

Salt Lake Community College



Dental Hygiene
Program

DH 2341

Local Anesthesia
Lab

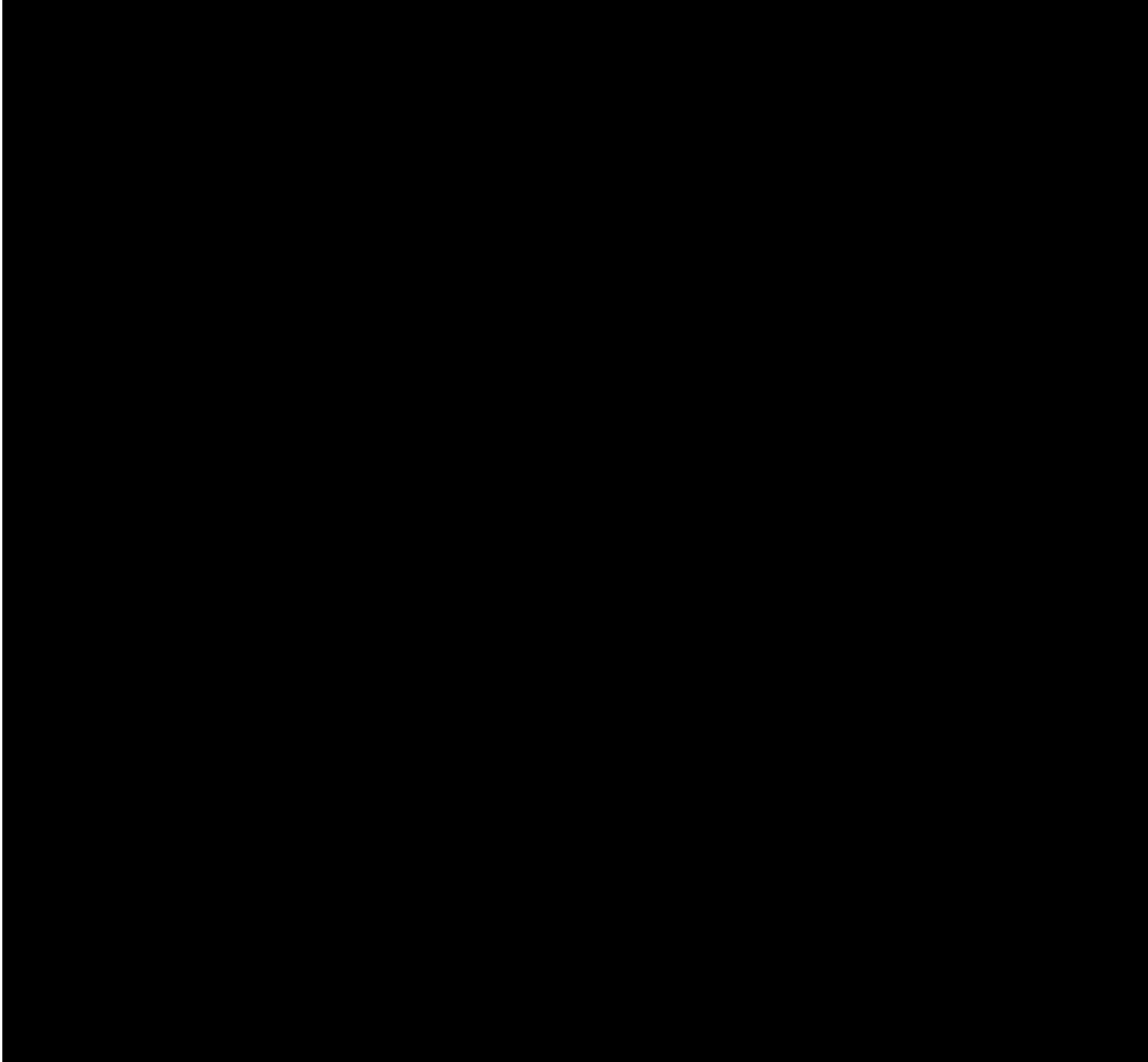
Fall Semester
2022

Instructor:

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SLCC DEPARTMENT: Dental Hygiene



COURSE DESCRIPTION: Demonstration and administration of all local and regional blocks are experienced in a supervised lab setting. Minimum competence is verified through successful completion of proficiency evaluations.

