

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

**ACADEMIC AFFAIRS**

Course Number: DHYG 202, DHYG 202 L Department: Dental Hygiene

Course Title: Clinical Practice 2 Semester: Spring Year: 1997

**Objectives/Competencies**

<b>Course Objective</b>	<b>Competencies</b>
<p>1. Correlating information gleaned from the lectures, guest speakers, reading assignments, audiovisual presentation, laboratory and clinical activities, the student will be able to:</p> <ul style="list-style-type: none"><li>a. Describe the rationale for charting gingival topography, clinical probing depths, bleeding, and calculus for the dental hygiene patient.</li><li>b. Recognize the need to select appropriate oral physiotherapy aids for specific oral conditions according to patient needs.</li><li>c. Describe the purpose of complete and thorough care of any fixed and/or removable dental appliance.</li><li>d. Describe the rationale, use and efficacy of ultrasonic scaling, sonic scaling and air polishing instrumentation.</li><li>e. Detect caries and periapical pathologies on intraoral radiographs.</li><li>f. Differentiate among the various types of dentifrices and be able to recommend agents to patients with specific</li></ul>	<p>1. Gingival Topography, Probing, Pockets, Bleeding and Calculus Charting.</p> <ul style="list-style-type: none"><li>a. State the rationale for performing a clinical examination of the periodontium.</li><li>b. Describe the appearance of normal gingiva according to color, shape, consistency, contour, texture, and bleeding state.</li><li>c. State the rationale for charting the height of the free gingival margin as it correlates to the teeth.</li><li>d. Define visible recession and describe how it is charted on the patient's chart.</li><li>e. State the rationale for probing and charting the sulci/pockets.</li><li>f. Differentiate between a sulcus and a pocket.</li><li>g. Define the proper techniques for evaluating the gingival condition.</li><li>h. Describe the difference between a pseudo (false) pocket and an absolute (true) pocket.</li></ul>

Course Objective	Competencies
<p>oral health care needs.</p> <ul style="list-style-type: none"> <li>g. Value, discuss and employ the various communication techniques as learned in the readings and in the class discussion.</li> <li>h. Value the rationale for self applied fluoride supplements and describe the efficacy of each.</li> <li>i. Recognize the special attention required for the diabetic patient and be able to treat the diabetic patient according to his specific health needs.</li> <li>j. Recognize the variations in treatment of the patient with cardiovascular disease prior to, during, and following a dental hygiene appointment.</li> <li>k. Value and recognize the protocol for treatment of a patient with hypertension in the dental office.</li> <li>l. Recognize dental health care needs of the developmentally disabled patient and be able to tailor dental hygiene treatment for each patient.</li> <li>m. Manage the dental appointment for a geriatric patient, taking into consideration the age and health of each patient.</li> </ul>	<ul style="list-style-type: none"> <li>i. Describe the correct way to adapt, insert, and read a probe.</li> <li>j. Describe the circumferential probing technique and discuss the reasons why it is preferred.</li> <li>k. Describe the rationale for the two point contact of probe to tooth during the procedure.</li> <li>l. Explain the necessity of correlating the shape and depth of the gingival pocket with the contour of the gingival margin.</li> <li>m. Describe the methods for charting the millimeters of recession.</li> <li>n. Correlate those clinical signs evident in probing and charting the gingival margin to either the presence of or the potential for periodontal disease.</li> <li>o. Describe the methods used and significance of charting bleeding areas.</li> <li>p. Describe the methods used and significance of charting calculus areas.</li> </ul> <p>2. Auxiliary Plaque Control Measures.</p> <ul style="list-style-type: none"> <li>a. State the rationale for recommending supplementary oral hygiene adjuncts to a patient's regimen for disorganization of plaque and removal of soft debris.</li> <li>b. Discuss the guidelines for prescribing oral physiotherapy devices for particular oral conditions and patients' needs.</li> <li>c. Describe and discuss the indication and</li> </ul>

