

# COURSE SYLLABUS



Education That Works For a Lifetime

<b>Course Title:</b>	Special Topics: Pain Control and Local Anesthesia for the Dental Hygienist	<b>Date of last update:</b> (If this syllabus is being changed as part of a course change or new course proposal, enter the date of the proposal)	<b>October 2005 (05-49)</b>																		
<b>Department:</b>	Allied Health																				
<b>Curriculum:</b>	Dental Hygiene																				
<b>Course Descriptors:</b> (Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.)	<p><b>Course Code:</b> (eg. ACC 101) <input type="text"/></p> <p><b>Course Type:</b> <input type="text" value="D/X"/></p> <p>L: Lecture B: Lab X: Combined Lecture/Lab                  U: Studio N: Internship P: Practicum                  D: Distance Learning I: Individual / Independent</p> <table border="1"> <tr><td><b>Credit Hours:</b></td><td><b>3</b></td></tr> <tr><td><b>Developmental:</b> (yes/no)</td><td><b>No</b></td></tr> <tr><td>Lecture:</td><td><b>30</b></td></tr> <tr><td>Lab:</td><td><b>15</b></td></tr> <tr><td><b>Contact Hours:</b></td><td><b>45</b></td></tr> <tr><td>Clinical:</td><td><b>(6:1) ratio</b></td></tr> <tr><td><b>TOTAL:</b></td><td><b>45</b></td></tr> <tr><td><b>Class Maximum:</b></td><td><b>18</b></td></tr> <tr><td><b>Semesters Offered:</b></td><td><b>Su</b></td></tr> </table>	<b>Credit Hours:</b>	<b>3</b>	<b>Developmental:</b> (yes/no)	<b>No</b>	Lecture:	<b>30</b>	Lab:	<b>15</b>	<b>Contact Hours:</b>	<b>45</b>	Clinical:	<b>(6:1) ratio</b>	<b>TOTAL:</b>	<b>45</b>	<b>Class Maximum:</b>	<b>18</b>	<b>Semesters Offered:</b>	<b>Su</b>	<b>Prerequisites:</b> **Graduation from an ADA Accredited School of Dental Hygiene or Proof of graduation within 30 days and passing Dental Hygiene National Boards **Current certification in CPR for the Professional Rescuer/Health Care Provider and AED from the Red Cross or American Heart Association **Completion of home study prerequisites **Current license to practice dental hygiene and proof of malpractice insurance **Proof of Hepatitis B vaccination, TB antigen test within 1 year( PPD)	<b>Corequisites:</b> <input type="text"/>
<b>Credit Hours:</b>	<b>3</b>																				
<b>Developmental:</b> (yes/no)	<b>No</b>																				
Lecture:	<b>30</b>																				
Lab:	<b>15</b>																				
<b>Contact Hours:</b>	<b>45</b>																				
Clinical:	<b>(6:1) ratio</b>																				
<b>TOTAL:</b>	<b>45</b>																				
<b>Class Maximum:</b>	<b>18</b>																				
<b>Semesters Offered:</b>	<b>Su</b>																				
<b>Catalog Course Description:</b> (Check with the Public Information Office to assure consistent taxonomy, terminology and style.)	This course presents the basic science and dental science foundations of clinical local anesthesia, in preparation for Connecticut State Certification for administration of local anesthesia by dental hygienists. Students will learn to perform safe, effective and proper techniques of intraoral pain control utilizing local anesthetic administration on student –client partner. Emphasis is placed on client evaluation for predicting and preventing complications. Prerequisites: Graduation from an ADA Accredited School of Dental Hygiene or Proof of graduation within 30 days and passing Dental Hygiene National Boards; Current certification in CPR for the Professional Rescuer/Health Care Provider and AED from the Red Cross or American Heart Association; Completion of home study prerequisites; Current license to practice dental hygiene and proof of malpractice insurance; Proof of Hepatitis B vaccination, TB antigen test within 1 year( PPD).																				
<b>Course Objectives &amp; Their Evaluation:</b> (A broad, content-based statement about what the instructor will attempt to achieve in the course.)	Safely and effectively administer intraoral infiltration, block and topical anesthesia on a student client for the purpose of pain- free dental hygiene services as specified by the Connecticut State Statutes. The evaluation of these skills will be through instructor generated online exams and clinical competency assessments.																				
<b>Specific Outcomes:</b> (Measurable skills)	The student will be able to complete the following outcomes to at least <b>80% competency in both Didactic and Clinical</b> by the end of the course:																				