Prerequisite: DH1540 Corequisite: DH2340.

A requirement of your educational experience as a dental hygienist, particularly when first learning clinical skills, is to sit as a patient for your fellow classmates. These learning experiences are designed to assist in the development of psychomotor skills and an appreciation of a patient's role in evaluation and treatment. It is each student's responsibility to participate in order to foster both individual and peer learning of local anesthesia injections. It is required that you be a willing and cooperative "patient" during these injections so that the educational process for both yourself and your partner is facilitated. In the event a student is unable to participate in local anesthesia lab for a documented medical reason, the student will be responsible for providing their own patient each week who has been approved by the clinical coordinator.

- ***Due to the uncertainties of Covid-19, course delivery (such as moving to Online) is subject to change at any point during the semester if recommended or mandated by State/National Government Officials.***

MY INCLUSIVITY STATEMENT: My intent for this class is to create a space where students feel included, heard, and respected, and that students' diverse identities and backgrounds are valued and viewed as an asset to our shared learning community. We all come to this course with unique life experiences, and there will be diversity of perspectives in our discussions. This diversity is our strength as we strive to communicate and connect across differences and build an inclusive and equitable learning environment. If you have a conflict with a class or assignment and a religious/cultural/spiritual event, please notify me beforehand and we will make arrangements.

COURSE LEARNING OUTCOMES:

- 1) Under direct supervision of Registered Dental Hygienist (RDH) or Doctor of Dental Science (DDS/DMD) demonstrate administration of the following injections to clinical competency at least 3 times:
 - a. Posterior Superior Alveolar Injection (PSA)
 - b. Middle Superior Alveolar Injection (MSA)
 - c. Anterior Superior Alveolar Injection (ASA)
 - d. Greater Palatine Injection (GP)
 - e. Nasopalatine Injection (NP)
 - f. Inferior Alveolar Nerve Injection (IAN) including Lingual (L)
 - g. Long Buccal Injection (LB)
 - h. Mental/Incisive Injection (Mental /Incisive)
 - i. Intraseptal
- 2) Under direct supervision administer nitrous inhalation sedation in a clinically competent manner to a minimum of three times in a clinical setting, in a safe and effective manner clinical competency.
- 3) Evaluate whether local anesthesia is appropriate using medical histories and physical exam and choose the appropriate topical and injectable anesthetic, evaluating drug interactions, health status, and physical status learned in didactic course to determine what is best for the patient.
- 4) Student will perform all injections with appropriate asepsis technique being prepared to handle situations arising in a professional manner like dropping needle cap, harpoon not engaged, harpoon sticking to plunger, positive aspiration, premature osseous contact etc.

- 5) Student will be able to perform all injections using board verbiage, knowing proper technique according to competency, be able to describe landmarks, point of penetration, optimum depth and angle, dose, possible complications and contraindications and alternatives to each injection.
- 6) Student will handle patient's anxiety and fear by explaining the procedure, and talking the procedure through in a calm and assuring manner.

SLCC STUDENT LEARNING OUTCOMES

SLCC is committed to fostering and assessing the following College-wide student learning outcomes in its programs and courses:

1. Communicate effectively
2. Develop quantitative literacies necessary for their chosen field of study
3. Think critically & creatively
4. Develop civic literacy and the capacity to be community-engaged learners who act in mutually beneficial ways with community partners
5. Develop knowledge and skills to work with others in a professional & constructive manner
6. Develop computer & informational literacy
7. Develop the attitudes and skills for lifelong wellness

