



Perry Health Science Campus
SCHOOL OF DENTAL HYGIENE

COURSE NUMBER & TITLE: DEN 128 - Management of Pain

CURRICULUM LEVEL: First Year Undergraduate Dental Hygiene Students

COURSE CREDIT HOURS: Three (3) semester hours

CLASS LOCATION: Perry Health Sciences Campus, Building B, Room 516

CLASS DAY & TIME: Wednesdays, 8:00 am to 9:00 am (EST)

COURSE DESCRIPTION & PURPOSE: This course is designed to teach the student management of pain control through the use of local anesthetic agents and the administration of nitrous oxide and oxygen when used as a sedative. The physiology and pharmacology agents, indications and contra-indications for use, and the treatment of complications and emergencies will be emphasized. The purpose of this course is to gain knowledge in pain management used in conjunction with the actual delivery of local anesthesia and nitrous oxide and oxygen.

PREREQUISITES: DEN 110 and current certification of CPR. Must be enrolled in the Dental Hygiene Program.

COREQUISITES: DEN 131 and DEN 223

INSTRUCTOR: Assistant Professor Jocelyn Weinhagen, RDH, BA

Office Location: Wake Tech Community College, Perry Health Sciences Campus, Room 233

Office Hours: Thursdays from 1:00pm to 4:00pm (EST)

Office Phone: (919) 747-0126

Email Address: jdweinhagen@waketech.edu

INSTRUCTOR EMAIL POLICY: Please contact me using the Blackboard course messaging system. Messages will be checked daily and responded to as soon as possible. Please be patient with responses during weekends and holidays. **Email:** Blackboard Course Messaging System (preferred); jdweinhagen@waketech.edu. I will periodically send out course messages to the class and you are expected to regularly check for messages by using the "Email/Messages" tab in Blackboard.

METHODS OF DELIVERY: This is an on-campus face-to-face course that will utilize lectures, class participation, audio-visual aids, individual and collaborative group work, written assignments, reading assignments, and videos will be utilized as needed. The Blackboard learning management system provided to you by Wake Tech is where course content will be housed.

REQUIRED TEXTBOOK:

The following required textbook is available for purchase at the Wake Tech, Perry Health Science Campus bookstore.:

Logothetis, D.D. (2022). *Local Anesthesia for the Dental Hygienist* (3rd ed.). Elsevier.
ISBN 9780323718561.

SUPPLEMENTAL VIDEOS: There will be videos to review for DEN 128. Videos can be found in the Course Resources area in Blackboard.

RECOMMENDED TEXTS: Some assignments for this course require review of pharmacology and patient management. The following texts are recommended but not required, but should be in your “library” from previous courses.

Haveles, EB. *Applied Pharmacology for the Dental Hygienist* (8th ed.). Elsevier.
ISBN 978-0-323-59539-1.

Lexi-Comp. (2022). *Drug Information Handbook for Dentistry*. (28th ed.).
ISBN-13: 978-1-59195-382-1

Boyd, L.D., Mallonee, L.F., Wyche, C.J., (2020)., *Wilkin’s Clinical Practice of the Dental Hygienist* (13th ed.). ISBD-13: 978-1496396273

METHODS OF EVALUATION: Throughout the semester, students will be assessed for achievement of course goals and objectives by a variety of methods including quizzes, tests, group and individual case studies. Some of these will be graded and some will not be graded. Regardless, completion of all is expected. Quizzes will be used as formative assessment only. A list of graded requirements is below:

	List of Graded Assessments:
	The following is a list of graded assessments. Due dates can be found in the course syllabus schedule, the course activity sheet and will be discussed in class.
1.	Participation (includes informal assessments and handouts.)
2.	Case Studies (3)
3.	<u>Group Case Study & Presentation</u> – Create a case study describing treatment on a periodontal patient and the pain management option chosen. Include health history, possible contraindications, and post op instructions.
4.	Two (2) Tests -Each will be multiple-choice; a test outline will be available for study review.
5.	Final Examination (comprehensive)

All **evaluations** must be **completed individually** unless otherwise noted. There will be no answering of questions during a quiz or exam. Email me if you have a question or concern about the questions on the quizzes, tests, or exams.