# Special Topics: Pain Control and Local Anesthesia for the Dental Hygienist

## COURSE SYLLABUS — page 2

<p>students will be expected to demonstrate or specific tasks the student should be able to perform, as evidence that the course content has been mastered.)</p>	<ol style="list-style-type: none"><li>1. Identify anatomical landmarks important to the safe and effective administration of intraoral local anesthetic.</li><li>2. Utilize the concepts of the physiology of pain to reduce or eliminate pain.</li><li>3. Identify the tissues innervated by each of the sensory nerves serving the oral cavity.</li><li>4. Describe the physiology of the peripheral nervous system and the effects of local anesthesia on neurotransmission.</li><li>5. Describe the pharmacology of local anesthetic and vasoconstrictor solutions and apply this knowledge to the clinical administration of local anesthetics.</li><li>6. Compare, describe and evaluate various agents used intraorally for local anesthesia.</li><li>7. Describe and evaluate various agents used in the management of dental pain during treatment.</li><li>8. Assemble, describe, evaluate, maintain and utilize the armamentaria for intraoral local anesthesia infiltration and block.</li><li>9. Maintain infection control and properly dispose of sharps.</li><li>10. Perform preoperative evaluation of a client for indications, contraindications, or modifications to the use of pain control in the administration of local dental anesthetics.</li><li>11. List potential complications associated with local anesthesia, steps to reduce such complications and management protocols for complications.</li><li>12. Describe the legal management of complications for local dental anesthesia.</li><li>13. List the steps in basic infiltration and mandibular block local anesthetic injection technique and describe the rationale for each.</li><li>14. Describe successful anesthetic techniques for maxillary and mandibular anesthesia including maxillary and mandibular infiltration, PSA, MSA, ASA, greater palatine, nasopalatine, inferior alveolar, long buccal, mental, and incisive nerve blocks.</li><li>15. Explain the mode of action, duration, indications, contraindications and protocol for the use of topical anesthetic.</li><li>16. Delineate post operative instructions and perform proper record keeping and risk management steps for local anesthesia.</li><li>17. List current laws, rules and regulations for the State of Connecticut and differentiate between other states dental statutes and regulations.</li><li>18. Clinically prepare for, explain, and perform the steps involved to achieve local anesthesia for maxillary and mandibular infiltration and mandibular block intraoral area on a student colleague.</li></ol>
<p><b>Topical Outline:</b></p>	<ol style="list-style-type: none"><li>1. Anatomical considerations for dental local anesthesia</li><li>2. Neuroanatomy</li><li>3. Physiology of pain</li><li>4. Neurophysiology</li><li>5. Pharmacology of pain control utilizing local anesthetics and vasoconstrictors</li><li>6. Pharmacological agents used for local anesthesia</li><li>7. Armamentarium for local injections</li><li>8. Infection Control and proper disposal of needles</li><li>9. Prevention, recognition and management of complications of local anesthetics in the dental setting</li><li>10. Client evaluation for administration of anesthetics</li><li>11. Legal management of complications</li><li>12. Basic injection techniques for mandibular block</li><li>13. Basic injection techniques for infiltration anesthesia</li><li>14. Current topical anesthesia techniques</li><li>15. Post operative instructions, record keeping and risk management</li><li>16. Connecticut State laws, rules and regulation of local dental anesthesia for the dental hygienist</li><li>17. Ethical considerations for administration of local anesthesia</li><li>18. Clinical student client experience in mandibular block and maxillary/ mandibular infiltration injections</li></ol>
<p><b>Suggested Instructional Materials</b></p>	<p>Handbook/DVD of Local Anesthesia, Stanley F. Malamed, 4<sup>th</sup> (or latest) edition Mosby 1999. ISBN # 0-8151-6423-8. Online (VISTA) capabilities for didactic portion of the curriculum.</p>

# Special Topics: Pain Control and Local Anesthesia for the Dental Hygienist

## COURSE SYLLABUS — page 3

**Resources,  
Equipment, & Special  
Facilities Required:**

dental clinic units UHC contract  
syringes, needles, carpules, hemostats, recapping device UHC contract  
6:1 ratio for clinical setting