Dental Hygiene Competencies That Have a Major Focus In This Course

COMPETENCY		ASSESSMENT METHOD(S)
<p>I. Core Competencies (C) reflect the ethics, values, skills, and knowledge integral to the profession of dental hygiene. The entry-level dental hygienist must be capable of discerning and managing oral health therapy and ethical issues in a rapidly changing environment influenced by regulatory action, economics, social policy, health care reform, cultural diversity, scientific discovery and emerging technologies. Consequently, dental hygienists must be able to acquire and synthesize information in a systematic and critical manner. As oral health professionals, dental hygienists are required to respect and adhere to the state and federal laws, regulations and established standards that govern their practice.</p>		
C.1	<p>Apply a professional code of ethics in all endeavors.</p> <ol style="list-style-type: none"> a. Apply principles of ethical behavior in decision-making, in interactions with patients, staff, and peers, in personal conduct. b. Provide ethical dental hygiene care to promote patient health and wellness, and assume responsibility for dental hygiene interventions. 	<p>Successful completion of the course as a result of adherence to course standards/codes of conduct and completion of the course requirements.</p>
C.3	<p>Use critical thinking and comprehensive problem-solving to provide oral health care that promotes patient health and wellness in the provision of evidenced-based practice.</p>	<p>Learning Experiences Competency Experience</p>

C.5	Assume responsibility for professional actions and care based on accepted scientific theories, research, and the accepted standard of care.	Learning Experiences Competency Experience
C.10	Accurately document recommended, planned, and provided oral health services and maintain patient records as confidential, legal entities.	Learning Experiences (Patient notes)
II. Health Promotion and Disease Prevention (HP). The entry-level dental hygienist must be competent in the performance and delivery of oral health promotion and disease prevention services in private practice, public health and other alternative settings. Dental hygienists play an active role in the promotion of optimal oral health and its relationship to general health.		
ASSESSMENT METHOD(S)		
HP.5	Evaluate and implement methods to ensure the health and safety of the patient and the oral health professional in the delivery of care.	Learning Experiences Competency Experience

TEXTBOOKS AND RESOURCES

REQUIRED TEXTBOOK

Local Anesthesia for Dental Professionals. Bassett, DiMarco, Naughton. 2nd ed. Prentice Hall (Pearson). 2015.

RESOURCE TEXT BOOKS

Handbook of Local Anesthesia, Malamed, Stanley F., 6th ed. St. Louis, MO: Mosby, 2014.
Medical Emergencies in the Dental Office. Malamed, Stanley F., 7th edition. 2016.

COURSE REQUIREMENTS

Each student is responsible for reading the assigned material from the textbooks and PowerPoints and being prepared to perform the injections outlined.

EXAMS

Final Exam is performing the Inferior Alveolar Injection and Posterior Superior Alveolar Injection with the appropriate verbiage, technique and asepsis.

PREPARATION

This is a rigorous course. Students have found to be successful; read, study and take notes on assigned reading, review the day of class to clarify any new material learned that day, study the subject matter regularly (several times a week to put the material in long term memory), memorize MRD and pertinent information for dose calculations and injection material, point of penetration, landmarks, and technique etc. **Student must be prepared daily by studying the appropriate injections and being ready to perform them on their student partner.** Student must have armamentarium sterilized and ready to perform them daily.

ATTENDANCE AND PARTICIPATION

You are required to attend every class, but extenuating circumstances arise that can make this difficult. If you cannot attend a class, please text to let me know. As explained in the Dental

Hygiene Handbook, attendance is mandatory and expected. Only one unexcused absence is allowed. Please be on time, arriving 15 mins late constitutes an absence.

A requirement of your educational experience as a dental hygienist, particularly when first learning clinical skills, is to sit as a patient for your fellow classmates. These learning experiences are designed to assist in the development of psychomotor skills and an appreciation of a patient’s role in evaluation and treatment. It is each student’s responsibility to participate in all labs in order to foster both individual and peer learning of each injection. It is required that you be a willing and cooperative “patient” and “clinician” during these learning experiences so that the educational process for both yourself and your partner is facilitated.

