HIBBING COMMUNITY COLLEGE
COURSE OUTLINE

COURSE NUMBER & TITLE: DAS1528: Infection Control
CREDITS: 1 (1 Lec / 0 Lab)
PREREQUISITES: None

CATALOG DESCRIPTION:
Infection Control covers the major classifications of microorganisms, disease transmission, and infection control in the dental office. Compliance with current Occupational Safety and Health Agency (OSHA) and Center for Disease Control and Prevention (CDC) guidelines is discussed and practiced.

OUTLINE OF MAJOR CONTENT AREAS:
1. Classification of microorganisms
   A. Bacteria
      1. Examples of Diseases Caused by Bacteria
         a. Tuberculosis
         b. Legionellosis
         c. Diphtheria, pertussis, and tetanus
         d. Strep throat
         e. Staphylococcal infections
         f. Anthrax
         g. Chlamydiae
   B. Viruses
      1. Examples of Diseases Caused by Viruses
         a. Measles, mumps, and rubella
         b. Epstein-Barr
         c. Mononucleosis
         d. West Nile Virus
         e. Poliomyelitis
         f. Chickenpox
         g. Common cold and influenza
   C. Protozoa
      1. Examples of Diseases Caused by Protozoa
         a. Amebic dysentery
         b. Periodontal disease
         c. Malaria
   D. Fungi – Yeast & Molds
      1. Candidiasis
      2. Tinea
2. Disease transmission
   A. Droplet
   B. Indirect
   C. Self-infection
   D. Operator infection
   E. Personal contact
   F. Carrier

3. Identifying high-risk patients
   A. Medical history
   B. Universal Precautions/Standard Precautions

4. Infection Control Techniques in the Dental Office
   A. Immunizations
   B. Medical history
   C. Handwashing
   D. Alcohol-Based Hand Rubs
   E. Lotions
   F. Personal Protective Equipment
   G. Barriers
   H. Sterilization and disinfection of hand and rotary instruments
      1. Hand-scrub/ ultrasonic cleaning/thermal disinfecter
      2. Autoclaving
         a. Autoclave wrap
         b. Sterilization verification
         c. Maintaining sterility
      3. Dry heat sterilization
      4. Chemical vapor sterilization
      5. Glass bead sterilization

5. Disinfecting the operatory

6. Barriers

7. Laboratory asepsis
   A. Impressions
   B. Prostheses and equipment

8. Hazardous materials in dentistry
   A. Material Safety Data Sheets
   B. Labeling
   C. Training
   D. Hazardous dental material inventory

9. Handling and disposals of sharps

10. Sterilization monitoring
    A. Biological Monitors
    B. Process Indicators
    C. Dosage Indicators

11. Techniques and Aids for Infection Control
A. Preprocedure Antiseptic Mouth Rinse
B. High-Volume Evacuation
C. Dental Dam Usage
D. Disposable Items

12. Clinical Asepsis Protocol
   A. Treatment Area Protocol for Disinfecting and Cleaning

13. Dental Unit Waterlines
14. Dental Radiography Room and Equipment

COURSE GOALS/OBJECTIVES/OUTCOMES:
1. Students will explain and identify the groups of microorganisms and characteristics pertaining to bacteria and viruses.
2. Students will identify and describe the disease process and the methods of disease transmission.
3. Students will identify and describe high-risk patients and universal/standard precautions.
4. Students will identify personal protection barriers and perform placing barriers in operatory.
5. Students will explain sterilization and disinfection procedures.
6. Students will identify and describe the usage of different types of sterilizers and sterilization monitors and demonstrate autoclave procedure.
7. Students will explain and list disinfection techniques, various disinfectants, and their applications used in dentistry and demonstrate disinfecting the operatory and impressions.
8. Students will identify the proper usage of pre-procedure mouth rinses, high-volume evacuation, dental dams and disposable items.
9. Students will identify the agencies regulating the dental profession.
10. Students will explain the OSHA hazard program and identify the forms required by the OSHA and CDC.
11. Students will demonstrate the correct protocol for disinfecting, cleaning, and sterilizing prior to seating the patient, as well as at the end of the dental treatment, in the dental radiography area, and the dental laboratory.

MNTC GOALS AND COMPETENCIES MET:
N/A

HCC COMPETENCIES MET:
Working Productively & Cooperatively
Communicating Clearly & Effectively
Thinking Creatively & Critically
Social / Civic Responsibility
STUDENT CONTRIBUTIONS:
Attendance is crucial in this class. The student is expected to attend all lectures and working sessions, participate and implement input into class discussions, fill out appropriate CDC and OSHA forms in class, and hand in lab projects and assignments when due.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

Curriculum Committee Approval Date: May 1, 2018

AASC APPROVAL DATE: May 9, 2018
REVIEW DATE: May 2023