1. **Assignments** will be given throughout the semester.
2. **Quizzes** will be given covering material presented in class, reading assignments, and assignments completed. Quizzes will be available in Blackboard
3. **Exam #1** will cover chapters 1-9
4. **Exam #2** will cover chapters 10-13

5. A **final comprehensive** exam will be given.

TESTING PROTOCOL: Tests may cover lecture materials, assigned readings, PowerPoints, and handouts. The final exam will be comprehensive. **Exams will be taken at the e-Learning Testing Center at Wake technical Community College.** There are four locations located throughout the Wake Tech area. Locations and times can be found at <https://www.waketech.edu/online-learning/resources/eltc>. Choose one convenient for you. Once testing times are available, please sign up for your exams as soon as you can. The early bird catches the worm. Should you have difficulty in scheduling a time, please notify the instructor immediately. Your test grade may be negatively impacted as a result of failure to secure a test site early.

All student exam appointments for online/hybrid testing must be secured through SmarterProctoring Management Services located in the instructor's Blackboard course shell. The eLTC strongly recommends scheduling appointments in advance – at least 24 hours before desired testing time – to ensure preferred appointment times, seating and/or location.

GRADING CRITERIA:

ASSIGNMENT WEIGHTS:

Assignment	Undergraduate DEN 128
Case Studies (3)	15%
Case Study & Presentation	15%
Participation (includes informal assessments and handouts)	15%
Exam #1	15%
Exam #2	15%
Final Examination	25%
Total Grade	100%

GRADING SCALE:

93 - 100	A
85 - 92	B
77 - 84	C
70 - 76	D
69 and below	F

ATTENDANCE POLICY: This class consists of 1 class meeting day per week for 16 weeks, so there are a total of 16 class meetings. Attendance of at least 90% indicates attendance at 14 of the 16 class meetings must be attended. Therefore, no more than 2 class sessions may be missed. More information below.

Should a student need to be absent, the student must notify the instructor immediately via email and call the Dental Hygiene Clinic at (919) 747-0126.

MISSED TESTS & EXAMS:

Students should notify the instructor in advance of any planned absence. A phone call should be made or e-mail sent to notify the course director and instructor of any last minute absence as soon as possible. Students are responsible for all missed work and for collecting handouts and notes from a classmate. **Should a student need**

to be absent, the student must notify the instructor immediately via email and call the Dental Hygiene Clinic at (919) 747-0126.

Students should take the initiative to meet with the course director the same day they return to campus to discuss scheduling a time to take a missed exam, if allowed. No make-up quizzes will be given. Any missed exams should be completed within 10 days of the date of return to classes following the absence, if allowed. Make-ups will be considered on an individual basis and will take place only if the absence is deemed to be a documented, excused absence.

SUBMITTING ASSIGNMENTS: Assignments are to be submitted electronically on the date and time indicated on the schedule. Follow the submission guidelines on Blackboard. Assignments may be submitted using Microsoft Word or a pdf file. Assignments will have a download area located within the “Lessons” tab in Blackboard. Should any student have technical difficulties, contact the Wake Tech Help Desk at (919) 866-7000 for assistance. DO NOT wait until the last minute for submission in the event of a computer failure.

LATE ASSIGNMENTS: Assignments are expected to be submitted on time. **Late work will be accepted at instructor’s discretion.** All portions of the assignments are to be turned in at one time. Assignments not completed will be given a score of zero.

STUDENT EXPECTATIONS: As a healthcare provider, it is important to be present every day, be alert. And be aware of your surroundings. Ethics and professionalism are important in your student and professional career. Communication is key. As an adult learner, it is up to you to be responsible for your own learning. To be successful in this class, you are expected to be prepared and ready to learn.

All students are expected to:

- Read course material.
- Participate in class discussions.
- Complete all assignments on time.
- Ask for help, if needed.
- Respect all class participants and instructors.