LATE WORK

Due to the nature of this lab, late work will not be accepted. If a make-up lab needs to be arranged, it will need to be scheduled with the instructor. It is the responsibility of the student to arrange a student partner to participate. Final Exam injections must be taken on the assigned date.

GRADING SCALE AND POLICY

A = 95 – 100 %	B = 83 – 86 %	C = 75 – 77 %	D = 64 - 66%
A- = 94 – 90 %	B- = 80 – 82 %	C- = 71 - 74%	D- = NONE
B+ = 87 – 89 %	C+ = 78 - 79 %	D+ = 67- 70%	F = 63 & BELOW

This clinical course requires a *minimum grade of 75%* in order to pass. *Any* retake, redirection, or stoppage of a “pass off” injection will receive a one point deduction *except* the final exam with a five point deduction

GRADING

Injections: 70% of total grade

- MSA 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- ASA 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- PSA 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- NP 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- GP 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- Intraseptal 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- IA/L and LB 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- Mental Incisive 10 pt (1 point deduction for EACH retake, redirection, stoppage)
- Nitrous Oxide 10 pt (1 point deduction for EACH retake, redirection, stoppage)

90 Points

Final: 30% of total grade

- IA/L and LB 20 pt (5 point deduction for EACH retake, redirection, stoppage)

PSA

20 pt (5 point deduction for EACH retake, redirection, stoppage)

EXTRA CREDIT

No extra credit will be given.

STUDENT AFFAIRS CODE OF STUDENT RIGHTS AND RESPONSIBILITIES

Students are expected to follow all provisions of the Student Code of Conduct available here:

http://www.slcc.edu/policies/docs/Student_Code_of_Conduct.pdf

EMERGENCY EVACUATION PROCEDURE

When instructed to evacuate the building, always leave immediately. The Dental Hygiene Department will meet in front of the LDS Institute (northeast corner of the building) for a head count and further instructions. As a rule, it is recommended that you evacuate the building at a distance of one and a half times the size of the building to avoid harm.

Any question, please contact (801) 957-4963 www.slcc.edu/riskmanagement/docs/2011

PLAGIARISM

Students are expected to reference all sources of information. Any plagiarism will result in failure of the assignment and possible failure of the course. Information must not be copied from other students work, textbooks or internet sources.

ELECTRONIC/WIRELESS DEVICES IN CLASSROOM

The advent of technology use in the classroom as an instructional tool has caused both opportunities and distractions. The expectations for this course are that you are engaged and present during class time, which means that you will be free from technological distractions. Research has shown that these distractions cause individual inattentiveness and can make it difficult for others to stay focused on the immediate discussions. The following policies are in effect during our time together:

1. Cell phones, iPods, pagers, High-Resolution DVR Spy Pens with webcam and microphone or any device (excluding ADA authorized devices) that may distract from the class should be silenced before entering the classroom and may not be on the desk during class or exams. If you have an emergency and must use your cell phone, please exit the classroom to take the call. If you are discovered reading/sending text messages during class, you could be asked to leave the class and will be counted absent for that class session.
2. You are expected to engage in discussion for the class. You may use your computer to access your textbook, take notes, and research the discussion topic. However, some students may find it difficult to refrain from reading emails, surfing the web, and engaging in other activities not related to the class. Therefore, if you are discovered engaging in computer activities not directly related to the class, you will be asked to leave the class and will be counted absent for that class session.

3. You may not record or publish information from the class without written authorized use from the instructor. If used without authorization you have violated

PRIVACY/INTELLECTUAL PROPERTY RIGHTS.

