

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: DNL 298

Credits: 3

Course Title: Seminar and Project in Dental Laboratory

Course Description: Provides students an opportunity to participate in lecture and dental laboratory experiences that include the following: basic prosthetic fabrication procedures in complete and partial dentures, fixed prosthetics, orthodontic appliances, and various articulators. Prerequisites: Acceptance into the Pre-Nursing and Allied Health, Dental Laboratory Technology CSC and Dental Laboratory Technology AAS degree program. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: The prospective dental technician must have a clear understanding of dental lab procedures and their limitations for patient use. These experiences will give dual enrollment students an understanding of basic dental lab fabrication procedures in preparation for entry-level employment positions in commercial dental laboratories. In addition, this course is accepted for credit in the AAS degree program in the Dental Lab Technology program to replace DNL 298, 1 credit, and DNL 231, 2 credits.

Course Prerequisites and Co-requisites:

Prerequisites: Acceptance into the Pre-Nursing and Allied Health, Dental Laboratory Technology CSC and Dental Laboratory Technology AAS degree program

Course Objectives:

Upon completing the course, the student will be able to:

- a. Fabricate bubble-free and accurate dental models with removable dies;
- b. Saw, trim, and ditch dies defining accurate margins;
- c. Use bite registration records for mounting casts using various articulators;
- d. Describe the use of the "face-bow" transfer for mounting casts;
- e. Set teeth on a quadrant edentulous and describe the processing and complete;
- f. Understand the principles of surveying and design of removable partial dentures;
- g. Wax, sprue, invest, burnout, and cast a complete veneer crown;
- h. Describe the laboratory procedures for fabrication of a porcelain fused to metal crown; and
- i. Fabricate an orthodontic retainer and understand the principles of orthodontic treatment.

Major Topics to Be Included:

- a. Principles of occlusion
- b. Pouring dental impressions and fabrication of removable dies
- c. Use of the "face-bow" transfer
- d. Waxing, investing, burnout, casting, and finishing of a full veneer crown
- e. Proper setting of flat plane denture teeth
- f. Processing complete dentures
- g. Surveying and design principles for removable partial dentures
- h. Orthodontic principles and fabrication procedures for Hawley retainers

Effective Date of Course Content Summary: January 1, 2010