COMPUTER AND CELL PHONE USE IN CLASS: Phones can only be used in class when the instructor indicates. Please turn phones off upon arriving to class or place them on vibrate mode. If your cell phone rings during class, you may be asked to leave the classroom and considered absent for the class session. Computers can be used in class, however only for class specific content.

GENERAL COMPUTER AND TECHNICAL REQUIREMENTS: You will need a computer with internet access, activated Wake Tech email and Blackboard. Informal assessment quizzes will be accessed via Blackboard.

IMPORTANT ADDITIONAL UNIVERSITY & SCHOOL OF DENTAL HYGIENE STATEMENTS:
STATEMENT OF STUDENT RESPONSIBILITIES AND ACCOUNTABILITIES:

Wake Tech Core Values

Wake Technical Community College will structure its operations, training and educational programs around the Core Values of accountability, respect, responsibility, critical thinking, communication, and collaboration.

Accountability—Accountability is essential for an environment of learning. Those who are accountable stand by their words and actions, taking full responsibility for what they create and for what they contribute to the community.

Respect—Respect is a prerequisite for enhancing learning. Community members who respect themselves and others help create a safe, yet open, climate of learning.

Responsibility—Responsibility is the root of success. Students who assume personal responsibility for their education will reach their goals. Responsible students also make contributions to their communities.

Critical Thinking—Critical thinking is the fundamental purpose of higher education. The ability to solve problems through the application of the appropriate skills is critical to all disciplines.

Communication—Communication is increasingly the key competency for living and working in the information age. Communicating effectively in oral and written forms through traditional and new media is a powerful tool for personal and career success.

Collaboration—Collaboration, by bringing together individual knowledge and talents, creates teams that are greater than the sum of their parts. Such teamwork maximizes benefits to individuals and the community.

Wake Technical Community College Attendance Policy

Attendance policies are in accordance with the Wake Tech policies as noted in the college catalog. The catalog states, “Students are expected to be in attendance at least 90 percent of all scheduled class meetings.

Absences: An absence is defined as missing one-third or more of any regularly scheduled class meeting. In the event that a student’s absences in a class exceed 10 percent and the absences are not justified to the satisfaction of the instructor, the instructor will submit Student Course Withdrawal Form to the Registration and Student Records Services Division, or to the email drop box designated for withdrawals, to document the last date of attendance.”

Tardiness and Early Departure: Students are expected to arrive to class on time and to remain in class for the entire class period. Arriving late or leaving early disrupts the learning environment; however, extenuating circumstances may necessitate late arrivals or early departures. Classroom doors are not generally locked. If doors are locked for security or other reasons, they will be opened for students who are justifiably late or have a justifiable reason for leaving early.

Patterns of tardiness or early departure that cannot be justified to the satisfaction of the instructor will be considered violations of the attendance policy – two tardies or early departures will equate to one absence. Students should consult course handouts or instructors for more specific details.

Student Success (Meeting established deadlines)

It is important to manage your time to be successful - set a schedule and stick to it! Studies say you should set aside the same times each week for your studying - the amount of time you set aside should align with the guidance above.

1. Do not wait until the day an assignment is due to begin working on it! Use your scheduled time wisely and complete assignments as early as possible in case you have any questions or run into any problems. We do not have self-paced classes; students submit assignments each week for attendance, feedback, and grading.

2. Order your required materials as early as possible (Textbooks, Lab Kits, etc.) and download/open all software and programs that you will use as soon as you know you’ll be using it based on guidance from your faculty member (e.g. Blackboard, Microsoft Teams, Respondus, Tegrity, Flipgrid, etc). It is the student’s responsibility to ensure that their technology works. If you need assistance, please contact the Wake Tech IT Department at 919-866-7000.

3. Engage with your instructor during their online office hours. These are times set aside specifically to help students with any questions or issues they might have with the course material. You can drop in and ask a single question, or many questions, to help clarify the course and material.

4. Be sure to check your Blackboard sites every day for any updates, Announcements, or reminders of upcoming assignments.

