



Western Technical College

10508101 Dental Health Safety

Course Outcome Summary

Course Information

Description	Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assisting programs.
Career Cluster	Health Science
Instructional Level	One-Year Technical Diploma
Total Credits	1
Total Hours	36

Textbooks

OSHA & CDC Guidelines: OSAP Interact Training System. 6th Edition. Copyright 2020. Publisher: Organization for Safety Asepsis and Prevention. **ISBN-13:** 978-0-975-25193-5. Required.

Learner Supplies

Safety Glasses. **Vendor:** Campus Shop. Required.

Lab Coat. **Vendor:** To be discussed in class. Required.

Utility Gloves. **Vendor:** To be discussed in class. Required.

Red Western Program Patch - \$3.50. **Vendor:** To be discussed in class. Required.

Uniform: Black lab jacket, black pants, tennis shoes. **Vendor:** To be discussed in class. Required.

Success Abilities

1. Cultivate Passion: Increase Self-Awareness
2. Live Responsibly: Develop Resilience
3. Live Responsibly: Foster Accountability
4. Refine Professionalism: Act Ethically
5. Refine Professionalism: Improve Critical Thinking
6. Refine Professionalism: Participate Collaboratively
7. Refine Professionalism: Practice Effective Communication

Program Outcomes

1. DA-1 year: Manage infection and hazard control
2. DA-1 year: Demonstrate professional behaviors, ethics, and appearance

Course Competencies

1. Analyze infections that may influence the practice of dentistry.

Assessment Strategies

- 1.1. in the completion of a classification worksheet in which you analyze infections that may influence the practice of dentistry
- 1.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as a part of this course. You will be notified in advance.)

Criteria

You will know you are successful when

- 1.1. you include microbes commonly found in dentistry.
- 1.2. you identify significant characteristics of bacteria, viruses, and fungi.
- 1.3. you identify diseases and treatment common and relevant to dentistry according to the microbes that cause them.
- 1.4. you include comparison of mode of transmission, symptoms, and treatment for all types of hepatitis.
- 1.5. you include mode of transmission, symptoms, and treatment for HIV positive patients and AIDS patients.
- 1.6. you include mode of transmission, symptoms, and treatment for herpes.
- 1.7. you include mode of transmission, symptoms, and treatment for tuberculosis.
- 1.8. you organize and format your classification using graphics or headers.
- 1.9. you use correct grammar, punctuation, and spelling in your classification.

Learning Objectives

- 1.a. Describe the diseases of major concern to the dental assistant and explain why they cause concern.
- 1.b. Identify characteristics pertaining to the microorganism bacterium.
- 1.c. Identify characteristics pertaining to the microorganism viruses.
- 1.d. Identify characteristics pertaining to the microorganism fungi.
- 1.e. Describe how microorganisms cause disease, the types of infections and the stages of infectious diseases.
- 1.f. Describe the function of the immune system.
- 1.g. Identify symptoms, mode of transmission, and treatment for all types of hepatitis.
- 1.h. Identify symptoms, mode of transmission, and treatment for HIV positive patients and AIDS patients.

- 1.i. Identify symptoms, mode of transmission, and treatment for herpes.
- 1.j. Identify symptoms, mode of transmission, and treatment for tuberculosis.

2. Adhere to OSHA Hazardous Communication standard.

Assessment Strategies

- 2.1. by completing the HAZCOM worksheet
- 2.2. by labeling products transferred from original containers
- 2.3. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as a part of this course. You will be notified in advance.)

Criteria

You will know you are successful when

- 2.1. you employ safety precautions.
- 2.2. you wear personal protective equipment.
- 2.3. you complete your worksheet by interpreting Safety Data Sheets.
- 2.4. you correctly sort your worksheet items into the HAZCOM categories.
- 2.5. you include employee training for HAZCOM in your worksheet.
- 2.6. you use correct grammar, punctuation, and spelling in your worksheet.
- 2.7. you show adherence to OSHA HAZCOM standard in your worksheet.
- 2.8. you label products to match the information on the Safety Data Sheet.
- 2.9. you wear personal protective equipment.

