

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: DNA 110

Credits: 3

Course Title: Dental Materials

Course Description: Studies the materials utilized in the laboratory aspect of dentistry as support in treatment. Emphasis is placed on the characteristics, manipulation, economical control, storage, and delivery of materials. Prerequisite: Completion of courses in the Health Science I Career Studies Certificate. Prerequisites or Co-requisites: DNA 100, DNA 103, DNA 108, DNA 109, DNA 113, and DNA 120. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: DNA 110 prepares the students for employment in that they will be successful in completing the laboratory work that is required by the dentist in treating the patients.

Course Prerequisites and Co-requisites:

Prerequisite: Completion of courses in the Health Science I Career Studies Certificate

Prerequisites or Co-requisites: DNA 100, DNA 103, DNA 108, DNA 109, DNA 113, and DNA 120

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Recognize the progress made through the years in order to provide higher quality dental materials used in the treatment of dental diseases and disorders;
- b. Determine the role of the various agencies involved in this progress;
- c. Define the dental assistant's role in the manipulations and delivery of materials during dental treatment;
- d. Describe the various kinds of dental materials that are used as medicaments and restoratives and auxiliary materials used in dental treatment;
- e. Identify the predictable life of restorations and the kinds of activities that will prolong the life of that material in the patient's mouth;
- f. Compare the various materials as to strength, viscosity, and the ability to withstand stresses, as well as temperature changes in the oral cavity;
- g. Identify and operate equipment associated with the manipulation of each material; and
- h. Mix and transport materials correctly.

Major Topics to Be Included:

- a. Characteristics of materials
- b. Gypsum products
- c. Impression materials
- d. The dental waxes
- e. The synthetic resins
- f. Cements, liners, and bases
- g. Restoratives
- h. Enamel and dentin adhesives
- i. Athletic mouth protectors

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