT 118, DLT 126, DLT 211, DLT 217, and all required General Education courses for the degree

Corequisites: DLT 215, and DLT 222

This course provides practical experience in the commercial laboratory setting. Emphasis is on all laboratory techniques pertaining to the specialty area. Upon completion, students should be able to function effectively in the commercial dental laboratory environment. Course Hours Per Week: Work Experience, 20. Semester Hours Credit, 2.

**LEARNING OUTCOMES:**

The student will be expected to demonstrate as many of the following job duties/competencies as appropriate while attending off-campus clinical activities.

- I. Cognitive skills:
  - a. Practice proper infection control procedures.
  - b. Ask questions when appropriate.
  - c. Accept supervision and direction.
  - d. Manage time effectively.
  - e. Work under time pressure.
  - f. Maintain OSHA standards.
  - g. Keep abreast of latest trends.
  - h. Interpret a properly written dental prescription.
  - i. Recognize defects in impressions.
  - j. Demonstrate knowledge of proper tooth anatomy and occlusion.
  
- II. Laboratory motor skills:
  - a. Fabricate model and die.
  - b. Mount casts in articulator.
  - c. Wax full metal crown inlays.
  - d. Wax full metal substructure for ceramic restorations.
  - e. Wax complete dentures.
  - f. Wax removable partial dentures.
  - g. Invest wax patterns.
  - h. Process acrylic restorations.
  - i. Finish and polish metal castings.
  - j. Prepare metal substructure to receive porcelain.
  - k. Apply and fire porcelain for ceramic restorations.
  - l. Grin-in contour and anatomy.
  - m. Stain and glaze restorations.
  - n. Pour impressions.
  - o. Construct custom impression trays.
  - p. Construct base plates and occlusion rims.
  - q. Survey master casts for removable partial denture frameworks.

- r. Block-out and duplicate casts for removable partial denture frameworks.
- s. Invest patterns for complete and partial dentures.
- t. Set teeth for complete dentures.
- u. Set teeth for removable partial dentures.
- v. Selectively grind artificial teeth.
- w. Finish and polish acrylic restorations.
- x. Reline, rebase, and repair dentures or partials.
- y. Construct wrought-wire clasps.
- z. Contour orthodontic clasps and arch wires.
- aa. Finish and polish orthodontic appliances.

## **OUTLINE OF INSTRUCTION:**

- I. Laboratory safety
  - a. OSHA
  - b. Appropriate clothing
  - c. Eye safety
  - d. Cross-contamination awareness
- II. Laboratory procedures
  - a. Complete denture techniques
  - b. Partial denture techniques
  - c. Crown and bridge techniques
  - d. Ceramic techniques
  - e. Orthodontic techniques

## **REQUIRED TEXTBOOKS AND MATERIALS:**

Wheeler. An Atlas of Tooth Form. 5th edition. Saunders.

Sowter. Dental Anatomy. U.N.C. Press.

Linek. Tooth Carving Manual. Columbia Dental Form.

Leinfelder. Laboratory and Clinical Dental Materials. U.N.C. Press, reprinted with permission.

Sowter. Removable Prosthodontic Techniques. U.N.C. Press.

U.S.A.F. Dental Laboratory Technology. Volumes I, II, and III, U.S. Government Printing Office.

All Handouts.

## **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 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.