

DLT 217
CERAMIC TECHNIQUES

COURSE DESCRIPTION:

Prerequisites: DLT 126

Corequisites: None

This course includes the physical properties of metals and ceramics as well as the fabrication of porcelain fused to metal crowns, including porcelain shoulder margins. Emphasis is on infection control, model and die fabrication, metal substructure fabrication, build up, firing, and finishing of ceramic crowns. Upon completion, students should be able to complete single unit ceramic crowns. Course Hours Per Week: Class, 2. Lab, 9. Semester Hours Credit, 5.

LEARNING OUTCOMES:

The student will:

- a. Practice proper infection control procedures.
- b. Distinguish the different anatomic landmarks of the adult dentition.
- c. Show an understanding of the materials used during the manufacturing of a porcelain restoration.
- d. Demonstrate familiarity with the fabrication processes used in dental ceramics.
- e. Identify tooth preparations and types of margins for porcelain fused to metal crowns.
- f. Fabricate model and die.
- g. Apply principles of occlusion in the construction of porcelain restorations.
- h. Articulate models.
- i. Block out undercuts and trim dies.
- j. Form wax patterns for single copings for porcelain fused to metal substructure.
- k. Sprue and invest wax copings.
- l. Burn-out, cast, and finish metal copings.
- m. Apply The Color Theory to the characterization of ceramic restorations
- n. Degass and opaque metal copings.
- o. Complete porcelain build up on metal substructure.
- p. Fire porcelain.
- q. Grind to shape the fired crown.
- r. Glaze the porcelain restoration.
- s. Finish and polish metal portion of the crown.

OUTLINE OF INSTRUCTION:

- I. Introduction to porcelain fused to metal restorations
 - A. Classroom lecture
 - 1.) Presentation
 - (a.) Definitions

B.

B. References:

- 1.) Air Force Manual 162-6, Vol. III
- 2.) Pages 49-61
- 3.) UNC Fixed Restorative section 9

REQUIRED TEXTBOOKS AND MATERIALS:

Introduction to Metal Ceramic Technology, Naylor

All equipment in the dental lab kit (in good shape)

Required porcelain equipment

Dental Laboratory Technology, Department of Air Force, Volume III, 1991.

Technical Handouts provided by course requirements.

SUGGESTED REFERENCES:

NADL, Journal of Dental Technology

Mosby, The Journal of Prosthetic Dentistry

Montage, Practical Periodontics & Aesthetic Dentistry

STATEMENT FOR STUDENTS WITH DISABILITIES:

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