Course Objective	Competencies
	<p>contraindications for use of the following devices:</p> <ul style="list-style-type: none"> <li>- Disclosing solution and tablets</li> <li>- Floss, Super Floss, and floss holders</li> <li>- Floss threaders</li> <li>- Interdental stimulators (rubber tips)</li> <li>- Balsa wood wedges (Stimulants)</li> <li>- Periodontal aids (Toothpicks)</li> <li>- Automatic Toothbrushes</li> <li>- Oral irrigating devices</li> <li>- Interproximal brushes</li> <li>- Gauze strips, yarn, and pipe cleaners</li> <li>- Mouth rinses</li> </ul> <p>d. Describe the techniques employed for each of the above listed devices.</p> <p>e. State the rationale for using a mouth wash prior to and following each oral prophylaxis.</p> <p>3. Care of the Dental Hygiene</p> <ul style="list-style-type: none"> <li>a. State the rationale for teaching home care techniques to all patients with dental appliances.</li> <li>b. State the rationale for professionally cleaning fixed dental appliances, orthodontic appliances, and removable dental appliances.</li> <li>c. Describe the rationale for recommending daily or nightly removal of removable dental appliances.</li> <li>d. Describe the function of each of the following appliances: fixed bridge, Maryland bridge, full</li> </ul>

Course Objective	Competencies
	<p>denture, partial denture, overdenture, orthodontic appliances, a night guard, and a hawley retainer.</p> <ul style="list-style-type: none"> <li>e. State the recommended methods for professionally cleaning each of above listed appliances.</li> <li>f. Describe the recommended procedures for patient care and cleaning of each of the above listed appliances.</li> <li>g. List the ingredients for the solution used to soak a partial denture with metal components.</li> <li>h. List the ingredients for the solution used for soaking a full denture.</li> <li>i. List the purpose of each of the following types of cleaners: oxidizing, dilute acids, enzyme. Be able to give examples of each.</li> </ul> <p>4. Airbrasive Polishing</p> <ul style="list-style-type: none"> <li>a. Recognize the clinical conditions appropriate for the use of an air polishing device.</li> <li>b. Identify those types of stains/patients that warrant the use of the air polishing system.</li> <li>c. Identify those risk patients for which airbrasives are contraindicated.</li> <li>d. Describe the mode of action of the air polishing system.</li> <li>e. Describe the technique used with the airbrasive polishing unit.</li> <li>f. Identify clinical conditions that contraindicate the use of airbrasives.</li> </ul>

Course Objective	Competencies
	<p>5. Ultrasonic Scaling</p> <ul style="list-style-type: none"> <li>a. Given information about the oral conditions and general health status of selected patients, identify those patients for whom ultrasonic scaling is or is not an appropriate choice.</li> <li>b. Describe the advantages and disadvantages of ultrasonic scaling.</li> <li>c. Describe how the ultrasonic scaler removes deposits.</li> <li>d. Identify precautions that must be taken to minimize cross-contamination during ultrasonic scaling.</li> <li>e. Given a patient for whom ultrasonic scaling is indicated, describe the ultrasonic procedure in a way that would ensure patient confidence, informed consent, and provide sufficient information in order to enable the patient whether or not to proceed.</li> <li>f. Identify four important measures for helping the patient cope with water flow.</li> <li>g. Given an ultrasonic unit, prepare it for operation by connecting it to an electrical outlet, arranging the foot control, connecting the water supply, and bleeding the handpiece.</li> <li>h. Describe the procedure for preparing an instrument for use in an ultrasonic unit.</li> <li>i. Identify the design and purpose of each of the following tips: Chisel, beaver-tail, universal curette, and periodontal probe.</li> </ul>

Course Objective	Competencies
	<ul style="list-style-type: none"> <li>j. Describe the best sequence and stroking pattern to produce a smooth tooth surface with an ultrasonic scaler.</li> <li>k. Describe the length and speed of the stroke used with an ultrasonic scaler.</li> <li>l. Contrast ultrasonic instrumentation principles with those employed with hand instruments.</li> <li>m. List three functions of the water lavage in ultrasonic scaling.</li> <li>n. Describe the procedure for adjusting the temperature of the water lavage.</li> <li>o. Briefly describe research findings related to effectiveness, tissue response, tooth structure smoothness, and safety precautions when ultrasonic instruments are used.</li> </ul> <p>6. Caries Recognition in Radiographs</p> <ul style="list-style-type: none"> <li>a. State the most accurate radiologic techniques for detecting caries in radiographs.</li> <li>b. Recognize the following types of caries on radiographs: interproximal, occlusal, buccal-lingual, root, and recurrent.</li> <li>c. Define and differentiate among incipient, early, frank, and deep caries both in written assignments and while interpreting radiographs in a clinical situation.</li> <li>d. Recognize pulpal pathology in radiographs.</li> </ul>