Learning Objectives

- 2.a. Identify various government, national and professional agencies associated with infection control procedures
- 2.b. Describe the importance of maintaining a hazard communication program and the necessary components
- 2.c. Describe the purpose and use of MSDS and labeling requirements
- 2.d. Describe MSDS manual contents
- 2.e. Identify the location of the MSDS manual
- 2.f. Describe record-keeping requirements related to staff safety training
- 2.g. Identify the personal protective equipment required
- 2.h. Determine safety procedures when labeling products

3. Employ personal and patient protection to prevent disease transmission.

Assessment Strategies

- 3.1. by employing personal and patient protection in a skill demonstration
- 3.2. in the clinic using a role-play patient or mannequin

Criteria

You will know you are successful when

- 3.1. you perform according to standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 3.2. you perform handwashing technique.
- 3.3. you wear protective eyewear, mask, gloves, and gown.
- 3.4. you provide your patient with protection of glasses and drape.

Learning Objectives

- 3.a. Describe the components of OSHA's Bloodborne Pathogen Standard and the responsibilities of the dental team to implement them.
- 3.b. Describe OSHA mandated universal precautions and examples of the required components.
- 3.c. Identify recommended immunizations.
- 3.d. List the steps in an effective handwashing technique.
- 3.e. Compare and contrast the benefits and limitations of personal and patient protective barriers.
- 3.f. Relate principles of infection control to protect the practice, the patient, and members of the dental team from cross-contamination.

4. Reprocess treatment area.

Assessment Strategies

- 4.1. in reprocessing the treatment room by completing a skill demonstration in the clinic

Criteria

You will know you are successful when

- 4.1. you perform according to standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 4.2. you wear personal protective equipment.
- 4.3. you select the most effective disinfectant.
- 4.4. you follow manufacturer's product specifications.
- 4.5. you remove all barriers.
- 4.6. you remove all contaminated items from operatory and take to sterilization area.
- 4.7. you clean and disinfect all treatment room equipment.
- 4.8. you prepare treatment room for the next patient.
- 4.9. you prepare laboratory case for shipment from an aseptic standpoint.
- 4.10. you employ safety precautions.
- 4.11. you use infection control protocol.

Learning Objectives

- 4.a. Differentiate among the terms asepsis, disinfection and sterilization.
- 4.b. Identify sources of cross contamination in the operatory setting.
- 4.c. Identify methods of reducing contaminated aerosols in the operatory.
- 4.d. Compare chemical disinfectants used for surface equipment disinfection.
- 4.e. Identify situations when sterilization, disinfection or barrier techniques are appropriate.
- 4.f. Explain how infectious waste, including contaminated sharps, is isolated in the practice setting.
- 4.g. Sequence the steps of reprocessing a treatment room.
- 4.h. Identify specific infection control considerations unique to the dental laboratory setting.
- 4.i. Describe current ADA, CDC, and OSAP recommendations on dental office water line safety.
- 4.j. Identify the personal protective equipment required.
- 4.k. Determine safety procedures when reprocessing treatment area.
- 4.l. Identify appropriate aseptic techniques when reprocessing treatment area.

5. Reprocess instruments.

Assessment Strategies

- 5.1. by reprocessing instruments by completing a skill demonstration
- 5.2. in the laboratory/clinic

Criteria

You will know you are successful when

- 5.1. you perform according to standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 5.2. you wear personal protective equipment.
- 5.3. you differentiate instruments for method of post-treatment processing.
- 5.4. you transport instruments for processing.
- 5.5. you clean instruments.
- 5.6. you select the most effective disinfectant or sterilant.
- 5.7. you package instruments.
- 5.8. you sterilize/disinfect instruments.
- 5.9. you deliver and/or store sterile/disinfected instruments.
- 5.10. you perform chemical monitoring of the sterilizer.
- 5.11. you perform biological monitoring of the sterilizer.
- 5.12. you employ safety precautions.
- 5.13. you use infection control protocol.