PROFESSIONALISM:

Professionalism is expected and includes at a minimum the following capabilities and traits :

1. **Appearance:** Displays appropriate professional appearance and is appropriately groomed as defined in the SLCC Dress Code.
2. **Attitudes:** Is actively concerned about others. Maintains a positive outlook toward others and toward assigned tasks. Recognizes and admits mistakes. Seeks and accepts feedback to improve performance.
3. **Dependability:** Completes tasks promptly and well. Arrives on time and actively participates in clinical and didactic activities. Follows through and is reliable.
4. **Function under stress:** Maintains professional composure and exhibits good personal and clinical judgment in stressful situations. Recognizes the importance of maintaining professional behavior in the clinical setting, in spite of inappropriate action on the part of others.
5. **Initiative:** Independently identifies tasks to be performed and makes sure that tasks are completed satisfactorily. Performs duties promptly and efficiently. Is willing to spend additional time and to assume new responsibilities. Recognizes when help is required and when to ask for guidance.
6. **Integrity:** Displays honesty in all situations and interactions; is able to identify information that is confidential and maintain its confidentiality.
7. **Interpersonal relationships:** Provides support and is empathetic and considerate in interactions with peers, patients, faculty, and staff. Interacts effectively with "difficult individuals." Demonstrates respect for and complements the roles of other professionals. Is cooperative and earns respect.
8. **Tolerance:** Demonstrates ability to accept people and situations. Acknowledges his/her biases and does not allow them to affect patient care or contribute to inappropriate interactions with others.

For college wide student resources please see the Institutional Syllabus located in Canvas.

**DH 2340 LOCAL ANESTHESIA
INSTRUCTIONAL OBJECTIVES**

<p>Safety, Armamentarium & Site Preparation. LA Write-up</p>	<ol style="list-style-type: none"> 1. Demonstrate effective syringe assembly, . 2. Perform ONE-HANDED recapping of needle 3. Demonstrate careful and safe needle disassembly and proper sharps disposal. 4. Show positive aspiration and conclude how to handle being in a blood vessel 5. Control local anesthetic cartridge delivery over one minute and conclude why delivery rate is so critical to patient health 6. Position patient for local anesthetic delivery and deduce why positioning is pertinent to the administration of LA 7. Verbally communicate with the patient expectations during the injection process 8. Palpate landmarks for optimal site of injection and visualize this spot. 9. Prepare tissue for painless injection and judge how much topical is effective for tissue pain control. 10. Retract tissue with mouth mirror/Minnesota and gently enter tissue 11. Judge proper depth, angle of needle and amount of anesthesia given for individual injection based on patient's anatomy, health history, and nerve being anesthetized. 12. Construct local anesthetic record note
<p>Landmarks for M/I, ASA, & MSA Injections. LA Calculations & Importance</p>	<ol style="list-style-type: none"> 1. Perform all of Monday's objectives 2. Analyze factors limiting either local anesthesia or vasoconstrictor for patient safety 3. Compute amounts of LA or vasoconstrictor delivered to any given patient 4. Deduce amounts of LA that may be given when CHANGING LAs during patient treatment 5. Determine when and why the needle must be replaced during patient treatment 6. Perform M/I, ASA, and MSA
<p>Landmarks for PSA, GP, & NP Injections. Review Head and</p>	<ol style="list-style-type: none"> 1. Perform all of Monday & Tuesday's objectives

<p>Neck Anatomy for PSA. Hematoma Treatment. Troubleshooting PSA. Cardiac Dosing and Diseases Requiring Alteration to Anesthesia</p>	<ol style="list-style-type: none"> 2. Formulate an anesthetic prescription for patients with different medical conditions 3. Evaluate reasons a hematoma may develop during a PSA 4. Initiate treatment protocol for possible hematoma for the PSA 5. Name, palpate, and locate the three anatomical landmarks necessary for the PSA 6. Demonstrate the upward, inward, backward direction for the PSA in one movement 7. Perform PSA, NP, and GP 8. “Pass-off” M/I, GP, & NP
<p>Landmarks for IA & LB Injections. Review of Head and Neck Anatomy for IA & Adjusting Penetration Location Based on Individual Anatomy. Troubleshooting IA</p>	<ol style="list-style-type: none"> 1. Perform all objectives given over the week 2. Name, palpate, and locate the three anatomical landmarks needed to implement a successful IA 3. Analyze reasons an IA may not be successful and formulate a plan for generating profound anesthesia 4. Evaluate reasons a hematoma may develop during the administration of an IA 5. Initiate treatment protocol for possible hematoma for the IA 6. Perform IA & LB 7. “Pass-off” PSA, GP, & NP
<p>Signs and Symptoms of LA and Vasoconstrictor Overdose, Telling the Difference & Treatment. Advanced Local Anesthetic Techniques and Reasons for Use</p>	<ol style="list-style-type: none"> 1. Expertly model all local anesthesia safety protocols performed over the past week. 2. “Pass-off” IA & LB 3. PRACTICAL FINAL: IA & PSA of choice 4. Compare and contrast signs and symptoms of LA vs. vasoconstrictor overdose & treatment for each. 5. Anticipate alternative injection procedures per situational patient treatment and justify use

