

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: DHYG 101 & DHYG 101 L Department: Dental Hygiene

Course Title: Clinical Practice 1 Semester: Spring Year: 1997

Objectives/Competencies

Course Objective	Competencies
1. Upon completion of course lectures, multi-media presentations, video presentations and laboratory exercises, the dental hygiene student will:	<ol style="list-style-type: none">1. Understand and value the knowledge and skills learned and apply them to patient examination, assessment, treatment and instruction.2. Understand and apply the beginning phases of basic instrumentation.3. Understand and apply the beginning phases of basic instrumentation.4. Understand and value the importance of protective barriers for patient and clinician protection.5. Understand and value the Universal Procedures for the prevention disease.6. Properly perform clinical procedures necessary for optimal infection control7. Justify the need and importance of a meaningful complete medical/dental history in the total care of the patient.8. Understand and value the importance of monitoring and recording vital signs.9. Understand and value the importance of thorough general

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	<p>and oral inspection in the total care of the patient.</p> <ol style="list-style-type: none"> 10. Understand and recognize medical and dental emergencies. 11. Perform necessary first aid for medical and dental emergencies. 12. Understand the importance of oral microorganisms and their by-products in the initiation and progression of dental disease. 13. Understand and value the importance of thorough oral infection control 14. Understand and value the role of dental calculus in dental disease. 15. Understand and recognize dental stains. 16. Understand the concept of dental caries and the importance of microbial by products in caries initiation and progression. 17. Understand G. V. Black's Classification and be able to appropriately chart dental problems utilizing the classification. 18. Understand the concept of periodontal disease and the relationship contributing factors have to the disease. 19. Understand and value the importance of patient education in preserving oral health. 20. Apply principles and skills to remove extrinsic stains from the dentition. 21. Justify the need and importance of maintaining sharp, properly contoured instruments.

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<p>2. Understand and apply the beginning phases of basic instrumentation.</p>	<p>22. Apply principles and skills to properly sharpen instruments.</p> <p>23. Understand and value the role fluoride has in the promotion of oral health in individuals.</p> <ol style="list-style-type: none"> 1. Define: Oral prophylaxis, instrumentation, scaling, debridement, root planing, polishing, instrument stroke, adaptation, long axis of the tooth. 2. Label and describe the 3 basic instrument parts. 3. Describe instrument balance. 4. Differentiate between the functional shank and the terminal shank of an instrument. 5. Discuss the need for various shank lengths, thickness and angulations on dental instruments. 6. Identify instruments according to: class, manufacturer, design name, design number. 7. Describe the basic functions of an instrument grasp. 8. Differentiate between the modified pen grasp and palm grasp. 9. State the uses of the modified pen grasp and palm grasp. 10. Demonstrate the proper finger and hand positions for the modified pen grasp and the palm grasp. 11. Define fulcrum. 12. List the functions of a fulcrum 13. Discuss the importance of the fulcrum placement position. 14. Describe the various types of strokes.

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<p>3. Understand and value the importance of operator/patient positioning.</p> <p>4. Understand and value the importance of the prevention of disease transmission in the practice of dentistry.</p>	<p>15. Describe the various stroke directions.</p> <p>16. Discuss the characteristics of a well-adapted instrument.</p> <p>17. List the uses of the mouth mirror.</p> <p>18. List and describe the different types of mirror head surfaces.</p> <p>19. Demonstrate and describe the proper use of the mouth mirror for: indirect vision, illumination, retraction, transillumination.</p> <p>20. Describe the types of stimuli utilized with the dental explorer.</p> <p>21. List the uses of the dental explorer.</p> <p>22. Demonstrate and describe the proper technique for the dental explorer.</p> <p>1. List the basic components of the dental operator.</p> <p>2. Utilize proper methods in operating the dental unit.</p> <p>3. Discuss and utilize correct operator/patient positioning during instrumentation.</p> <p>4. Identify necessary changes to correct improper operator and/or patient positioning.</p> <p>5. Discuss operator positions for various areas of the oral cavity.</p> <p>6. Verbalize and demonstrate the best procedure for utilization of the dental light.</p> <p>1. Discuss the infectious process including the essential features for disease transmission.</p>