Learning Objectives

- 5.a. Compare chemical disinfectants/sterilants used for instrument processing.
- 5.b. Differentiate among critical, semi-critical, and non-critical items, with relation to instrument processing.
- 5.c. Compare and contrast the methods of cleaning instruments.
- 5.d. Explain the role of a holding solution in instrument reprocessing.
- 5.e. Identify the steps in instrument reprocessing.
- 5.f. Explain engineering controls and work practices used to prevent exposure when handling, transporting, and packaging contaminated instruments.

- 5.g. Explain the function and process of packaging instruments for reprocessing.
- 5.h. Identify the methods utilized to sterilize instruments.
- 5.i. Describe how to properly load the sterilizer.
- 5.j. Compare and contrast methods of sterilization monitoring.
- 5.k. Explain the role of biological monitoring in the prevention and transmission of infectious diseases.
- 5.l. Identify the personal protective equipment required.
- 5.m. Determine safety procedures when reprocessing instruments.
- 5.n. Identify appropriate aseptic techniques when reprocessing instruments.

6. Manage wastes safely.

Assessment Strategies

- 6.1. in managing waste by completing a skill demonstration in the clinic/laboratory
- 6.2. by answering questions that require you to apply knowledge about this competency (Your instructor may require several written exams as a part of this course. You will be notified in advance.)

Criteria

You will know you are successful when

- 6.1. you perform according to standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 6.2. you properly handle regulated medical waste.
- 6.3. you properly handle non-regulated medical waste.
- 6.4. you properly dispose of sharps.
- 6.5. you properly manage personal protective equipment.
- 6.6. you wear personal protective equipment.
- 6.7. you employ safety precautions.
- 6.8. you use infection control protocol.

Learning Objectives

- 6.a. Compare and contrast the various classifications of waste in the dental office.
- 6.b. Provide an example for the categories of waste (ie., medical, hazardous, infectious, contaminated, general).
- 6.c. Explain how to handle contaminated personal protective equipment.
- 6.d. Explain the steps in managing regulated waste.
- 6.e. Identify the personal protective equipment required.
- 6.f. Determine safety procedures when managing waste.
- 6.g. Identify appropriate aseptic techniques when managing waste.

7. Collect patients' medical/dental histories.

Assessment Strategies

- 7.1. in the completion of a medical history in a skill demonstration with a role-play patient
- 7.2. in the completion of a dental history in a skill demonstration with a role-play-patient

Criteria

You will know you are successful when

- 7.1. you greet and address the patient by name.
- 7.2. you explain the purpose of the medical/dental history and assure patient confidentiality.
- 7.3. you document all relevant information that the patient tells you.
- 7.4. you pronounce all terms correctly and are able to explain them to the patient in lay terms.
- 7.5. you communicate professionally with the patient.
- 7.6. you complete the medical/dental history in 15 minutes.
- 7.7. you record medical/dental history legibly and in black ink.
- 7.8. you ensure medical/dental history corrections are crossed out with a single line and initialed and dated.
- 7.9. you ensure medical/dental history includes clarification of all noted medical conditions.
- 7.10. you ensure medical/dental history is completely filled out and all questions have responses.
- 7.11. you ensure medical/dental history red flags medical/dental alerts.
- 7.12. you ensure medical/dental history is signed and dated.
- 7.13. you ensure patient's records show accurate, up-to-date documentation of treatment and services.

Learning Objectives

- 7.a. List and describe the essential elements of a medical/dental history form.

- 7.b. List the purpose for completing a medical/ dental history before performing dental treatment.
- 7.c. Outline the steps in completing a medical/dental history form.
- 7.d. Identify items on the medical/dental history that would alert the dentist.
- 7.e. Explain the importance of the concept of privileged communication and patient confidentiality.
- 7.f. Relate how to interact with a patient while obtaining a medical/dental history.
- 7.g. Relate strategies in dealing with a difficult patient.
- 7.h. Describe the concern for latex allergy and methods to reduce latex exposure.