DH 2341 Local Anesthesia Lab Course Calendar

<i>DATE</i>	<i>LAB/INJECTION</i>
<p>8/25/22</p> <p>Week 1</p>	<p>INTRODUCTION: Syllabus, Lab Schedule, Anesthesia Lab Folder</p> <p>ACTIVITIES:</p> <ul style="list-style-type: none"> • Review parts of syringe • Demonstration: assembly of syringe (page 156 Bassett) • Insert needle into peach to seed (Demonstrate hitting bone) • Insert needle into banana (Demonstrate tissue in PSA) • Tearing down of syringe and deposing of needle properly and safely • Review Injection Verbiage
<p>9/1/22</p> <p>Week 2</p>	<p>ACTIVITIES:</p> <ul style="list-style-type: none"> • Individual instructors observe students loading the syringe. • Practice inserting needle into the Neutrogena soap (Observe how needle deflects using gauge 25, 27 and 30) • In a separate cup with red dye, practice aspirating • Deposit the full cartridge of anesthetic over 60 seconds (x2) • Dispose of the needle and cartridge properly & safely
<p>9/8/22</p> <p>Week 3</p>	<p>VIDEO: BASSETT: Infiltration, MSA</p> <p>ACTIVITIES:</p> <ul style="list-style-type: none"> • Note different fulcrums/stabilization in lab notebook • Demonstrate placing topical • Demonstrate fulcrum/stabilization for injection • Demonstrate MSA; talk about difference between MSA and infiltration • Student place topical • Student say verbiage & bilateral MSA • Student disassemble syringe and dispose of needle & carpule • Oraqix- demonstrate set up and tear down
<p>9/15/22</p> <p>Week 4</p>	<p>VIDEO: BASSETT: Review MSA & DVD for ASA</p> <p>ACTIVITIES:</p> <ul style="list-style-type: none"> • Instructor demonstrate ASA on a student • Student place topical (3) and repeat anesthetic verbiage • Student PASS OFF MSA • Student PERFORM BILATERAL ASA • Student practice placement of PSA with safety needle (if time allows) • Student disassemble syringe and dispose of needle & carp • Fill out PE and tracking sheet and have CI sign
<p>9/22/22</p> <p>Week 5</p>	<p>VIDEO: BASSETT: Review ASA & DVD of PSA</p> <p>LAB:</p> <ul style="list-style-type: none"> • Instructor demonstrate PSA • Student place topical (3) and repeat anesthetic verbiage • Student PASS OFF ASA