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<p>5. Understand and value the importance of proper personal protective equipment (PPE) for the HCW and patient in the prevention of disease transmission.</p>	<ol style="list-style-type: none"> 2. Discuss the intervention steps that could be taken to break the chain of disease transmission. 3. Differentiate between the types of airborne infection. 4. Differentiate between OSHA requirements and CDC/ADA recommendations. 5. Discuss the impact that OSHA requirements and CDC/ADA recommendations have on dentistry. 6. Discuss why Hepatitis B was utilized as the model for infection control procedures. 7. Discuss the mechanisms for transfer of infectious diseases. 8. Differentiate among the pathogens transmissible by the oral cavity. 9. Discuss approaches for clinical management that may be taken to prevent transmission of the various diseases discussed. 10. Differentiate among the infectious diseases transmitted by the oral cavity. 11. Define: autogenous, aerosol, splatter, vehicle, direct transmission, indirect transmission, droplet. 12. Discuss the concept of Universal Precautions. <ol style="list-style-type: none"> 1. Discuss the recommendation for Universal Precautions for Health Care Workers (HCW). 2. Explain the importance of immunization against vaccine-preventable diseases. 3. Describe what is considered acceptable Personal

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<p>6. Understand and value the importance of prevention of disease transmission for the operator and the patient.</p>	<p>Protective Equipment in dentistry.</p> <ol style="list-style-type: none"> 4. Describe what is considered to be barrier protection for HCW and patients. 5. Discuss the proper criteria for gown or uniform selection. 6. Discuss the importance of utilizing face masks and protective eyewear in the practice of dental hygiene. 7. Describe the proper criteria for face mask selection. 8. Describe the proper criteria for protective eyewear selection. 9. Explain the importance of proper hand care and hand washing to prevent disease transmission. 10. Discuss the importance of utilizing gloves during all dental procedures. 11. Discuss the importance of utilizing utility gloves during unit cleanup and disinfection. 12. Describe the proper criteria for glove selection. 13. Demonstrate the proper placement and removal of PPE. <ol style="list-style-type: none"> 1. Discuss the objective of infection control 2. Describe the basic steps in the recirculation of instruments from appointment completion through instrument sterilization and reuse. 3. List the advantages of ultrasonic instrument processing over manual instrument processing. 4. Explain the rationale for proper instrument cleaning prior to sterilization. 5. Describe the basic methods for packaging instrument prior

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<p>7. Select the best method of sterilization and disinfection for the materials or items being treated.</p>	<p>to sterilization.</p> <ol style="list-style-type: none"> 6. Explain the importance of the use of chemical indicators and biological spore testing in infection control. 7. Demonstrate concern for the welfare of self and patient by following the recommended procedures for sterilization and disinfection. 8. Explain the rationale for thorough disinfection of the dental treatment facility prior to each patient treatment. 9. Discuss the importance of wearing utility gloves, face mask and glasses during all instrument and unit cleanup procedures. 10. Maintain the chain of asepsis throughout dental procedures. 11. List the basic universal procedures for clinical management for prevention of disease transmission. 12. Discuss the management of occupation accidental exposure to blood or body fluids. <ol style="list-style-type: none"> 1. Differentiate among sterilization, disinfection, sanitization and contamination. 2. Differentiate among high level, intermediate level and low level disinfectants. 3. List the properties of an ideal disinfectant. 4. List the criteria for selection of a chemical agent. 5. Compare and contrast the different methods of sterilization and disinfection including advantages and disadvantages.

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<p>8. Justify the need and importance of a meaningful complete medical history and recording of vital signs.</p> <p>9. Understand and recognize medical and dental emergencies.</p>	<p>6. Demonstrate the ability to properly operate equipment utilized for sterilization.</p> <p>7. Properly perform and record results of biological spore testing.</p> <p>8. Describe the guidelines for disposal of hazardous waste differentiating among infectious waste, non-infectious waste and sharps.</p> <p>1. Describe the rationale for obtaining a complete health history prior to treatment of patient.</p> <p>2. Record an accurate health history asking pertinent questions of the patient.</p> <p>3. Recognize conditions from the information obtained that need special considerations prior to and during treatment.</p> <p>4. Differentiate between different types of medical history forms citing advantages and disadvantages.</p> <p>5. Choose a medical history form that is adequate for your needs and justify your choice.</p> <p>6. Discuss the importance of prophylactic premedication for at risk patients.</p> <p>7. List the proper premedication regimens for the prevention of infective conditions.</p> <p>8. Discuss the importance of obtaining vital signs in proper systemic evaluation of patients.</p> <p>9. Describe the proper criteria for obtaining vital signs.</p> <p>10. List the normal ranges of vital signs.</p> <p>11. Demonstrate the proper technique for obtaining vital</p>