8. Take patient's vital signs.

Assessment Strategies

- 8.1. by measuring and recording vital signs on role-play patient in a skill demonstration
- 8.2. by comparing your readings to those obtained by the instructor

Criteria

You will know you are successful when

- 8.1. you select the armamentarium.
- 8.2. you position yourself and patient correctly while taking vital signs.
- 8.3. you explain each of the vital signs to patient.
- 8.4. you take each of the vital signs.
- 8.5. you record each reading accurately on the patient record in black ink.
- 8.6. you verify your readings with those of your instructor.
- 8.7. you wear personal protective equipment.
- 8.8. you employ safety precautions.
- 8.9. you use infection control protocol.
- 8.10. you ensure accurate, up-to-date documentation of treatment and services on patient's records.

Learning Objectives

- 8.a. List the four vital signs.
- 8.b. Describe the armamentarium required for taking vitals.
- 8.c. Describe how to obtain and record the pulse of a patient.
- 8.d. Describe how to obtain and record the respiration of a patient.
- 8.e. Describe how to obtain and record the blood pressure of a patient.
- 8.f. Describe how to obtain and record the temperature of a patient.
- 8.g. Identify the personal protective equipment required.
- 8.h. Determine safety procedures when taking patient vitals.
- 8.i. Identify appropriate aseptic techniques when taking patient vitals.

9. Maintain equipment and supplies used for dental office emergencies.

Assessment Strategies

- 9.1. by completing an oxygen tank maintenance checklist
- 9.2. by maintaining the emergency kit in the clinic/lab setting

Criteria

You will know you are successful when

- 9.1. you identify equipment and supplies used for dental office medical emergencies (DOME).
- 9.2. you appropriately care for equipment and supplies used for DOME.
- 9.3. you perform an oxygen tank maintenance check.
- 9.4. you identify contents of an emergency kit.
- 9.5. you keep contents of emergency kit current.
- 9.6. you employ safety precautions.

Learning Objectives

- 9.a. Identify the equipment necessary to manage dental office emergencies.
- 9.b. Establish a maintenance plan to insure proper function of emergency equipment.
- 9.c. Utilize a maintenance schedule for the inspection and/or replenishment of the contents of a dental office emergency kit
- 9.d. Describe the parts of an oxygen tank and the procedure for checking the pressure.
- 9.e. Determine safety procedures when maintaining equipment and supplies used for dental office emergencies.

10. Handle dental office chemical emergencies.

Assessment Strategies

- 10.1. by responding to a chemical emergency scenario in the clinic/laboratory
- 10.2. given an SDS Manual
- 10.3. by completing an incident report

Criteria

You will know you are successful when

- 10.1. you determine the type of chemical involved.
- 10.2. you refer to the SDS for the specific chemical.
- 10.3. you wash or flush affected areas if indicated on the SDS.
- 10.4. you determine if there is a need for medical attention according to the SDS
- 10.5. you obtain medical attention, using appropriate level of urgency.
- 10.6. you follow appropriate post-exposure containment steps.
- 10.7. you wear personal protective equipment.
- 10.8. you employ safety precautions.
- 10.9. you use infection control protocol.
- 10.10. you complete an incident report
- 10.11. you ensure incident report is accurate, complete, legible, and exhibits correct use of terminology and Standard English.
- 10.12. you propose strategies for avoiding further chemical emergencies of this nature.