5. Be sure to check your official Wake Tech email at least once per day, and respond to instructor emails within 48 hours (not including weekends and holidays).
6. If contacting faculty via email (only through your official Wake Tech email), Teams chat, or Discussion Board, please allow 24 hours of response time (not including the weekends or college holidays), as a general rule. Faculty will provide their guidance on timelines and preferences for communication in their syllabus.
7. Faculty like to hear both your challenges and your successes! Please reach out to them if you have questions or problems, but also please touch base with them once in a while to let them know what you like about the class or what you're doing to be successful in the course!

Wake Technical Community College Academic Integrity Policy

"Wake Technical Community College expects students to demonstrate the highest personal integrity in all academic work and behavior.... Students may be asked to sign a statement of academic integrity upon entering Wake Tech classes." Review the Student Code of Conduct, Rights, and Responsibilities section of Wake Tech's catalog (opens in new window), URL:

<http://catalog.waketech.edu> , for additional information.

Student Code of Conduct

"Students are expected to conduct themselves in accordance with generally accepted standards of scholarship and conduct. The purpose of the Student Code of Conduct (the Student Code) is not to restrict student freedom but to protect the rights of all students in their academic pursuits." Review the Student Code of Conduct, Rights, and Responsibilities section of Wake Tech's catalog (opens in new window), URL: <http://catalog.waketech.edu> , for additional information.

Important Criminal Background Check Reminder

Students enrolled in Health Sciences Programs are responsible for communicating, in writing, to Barbara Smith (Criminal Background Check Administrator) within three (3) days any arrest, criminal charge, or criminal conviction, including felonies, misdemeanors, DUI/DWI that have occurred subsequent to the performance of their criminal background check. Questions regarding this policy should be directed to Barbara Smith at (919) 866-5694 or basmith1@waketech.edu .

Violations of the academic integrity policy

Cheating and plagiarism, as defined below, are forms of academic dishonesty that violate the academic integrity policy. Students found responsible for violating academic integrity policies are subject to penalties from instructors and sanctions from Student Conduct Officers.

Cheating: Receiving or giving another student any unauthorized information or material during or after a quiz, test, exam or assignment; working with others, either virtually or in person, to complete a quiz, test, exam, project or assignment without prior approval from the instructor or the use of unauthorized resources

Plagiarism: Taking or passing off as one's own the ideas, words or work of another person. When students present others' ideas, words or work in a written or oral assignment, they must document the source(s) as directed by the instructor of the course. Plagiarism also includes buying or selling work to others, as well as providing false information about submitted work.

Self-plagiarism: Reusing one's own work in more than one course without acknowledgement of its previous use. Speak to your instructor if you are unsure if the work submitted would be viewed as self-plagiarism.

Social Media Policy

Social media has proven to be a useful source for marketing the services of our students to a broad audience. For this reason, it is important to use social media for marketing and communication to the community appropriately.

Inform your instructor: Before using social media as a means of marketing and communication, inform your instructor. Instructors and students must understand which platforms are approved for social media marketing and how to market the services of our program.

Have a plan: Consider your message, audience, and goals, as well as a strategy for keeping your posts up to date.

Link to college sites: The goal of social media is to funnel people to more information. By linking potential clients to our website, they will have a better understanding of our services and how to apply for our services.

Approved Social Media Sites for Marketing: Facebook, Twitter, Instagram, LinkedIn.

Do not market on these sites: Craigslist, 4Chan, Reddit, Tinder, WhatsApp, Snapchat, TikTok.

Questions: For any additional questions or clarification, please contact the Department Head for Dental Hygiene, Brenda Maddox, RDH, MS, bpmaddox@waketech.edu

CARE Center

When personal stressors and out-of-the-classroom challenges interfere with your academic performance and daily life, the CARE Center is here to provide wraparound supports such as Wellness Services (free, brief mental health counseling), student success coaching, food resources, emergency financial aid including funding for textbooks and course materials, technology assistance, and transportation assistance. To learn more, contact us at care@waketech.edu or 919.866.6111

Disability Support Services

Wake Technical Community College does not discriminate on the basis of disability in the admissions or employment processes or in access to programs, facilities, or activities. Disability Support Services (DSS) is available for students who require academic accommodations due to any physical, psychological, or learning disability. Please visit the website for Disability Support Services (opens in new window), <https://www.waketech.edu/student-services/disability-supportservices/current-dss-students> URL; <http://disabilityservices.waketech.edu>, for additional information. To connect with a DSS coordinator and determine eligibility, visit the Main campus office in Holding Hall, Room 124. Phone: 919-866-5670 (Sorenson video phone for the deaf: 919-324-1508). Fax: 919-662-3616. Or, visit the North campus office in Building A, Room 317. Phone: 919-532-5713. Fax: 919-878-1896.