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<p>10. Perform first aid for medical/dental emergencies.</p> <p>11. Understand and value the importance of a thorough general and oral inspection in the total care of the patient.</p>	<p>signs.</p> <p>12. Discuss the recommendations for follow-up based on blood pressure measurements.</p> <p>1. Describe the Universal Treatment for Emergencies followed in the STCC Dental Hygiene Clinic.</p> <p>2. Given any of the clinical emergencies discussed in class, state the signs and symptoms of each.</p> <p>3. Given any of the clinical emergencies discussed in class, describe the appropriate first aid procedure for each.</p> <p>1. Perform the Universal Treatment for Emergencies.</p> <p>2. Perform in simulated experiences the indicated treatment for clinical emergencies that have been discussed in class.</p> <p>3. Locate the following items utilized in an emergency procedure: ammonia ampules, cakemate/sugar packet, emergency kit, eyewash faucet, ambubag, oxygen, fire extinguisher, fire blanket, emergency pull cord, nearest phone.</p> <p>1. Summarize the rationale for performing a thorough general and oral inspection.</p> <p>2. List and define 5 specific methods utilized in a thorough extra-oral and intra-oral inspection.</p> <p>3. Value annual screenings of patients for lesion suspicious of cancer.</p> <p>4. List and perform the systematic steps in a thorough extra</p>

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<p>12. Understand the role plaque has in the initiation and progression of dental diseases.</p>	<p>and intra-oral inspection.</p> <ol style="list-style-type: none"> 5. Identify and describe the appearance of “normal” oral structures. 6. Utilizing the correct technique of inspection and palpation, perform a thorough extra and intra-oral inspection. 7. Describe deviations from “normal“ found in the oral cavity and identify them to an instructor. 8. Record all findings during the examination on proper clinic forms utilizing proper dental terminology. 9. Describe particular extra and intra-oral characteristics indicative of abuse or neglect. 10. Describe particular physical and behavioral factors indicative of substance abuse. 11. Differentiate among abuse, neglect and dental neglect. <ol style="list-style-type: none"> 1. Differentiate among the following: dental plaque, acquired pellicle, materia alba, calculus, food debris. 2. Discuss the living environment of dental plaque. 3. Differentiate between symbiosis and synergism. 4. Differentiate between the Non-specific Plaque Hypothesis and the Specific Plaque Hypothesis. 5. Discuss the current theories of plaque formation. 6. Explain the role of the acquired pellicle in the formation of dental plaque. 7. Differentiate among Unstained Pellicle, Stained Pellicle, and Subsurface Pellicle.

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<p>13. Understand and apply the principles of instrumentation.</p>	<ol style="list-style-type: none"> 8. Discuss the composition of bacterial plaque. 9. Describe the stages of plaque formation from onset plaque to mature plaque. 10. List the factors that influence growth conditions of subgingival plaque. 11. Differentiate between the role of adherent plaque and non-adherent plaque in disease processes. 12. List the 3 processes that can occur from plaque accumulation.
<p>14. Understand and value the importance of thorough plaque control.</p>	<ol style="list-style-type: none"> 1. Discuss the design features of the Universal Curet. 2. Describe the proper criteria for selection of the Universal Curet. 3. State the criteria for determining the correct working end of an instrument. 4. Describe the principles of: instrument insertion, instrument adaptation, instrument angulation, instrument activation. 5. Describe the concept of lateral pressure. 6. Differentiate between the exploratory stroke and the working stroke. 7. Verbalize and demonstrate the proper technique utilized with the Universal Curet. 8. List the purposes of utilizing compressed air. 9. Describe the proper technique for utilizing compressed air.

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<p>15. Understand and value the role of dental calculus in dental disease.</p>	<ol style="list-style-type: none"> 1. Explain the objective of plaque control. 2. Describe and demonstrate the toothbrushing technique best suited for the needs of each patient. 3. Explain the importance of proper toothbrush selection and factors influencing selection. 4. Discuss the correlation between recession and cervical abrasion as it relates to end-rounded toothbrush bristles. 5. Describe the purposes, indications and contraindications for various toothbrushing techniques. 6. Explain the effects of improper toothbrushing techniques on the oral cavity. 7. Explain the importance of utilizing dental floss. 8. Differentiate among the various types of dental floss. 9. Verbalize and demonstrate the proper technique for utilizing dental floss.
<p>16. Understand dental stains.</p>	<ol style="list-style-type: none"> 1. Compare and contrast supragingival and subgingival calculus according to location, color, texture and distribution. 2. Describe the methods of calculus prevention and removal. 3. Describe the composition and structure of dental calculus. 4. Identify the various crystalline structures of calculus. 5. Describe the 3 modes of attachment of calculus to the tooth surface. 6. Explain the theories of calculus formation. 7. Explain in detail the role of calculus in the initiation and progression of dental disease.