Learning Objectives

- 10.a. Give examples of the types of chemical emergencies that could occur in a dental office
- 10.b. Describe the damage that can be done by accidental chemical exposure
- 10.c. Explain the importance of using the correct MSDS
- 10.d. Demonstrate the use an eye wash station
- 10.e. Demonstrate flushing procedures for other parts of the body that may be exposed
- 10.f. Illustrate the importance of obtaining medical treatment in a timely manner
- 10.g. Describe the post-exposure containment procedures
- 10.h. Describe how to prepare a chemical exposure incident report
- 10.i. Explain the hazard abatement procedures for handling, storage and disposal of chemicals
- 10.j. Identify the personal protective equipment required
- 10.k. Determine safety procedures when handling dental office chemical emergencies
- 10.l. Identify appropriate aseptic techniques when handling dental office chemical emergencies

11. Handle dental office medical emergencies.

Assessment Strategies

- 11.1. by responding to a medical emergency scenario in the clinic/laboratory
- 11.2. by completing an incident report

Criteria

You will know you are successful when

- 11.1. you determine the type and severity of medical emergency that is occurring.
- 11.2. you follow standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 11.3. you follow chain of command using appropriate urgency.
- 11.4. you prioritize response in order of urgency.
- 11.5. you perform CPR if indicated.
- 11.6. you take steps to control bleeding if needed.
- 11.7. you monitor patient's vital signs.
- 11.8. you make the patient as comfortable as possible.
- 11.9. you wear personal protective equipment.
- 11.10. you employ safety precautions.
- 11.11. you use infection control protocol.
- 11.12. you complete an incident report.
- 11.13. you ensure incident report is accurate, complete, legible, and exhibits correct use of terminology and Standard English.

Learning Objectives

- 11.a. Describe the types of medical emergencies that you might encounter in a dental office.
- 11.b. Recognize the signs and symptoms of common medical emergencies.
- 11.c. Classify medical emergencies according to their severity and need for urgency.
- 11.d. Explain the importance of following the chain of command in response to a medical emergency.
- 11.e. Show how you would use CPR to respond to a medical emergency.
- 11.f. Demonstrate techniques for controlling bleeding.
- 11.g. Identify strategies for making a patient comfortable during a medical emergency.
- 11.h. Describe how to prepare a medical emergency incident report.
- 11.i. Explain the procedure of administering oxygen.
- 11.j. Identify the personal protective equipment required.
- 11.k. Determine safety procedures when handling dental office medical emergencies.
- 11.l. Identify appropriate aseptic techniques when handling dental office medical emergencies.

12. Handle dental office infectious exposure emergencies.

Assessment Strategies

- 12.1. by responding to an infectious emergency scenario in the clinic/laboratory
- 12.2. by completing an incident report

Criteria

You will know you are successful when

- 12.1. you correctly identify infectious emergencies.
- 12.2. you follow standard precautions as spelled out in the OSHA Bloodborne Pathogen standard.
- 12.3. you determine the nature of the exposure (i.e., mucous membrane, puncture, respiratory, skin).
- 12.4. you carry out the appropriate procedure as described in the protocol sheet for your facility.
- 12.5. you follow the Bloodborne Pathogen Standard when indicated.
- 12.6. you wear personal protective equipment.
- 12.7. you employ safety precautions.
- 12.8. you use infection control protocol.
- 12.9. you complete an incident report.
- 12.10. you ensure incident report is accurate, complete, legible, and exhibits correct use of terminology and Standard English.
- 12.11. you propose strategies for avoiding further infectious emergencies of this nature.

Learning Objectives

- 12.a. Give examples of the types of infectious exposure that could occur in a dental office.
- 12.b. Describe the dangers of exposure to infectious diseases.
- 12.c. Explain the importance of using the correct protocol sheet.
- 12.d. Explain the procedures for responding to bloodborne pathogen exposure.
- 12.e. Explain the procedures for responding to sharps incident.
- 12.f. Describe the post-exposure containment procedures.
- 12.g. Explain how to prepare an infectious exposure incident report.
- 12.h. Identify the personal protective equipment required.
- 12.i. Determine safety procedures when handling dental office infectious exposure emergencies.
- 12.j. Identify appropriate aseptic techniques when handling dental office infectious exposure emergencies.