Policies in College Catalog

Students are responsible for reading the information and policies set forth in the Wake Technical Community College catalog (opens in new window), URL: <http://catalog.waketech.edu>, as well as additional requirements set by the instructor. Students are held accountable for this information. New policies and policy changes will be communicated to students on the official Updates page (opens in new window), URL: <http://Updates.waketech.edu>.

Official Communication with Students Policy

Every curriculum student is provided with an official Wake Tech email account through the Wake Tech student portal (opens in new window), URL: <http://my.waketech.edu> .

Students must first activate their my.waketech.edu account, wait 24 hours, and then activate the email account. This college-issued email account is to be used for all email correspondence with instructors and other college officials.

Official correspondence from the college (communications from instructors, information about registration or financial aid, etc.) will be sent to students' Wake Tech email address ONLY. Instructors and college officials may refuse to accept student emails sent from other addresses. Review the Registration and Records section in Wake Tech's catalog (opens in new window), URL: [<http://catalog.waketech.edu>], for updates to the Official Communication with Students Policy.

FERPA Statement

Review the Academic Policies section of Wake Tech's catalog (opens in new window), URL: <http://catalog.waketech.edu> , for updates.

Following the Family Educational Rights and Privacy Act (FERPA) of 1974, instructors are prohibited from discussing a student's grade or other matters related to academic performance outside of the Blackboard grade center. Faculty may send grades to individual students via email only when written authorization from the student is on file (WTCC Form 1126).

The Authorization to Release Instructor Graded Material (WTCC Form 1126) does not apply to final grades. Final grades will be accessed through WebAdvisor only or with a Request for Transcript.

Students may request this form from the instructor.

Course Disclaimer: Please note that the instructor of this course reserves the right to make any changes to the syllabus, course schedule, calendar of events, discussion threads, assignments, etc. throughout the course of the semester. You will be notified of those changes in advance when this occurs. Changes may be required or needed as various circumstances call for them such as external circumstances that may not have been foreseen by the institution, unexpected events, weather conditions, etc. Please approach these changes with flexibility and understanding that changes can occur

Syllabus Objectives

GENERAL COURSE OBJECTIVES:

At the completion of this course, the student should be able to:

1. Describe why pain control is important in the practice of dental hygiene.
2. Discuss the neurophysiology of local anesthesia.
3. Explain the pharmacology of local anesthetic agents.
4. Describe the role of vasoconstrictors in local anesthesia.
5. Compare and contrast the different available local anesthetic agents and their uses.
6. Explain the role of topical anesthetic agents.
7. Discuss the importance of preanesthetic assessment.
8. Determine the correct dosages of local anesthetic.
9. List the armamentarium necessary for topical and local anesthetic delivery.
10. Identify facial anatomy as it relates to local anesthesia.
11. List the step in the basic injection technique.

12. Evaluate which maxillary injection may be required for the different areas on the maxillary arch.
13. Evaluate which mandibular injection may be required for the different areas on the mandibular arch.
14. Compare and contrast the differences in local anesthetic delivery between adults, children, and adolescents.
15. Explain the role of nitrous oxide/ oxygen in pain management.
16. Justify the importance of having a plan in the event of a local complication.
17. Justify the importance of having a plan in the event of a systemic complication.
18. Evaluate the rationale of risk management and exposure prevention in the dental office.