Course Objective	Competencies
	<p>7. Dentrifices</p> <ol style="list-style-type: none"> <li>a. State the purposes of using a dentrifice.</li> <li>b. List and describe the action of each major component in a dentrifice.</li> <li>c. List the three physical forms of a dentrifice.</li> <li>d. Describe the system whereby the ADA's Council on Dental Therapeutics evaluates and approves dentrifice agents.</li> <li>e. List those sodium monofluorophosphate fluoride, sodium fluoride, and stannous fluoride dentrifices which hold the seal of acceptance from the DA Council on Dental Therapeutics.</li> </ol> <p>8. Communications</p> <ol style="list-style-type: none"> <li>a. Describe briefly at least three motives for choosing a career as a health care provider that may influence the degree to which the patient is viewed as a partner in care.</li> <li>b. Identify language patterns that may indicate to the patient the role he/she has in treatment.</li> <li>c. Given case descriptions of two views of proposed treatment (the patient's and the hygienist's), identify discrepancies in wants, needs, and expectations.</li> <li>d. Explain the probable impact of discrepancies in wants, needs, and expectations on the success of treatment.</li> <li>e. Given case presentations, identify ways in which the</li> </ol>

Course Objective	Competencies
	<p>dental hygienist can gather information regarding the patient's perspectives (wants, needs, and expectations).</p> <ul style="list-style-type: none"> <li>f. Describe the helping relationship.</li> <li>g. Differentiate between the helping relationship and a dependency relationship.</li> <li>h. Differentiate between professional closeness and excessive familiarity.</li> <li>i. Identify ways to blend responsiveness to patients' needs with professional responsibility to provide the "best" care.</li> <li>j. Explain preliminary plans for assessment phases of care to a series of hypothetical patients who have a variety of wants, needs, and expectations regarding dental hygiene care.</li> </ul> <p>9. Self Applied Fluorides</p> <ul style="list-style-type: none"> <li>a. Describe how fluoride inhibits dental caries, including the following factors:               <ul style="list-style-type: none"> <li>- the formation of fluorapatite</li> <li>- its effect on microorganisms and plaque</li> <li>- its function in the outermost layer of enamel</li> <li>- its role in calcium and phosphorus remineralization.</li> </ul> </li> <li>b. Distinguish between the benefits of systemic and topical fluoride in preventing caries.</li> <li>c. Specify the optimal level of fluoride in communal water supplies.</li> <li>d. Describe dental fluorosis and how it is caused.</li> </ul>

Course Objective	Competencies
	<ul style="list-style-type: none"> <li>e. Describe the recommended doses and percentages for sodium fluoride, stannous fluoride and acidulated phosphate fluoride.</li> <li>f. State which fluorides are bacteristatic and which are bactericidal.</li> <li>g. Describe the recommended regimen for fluoride rinses containing 0.025%, 0.055, and 0.2% neutral sodium fluoride.</li> <li>h. State the age below which one does not prescribe fluoride rinses.</li> <li>i. Describe the regimen for sodium fluoride tablets.</li> <li>j. Outline and follow procedures designed to minimize toxic reactions to fluoride during the following:               <ul style="list-style-type: none"> <li>- Daily use of fluoride supplements.</li> <li>- In-office topical fluoride treatments.</li> </ul> </li> <li>k. Outline the current controversies and trends relating to the following.               <ul style="list-style-type: none"> <li>- Using high concentration topical fluorides.</li> <li>- Excessive exposure to fluorides from dietary and professional sources.</li> <li>- Polishing teeth before topical fluoride application.</li> <li>- Using frequent, low-dose fluorides.</li> <li>- Using higher-concentration fluorides in dentrifices.</li> <li>- Water fluoridation.</li> </ul> </li> <li>l. Outline a fluoride therapy program for caries-prone patients.</li> </ul>