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<p>17. Understand the concept of dental caries.</p>	<p>8. Identify calculus utilizing the explorer, compressed air and disclosing solution.</p> <ol style="list-style-type: none"> 1. Differentiate among: extrinsic stain, intrinsic stain, exogenous stain, and endogenous stain. 2. List the 3 means of adherence of stain to the tooth surface. 3. Describe the proper methods of stain removal. 4. Differentiate among the stains discussed in class according to the following criteria: appearance, distribution, composition, etiology, and occurrence.
<p>18. Understand and apply the principles of instrumentation.</p>	<ol style="list-style-type: none"> 1. Define dental caries. 2. Discuss why dental caries is considered a multifactorial disease. 3. Explain the role of the tooth, microorganisms, and diet in dental caries. 4. Describe the role of dextrans and levans in dental caries. 5. Explain the reaction occurring within dental plaque when a fermentable carbohydrate is introduced. 6. Discuss the Miller's Theory/Acidogenic theory of caries formation. 7. Discuss the Proteolytic Theory of caries formation. 8. Differentiate among the 4 types of carious lesion in man, their progression through the tooth structures and why bacteria are found in each type. 9. Properly detect dental caries clinically utilizing visual inspection, exploratory inspection and radiographs.

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<p>accurately chart a patient's dentition.</p> <p>21. Understand the importance of fluoride to the maintenance of oral health.</p>	<p>inflammation in the initial lesion, early lesion and established lesion of gingivitis.</p> <p>8. Discuss the histologic and clinical changes occurring in the development of a periodontal pocket.</p> <p>9. Discuss methods of prevention and maintenance of gingivitis and peroidontitis.</p> <p>1. Differentiate among primary, secondary, rampant, recurrent and incipient carious lesion.</p> <p>2. Describe the location and clinical features of each caries classification in G. V. Black's Classification of Caries.</p> <p>3. Draw various symbols utilized for dental charting.</p> <p>4. Utilize G. V. Black's Classification for identifying carious lesion and restorative conditions.</p> <p>5. Properly chart a patient's dentition utilizing the STCC charting code.</p> <p>6. Record pertinent anomalies and/or pathology appropriately on the patient's dental record.</p> <p>7. Detect all carious lesion utilizing visual, exploratory and radiographic means.</p> <p>1. Define fluoride and fluoridation.</p> <p>2. Explain the 2 major forms in which fluoride is made available to the teeth, giving an example of each.</p> <p>3. List 3 factors that determine the effectiveness of fluoride in prevention of dental caries.</p> <p>4. Discuss the effects of fluoride on plaque and bacterial</p>

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<p>22. Apply principles and skills to properly apply fluoride to the dentition.</p>	<p>metabolism.</p> <ol style="list-style-type: none"> 5. Discuss the effects of fluoride on tooth surface remineralization. 6. Describe the mechanisms of action of fluoride in its various forms. 7. Describe the effect fluoride has on the developing tooth in the following stages: pre-eruptive, mineralization stage; pre-eruptive, calcification stage; post-eruptive stage. 8. Discuss the importance of fluoride supplements to the various age groups. 9. List the recommended fluoride supplement dosage for systemic fluoride. 10. Discuss the importance of monitoring the amount the exogenous and endogenous fluoride a child receives. 11. List the available forms of supplemental fluorides. 12. Compare topical fluoride agents utilized for professional application according to: concentration, fluoride ion %, Mg. F/ml, application frequency, taste, tooth discoloration, gingival reaction.
<p>23. Apply the principles and skills to polish the dentition.</p>	<ol style="list-style-type: none"> 1. Given a patient with deposit-free dentition, properly select the appropriate topical fluoride. 2. Properly educates the patient to the benefits of the fluoride treatment. 3. Gathers proper armamentarium for fluoride treatment. 4. Properly fits trays to patient's oral cavity. 5. Properly fills trays with fluoride.

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<p>24. Apply the principles and skills to properly sharpen dental instruments.</p> <p>25. Understand and value the importance of guiding and motivating patients to obtain optimal oral hygiene.</p>	<ol style="list-style-type: none"> 6. Properly place trays for allotted time. 7. Instructs patient and/or parent in post-op directions. 1. Explain factors affecting the rate of abrasion of tooth structure by abrasive agents. 2. Differentiate between cleansing and polishing agents. 3. verbalize the indications and contraindications for selective polishing procedures. 4. Utilizing proper technique, demonstrate the use of the dental handpiece to polish the dentition. 5. Justify the selection of polishing agents. 1. Summarize the advantages of utilizing sharp instruments. 2. Explain the basic objective of sharpening instruments. 3. Sharpen instruments utilizing the technique demonstrated while maintaining proper instrument design. 4. Discuss the importance of maintaining original instrument design. 1. Discuss the principles of learning. 2. Explain the importance of planned patient learning. 3. List and discuss 6 steps for learner awareness to habit formation. 4. Discuss the importance of individualizing patient education. 5. Compare and contrast the effectiveness of non-directive vs. Directive counseling techniques.

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	<ol style="list-style-type: none">6. Discuss the important of discovering individual motivating factors for optimal patient involvement.7. Describe the importance of teaching aids and visuals in patient education.