SPECIFIC OBJECTIVES BY CHAPTER & TOPIC:

Upon completion of each instructional unit, the student should be able to:

Chapter 1; "Local Anesthesia in Dental Hygiene Practice: An Introduction":

- a. Describe the history of pain control in health care.
- b. Explain how anesthesia is practiced by dental hygienists.
- c. List the state requirements for local anesthesia provided by dental hygienists in North Carolina.
- d. Discuss patients' perceptions of anesthesia and pain control.
- e. Suggest different methods of pain management for the dental patient.

Chapter 2; "Neurophysiology":

- a. Explain the main function of a neuron.
- b. Describe the basic structures and functions of a sensory neuron.
- c. Discuss the peripheral nerve anatomy.
- d. summarize the mode of action of local anesthetic agents on nerves.
- e. Reflect on why a patient may complain of inadequate anesthesia.

Chapter 3; "Pharmacology of Local Anesthetic Agents":

- a. Define local anesthetics.
- b. Identify the mechanism of local anesthesia.
- c. Describe the pharmacokinetics of local anesthetics.
- d. Explain the systemic effects of local anesthetic drugs on the central nervous system and the cardiovascular system.
- e. Propose rationale to the patient why they did not get numb after reanesthetization.

Chapter 4; "Pharmacology of Vasoconstrictors":

- a. Compare and contrast the benefits of using vasoconstrictors.
- b. Discuss the use of vasoconstrictors in dentistry.
- c. Explain the actions of epinephrine of specific systems and tissue.
- d. Describe the side effects and overdose of vasoconstrictors.
- e. Share how a dental hygienist may react to a patient with a vasoconstrictor overdose.

Chapter 5 "Local Anesthetic Agents":

- a. Describe the composition of local anesthetic agents.

- b. List local anesthetics using their generic and proprietary names.
- c. Discuss the selection considerations when choosing a local anesthetic.
- d. Differentiate between a relative and an absolute contraindication.
- e. Propose post operative instructions to a patient who has been given local anesthetic.

Chapter 6; "Topical Anesthetic Agents":

- a. Discuss the purpose of topical anesthetics.
- b. List the common forms of topical anesthesia.
- c. Describe methods for delivery of topical anesthetics drugs.
- d. Explain how to avoid toxic reactions from topical anesthesia.
- e. Propose an alternative method to pain control other than local anesthesia.

Chapter 7; "Preanesthetic Assessment":

- a. Discuss the importance of obtaining a patient's medical history, dental history, and dialogue.
- b. Determine the relative risk presented by a patient prior to administering local anesthesia by interpretation of the health history.
- c. Summarize vasoconstrictor contraindications
- d. List the concerns for patients with cardiovascular disease, hyperthyroidism, asthma, sickle cell anemia, and allergic allergies when selecting local anesthetics.
- e. Propose a pain management solution for patients with relative and absolute contraindications to local anesthesia.

Chapter 8; "Determining Drug Doses":

- a. Define maximum recommended doses (MRD) for a local anesthetic.
- b. Name two potentially limiting drugs in the local anesthetic solution when administering local anesthetics with vasoconstrictors.
- c. Describe what factors to consider when giving local anesthetic to children.
- d. Determine the limiting drug when a local anesthetic agent and a vasoconstrictor are combined in an anesthetic cartridge.
- e. Suggest the appropriate drug dose for adequate pain control based on a patient's medical history.

Chapter 9; "Armamentarium/ Armamentarium Preparation":

- a. Name the three main components to the armamentarium of anesthetic equipment and supplies.
- b. List the component of the anesthetic syringe.
- c. Discuss proper care and handling of needles to minimize the risk of cross contamination.
- d. Describe the steps necessary to assemble, disassemble the aspirating syringe.
- e. Suggest different types of armamentarium in the delivery of local anesthetic.

Chapter 10; "Anatomic Considerations for Local Anesthesia Administration":

- a. Identify the skull bones that are relevant to the administration of local anesthesia.
- b. Describe in detail the various landmarks of the maxilla, palatine bones, and the mandible that are relevant to the administration of local anesthesia.
- c. Name the branches of the trigeminal nerve.
- d. Identify the branches of the trigeminal nerve that are relevant to the administration of local anesthesia on a diagram.
- e. Reflect on why anatomical differences may affect the delivery of local anesthesia.