Course Objective	Competencies
	<p>10.The Diabetic Patient</p> <ol style="list-style-type: none"> <li>a. Define Diabetes I and Diabetes II.</li> <li>b. Describe normal and high blood sugar levels.</li> <li>c. List the symptoms of Type I and Type II Diabetes respectively.</li> <li>d. Describe the receptor defect and the post receptor defect found in Type II diabetes.</li> <li>e. List the possible tests given in the diagnosis of diabetes.</li> <li>f. List the possible causes of diabetes.</li> <li>g. Describe the treatment of Type I and Type II diabetes, respectively.</li> <li>h. Differentiate among these three different types of insulin: Short Acting, intermediate acting, and long acting.</li> <li>i. Describe the appointment procedures for a diabetic patient, taking into consideration medication, relationship between meals and consultation with the patient’s physician.</li> <li>j. List those questions that are essential to ask a diabetic patient prior to any dental procedure.</li> <li>k. List the oral signs of diabetes which would aid in the diagnosis.</li> </ol> <p>11.The Cardiovascular Patient</p> <ol style="list-style-type: none"> <li>a. Value and recognize the symptoms of the various types</li> </ol>

Course Objective	Competencies
	<p>of heart diseases possibly found in dental patients.</p> <ul style="list-style-type: none"> <li>b. Identify the classification of diseases by either an anatomic or etiologic basis.</li> <li>c. Define infective endocarditis.</li> <li>d. Describe the etiology, pathophysiology and complications of infective endocarditis.</li> <li>e. Describe the degree of risk for infective endocarditis of the various types of cardiovascular patients.</li> <li>f. Describe the clinical signs and symptoms of infective endocarditis.</li> <li>g. Describe the dental hygienist’s role in preventing endocarditis from occurring in susceptible dental patients.</li> <li>h. Write the standard regimen of prophylactic antibiotic therapy as recommended for Bacterial Endocarditis Prevention in Patients at Low to Moderate Risk.</li> <li>i. Define and describe rheumatic fever, rheumatic heart disease, and functional and organic heart murmurs.</li> <li>j. Describe the etiology, incidence, and pathophysiology of rheumatic fever and rheumatic heart disease.</li> <li>k. Discuss the methods used to detect patients with rheumatic heart disease.</li> <li>l. Discuss the dental management of patients with rheumatic heart disease.</li> <li>m. Describe the heart murmurs which do and don’t require antibiotic prophylactics prior to an oral prophylactics.</li> <li>n. Describe the recommended protocol whenever a</li> </ul>

Course Objective	Competencies
	<p>patient reports a history of a heart murmur.</p> <ul style="list-style-type: none"> <li>o. Describe the three major types of congenital heart malformation.</li> <li>p. Discuss the dental management of the asymptomatic patient with congenital heart disease.</li> <li>q. State the recommended antibiotic prophylaxis for patients with a history of congenital heart disease.</li> <li>r. Discuss the dental management of patients with a history of the following surgical cardiac corrective procedures: arterial grafts, prosthetic valve replacements, surgically closed septal defect, ligated or resected ductus arteriosus, commissurotomy for disease cardiac valve, coronary artery bypass graft, arterial graft, implantation of a pacemaker and heart transplants.</li> </ul> <p>12.The Hypertensive Patient</p> <ul style="list-style-type: none"> <li>a. Define hypertension.</li> <li>b. Describe the symptoms and means of diagnosing hypertension.</li> <li>c. Discuss the rationale behind terming hypertension, “the silent disease.”</li> <li>d. Describe the guidelines for referring patients with high blood pressure to their physicians prior to any dental treatment, taking into consideration the age of blood pressure of the patient.</li> <li>e. Describe the dental hygienist’s role in the education of</li> </ul>

Course Objective	Competencies
	<p>the patient with regard to hypertension.</p> <ul style="list-style-type: none"> <li>f. Discuss the management of hypertension including the non-pharmacological and the pharmacological measures.</li> <li>g. Describe the reactions caused by the various types of antihypertensive drugs and precautions that should be taken during a dental appointment.</li> </ul> <p>13. Care and Management of Patients with Disabilities</p> <ul style="list-style-type: none"> <li>a. Define developmentally disabled according to the Developmental Disabilities Assistance and Bill of Rights Act of 1978.</li> <li>b. Describe the objectives of a dental hygienist in treating developmentally disturbed patients.</li> <li>c. Describe the complications a dental hygienist might encounter when treating patients with one of the following conditions:             <ul style="list-style-type: none"> <li>- Mental retardation</li> <li>- Seizure disorders</li> <li>- Sensory impairments; visual, speech, hearing</li> <li>- Learning disabilities: perceptual handicaps, hyperkinesia, dyslexia</li> <li>- Surgical disfigurement</li> <li>- Congenital defects: cleft lip and/or palate</li> <li>- Paralysis: spastic and athetoid paralysis (Cerebral Palsy) Paraplegia, hemiplegia, quadriplegia</li> <li>- Respiratory disorders</li> </ul> </li> </ul>