	<ul style="list-style-type: none"> • Student PERFORM BILATERAL PSA • Student disassemble syringe and dispose of needle & carp • Fill out PE and tracking sheet and have CI sign
<p>9/29/22</p> <p>Week 6</p>	<p>VIDEO: Bassett: Review PSA & DVD of Mental/Incisive</p> <p>LAB</p> <ul style="list-style-type: none"> • Individual instructors demonstrate the IA & LB • PASS OFF PSA • Students PERFORM MENTAL AND INCISIVE (one each side) and Intraseptal stating the difference between the two • Student disassemble syringe and dispose of needle & carp • Fill out PE and tracking sheet and have CI sign
<p>10/6/22</p> <p>Week 7</p>	<p>VIDEO: Bassett: Review M/I, Intraseptal & DVD of IA/LB</p> <p>LAB</p> <ul style="list-style-type: none"> • PASS OFF MENTAL/INCISIVE on one side • PASS OFF INTRASEPTAL same side as M/I • Student perform BILATERAL IA/LB • Student disassemble syringe and dispose of needle & carp • Fill out PE and tracking sheet and have CI sign
<p>10/13/22</p> <p>Week 8</p>	<p>VIDEO: Bassett: Review IA/LB & DVD of GP and NP</p> <p>LAB:</p> <ul style="list-style-type: none"> • PASS OFF IA/LB on one side • Perform BILATERAL GP & SINGLE NP. For GP, use Endo Ice on one side for 5 seconds ONLY; pressure anesthesia on opposite side • Student disassemble syringe and dispose of needle & carp • Fill out PE and tracking sheet and have CI sign
<p>10/20/22</p> <p>Week 9</p>	<p>FALL BREAK</p>
<p>10/27/22</p> <p>Week 10</p>	<p>LAB:</p> <ul style="list-style-type: none"> • Instructor demonstrate setup of nitrous oxide machine & review flow rates • Instructor review necessary patient information & instructions • Instructor demonstrate placing mask on patient for gas flow and comfort • Student set up nitrous machine and start nitrous flow to titration level per instructor • Student PASS OFF GP & NP, while patient on nitrous oxide • Place partner on 100% oxygen for 5 minutes • Student tear down and disinfect machine • Student disassemble syringe and dispose of needle & carp • Fill out PE for GP/NP and have CI sign tracking sheet for GP, NP, Nitrous
<p>11/3/22</p> <p>Week 11</p>	<p>LAB:</p> <ul style="list-style-type: none"> • Student set up nitrous machine and start nitrous flow to titration level per instructor • Perform PSA of choice • Place partner on 100% oxygen for 5 minutes • Student tear down and disinfect machine

	<ul style="list-style-type: none"> • Have instructor sign off tracking sheet for second nitrous and extra PSA
11/10/22 Week 12	LAB: <ul style="list-style-type: none"> • Student pass off NITROUS OXIDE • Student demonstrate to instructor placing nitrous on patient and giving patient instructions • Student demonstrate turning on nitrous and bringing patient to titration • Student perform IA of choice on patient • Student place patient on 100% oxygen for 3-5 minutes • Student tear down and disinfect machine • Have instructor sign PE and tracking sheet for 3rd nitrous and extra IA
11/17/22 Week 13	LAB: <ul style="list-style-type: none"> • Student perform CONTRALATERAL PSA and IPSILATERAL IA on patient • Have instructor sign tracking sheet for extra IA and PSA
11/24/22 Week 14	THANKSGIVING BREAK
12/1/22 Week 15	LAB: Starts at 9:00am <ul style="list-style-type: none"> • MOCK ANESTHESIA Final (NOT GRADED) but injections count towards CLINICAL requirements) • Have instructor sign tracking sheet for extra IA and PSA
12/8/22 Week 16	LAB: Starts at 9:00am ANESTHESIA FINAL (GRADED) <ul style="list-style-type: none"> • IA of choice (Perform FIRST) • PSA of choice • Have instructor sign tracking sheet for extra IA & PSA
12/15/22 Week 17	FINALS WEEK No LAB

Failure to complete ALL assignments & coursework contained herein or assigned by the course director will result in a failing grade in this course

Salt Lake Community College Dental Hygiene Program
Course Verification of Agreement

Local Anesthesia Lab DH2341

I _____ have read the DH 2341 Fall
(Print your name)

Syllabus for Dental Hygiene, Local Anesthesia Lab. I have been given the opportunity to have any questions I had regarding the contents of this syllabus answered; thus, I understand that I am responsible for ALL the material contained in this syllabus.

I also agree to comply with all course requirements and program standards contained within the Salt Lake Community College Course DH 2341 syllabus document.

Student Signature: _____ Date: _____