<b>Course Objective</b>	<b>Competencies</b>
	<ul style="list-style-type: none"> <li>- Neuromotor/locomotor disabilities: muscular dystrophy, joint symptoms, bone deformities</li> <li>- Chronic disease limitation: cardiovascular, blood diseases, diabetes, and malignancies.</li> </ul> <ol style="list-style-type: none"> <li>d. Discuss the need to review medical forms and consult with physicians and other specialists prior to performing dental hygiene procedures on a disabled patient.</li> <li>e. Describe the need for special requirements in the appointment scheduling of diabetic patients, arthritic patients, children, spinal cord injury, and colostomy patients.</li> <li>f. Discuss the physical requirements for a facility to consider when designing operatories and offices that can accommodate wheelchairs.</li> <li>g. Describe the self-care aids that would facilitate oral hygiene for a patient with limited manual dexterity.</li> <li>h. Differentiate between idiopathic epilepsy, and symptomatic or acquired epilepsy.</li> <li>i. Describe the aura that may precede a generalized tonic-clonic (Grand Mal) seizure.</li> <li>j. Describe the recommended emergency procedure to assist a patient having a convulsive seizure.</li> <li>k. Describe the gingival changes associated with phenytoin.</li> <li>l. Define mental retardation.</li> <li>m. Describe the physical characteristics and mental</li> </ol>

Course Objective	Competencies												
	<p>impairments associated with Down’s Syndrome.</p> <p>14.The Patient with a Physical or Sensory Handicap</p> <ol style="list-style-type: none"> <li>a. Differentiate among the five (5) types of paralysis: paresis, quadriplegia, paraplegia, hemiplegia, and triplegia.</li> <li>b. Describe the possible cause of a Spinal Cord Dysfunction.</li> <li>c. Describe each of the following physical/sensory handicaps listed below and discuss the possible alterations in treatment that would be indicated during an appointment for an oral prophylaxis.               <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Spina Bifida (Myelomenigocele)</td> <td style="width: 50%;">Bell’s Palsy</td> </tr> <tr> <td>Cerebrovascular Accident (Stroke)</td> <td>Parkinson’s Dis.</td> </tr> <tr> <td>Muscular Dystrophy</td> <td>Arthritis</td> </tr> <tr> <td>Myasthenia Gravis</td> <td>Sclerodema</td> </tr> <tr> <td>Multiple Sclerosis</td> <td>Blindness</td> </tr> <tr> <td>Cerebral Palsy</td> <td></td> </tr> </table> </li> </ol> <p>15. The Geriatric Patient and Radiation Therapy Patients</p> <ol style="list-style-type: none"> <li>a. Define the terms aging, gerontology, and geriatrics.</li> <li>b. Describe general physiologic changes that are related to the aging process.</li> <li>c. Identify and describe the diseases that are associated with the elderly, such as cardiovascular disease, osteoporosis, and Alzheimer’s Disease.</li> <li>d. Describe those changes to the facial structure,</li> </ol>	Spina Bifida (Myelomenigocele)	Bell’s Palsy	Cerebrovascular Accident (Stroke)	Parkinson’s Dis.	Muscular Dystrophy	Arthritis	Myasthenia Gravis	Sclerodema	Multiple Sclerosis	Blindness	Cerebral Palsy	
Spina Bifida (Myelomenigocele)	Bell’s Palsy												
Cerebrovascular Accident (Stroke)	Parkinson’s Dis.												
Muscular Dystrophy	Arthritis												
Myasthenia Gravis	Sclerodema												
Multiple Sclerosis	Blindness												
Cerebral Palsy													

<b>Course Objective</b>	<b>Competencies</b>
	<p>salivary glands, lips oral mucosa, tongue, bones, teeth and gingiva that are characteristic of the elderly.</p> <ul style="list-style-type: none"><li>e. Discuss the needs of the geriatric patient when referring to appointment scheduling.</li><li>f. Discuss the nutritional needs of the elderly dental patient.</li></ul> <p>*These objectives are copied from Woodall, <u>Comprehensive Dental Hygiene</u></p>