Chapter 11; “Basic Injection Techniques”:

- a. Describe four anesthetic techniques.
- b. List the steps to provide a successful injection.
- c. Discuss the various care plans for pain control.
- d. Explain why aspirating the needle is important.
- e. Demonstrate a commitment in establishing rapport strategies with patients to reduce stress.

Chapter 12 “Maxillary Anesthesia”:

- a. List the four types of maxillary nerve blocks.
- b. Identify the target locations for the maxillary nerve blocks.
- c. Locate the correct tissue inserted into by the local anesthetic needle for each maxillary facial injection.
- d. Name the various types of palatal nerve blocks.
- e. Indicate a commitment to understanding why an injection failed to achieve profound numbness.

Chapter 13; “Mandibular Anesthesia”:

- a. Describe the various types of mandibular nerve blocks.
- b. Discuss the coverage of the inferior alveolar block.
- c. Discuss coverage of the buccal nerve block.
- d. Discuss the coverage of the mental nerve block.
- e. Propose a pain management treatment plan for mandibular quadrant scaling.

Chapter 14; “Local Anesthesia for the Child and Adolescent”:

- a. Discuss why systemic toxicity is more common in children than in adults.
- b. Describe how to prevent systemic toxicity in children.
- c. Compare and contrast the risks and benefits of each local anesthetic agents for the pediatric population.
- d. Explain the prevention and management of postoperative soft tissue injuries in children.
- e. Indicate a commitment to on-going learning for stress reduction for the patient in the dental office.

Chapter 15; “Nitrous Oxide/ Oxygen Administration”:

- a. Describe the role of nitrous oxide/ oxygen as an adjunct to local anesthesia injections.
- b. List the indications and contraindications of N₂O/O₂.
- c. Explain the advantages and disadvantages of N₂O/O₂.
- d. Summarize the steps associated with administration of N₂O/O₂.
- e. Propose management resolutions for the overuse of N₂O/O₂ by patients and operators.

Chapter 16; “Local Complications”:

- a. Define local anesthetic complications.
- b. Describe the three primary categories for local anesthetic complications.
- c. Discuss the possible complications of local anesthetic administration.
- d. Explain the management and prevention of local complications.
- e. Appreciate strategies for reducing local complications.

Chapter 17 “Systemic Complications and Emergency Management”:

- Discuss the predisposing factors to systemic complications.
- Explain the causes of local anesthetic overdoses and their prevention.
- Recognize allergic reactions derived by an immunologic reaction to an antigen.
- Identify the signs, symptoms, and management of medical emergencies.
- Indicate a commitment to life-long learning of emergency management.

Chapter 18; “Risk Management and Exposure Prevention”:

- Describe how risk management plays a role in providing dental hygiene care.
- Discuss the importance of effective communication between the dental hygienist and the patient and the dental hygienist and the employer.
- Identify potential legal issues related to dental hygiene treatment.
- Outline the procedures to reduce the risk of an accidental needle stick exposure.
- Appreciate the value of proper patient documentation for the administration of local anesthetics.

Syllabus Course Schedule

This schedule is a living document and is subject to change due to unforeseen events

Semester Week Number	Meeting Class Dates	Chapters/ Topics	Readings must be completed BEFORE class. Assignments are due on the dates indicated by 11:59 pm. Please submit assignments using Blackboard <u>Assessment reviews and Handouts will be found under the Assignments tab in Blackboard.</u> Assessments can be taken multiple times.
Week 1	Wednesday Jan 4 8-9 am	Chapter 1 Syllabus review Local Anesthetic Introduction	Read: pages 2-9 Due: Syllabus quiz
Week 2	Wednesday Jan 11 8-9 am	Chapter 2,3 and 4 Neurophysiology Pharmacology of L.A. Agents and Vasoconstrictors	Read: pages 12-25, 29-40, and 43-50 Due: Assessment Review
Week 3	Wednesday Jan 18 8-9 am	Chapters 5 and 6 Topical and Local Anesthetic Agents	Read: pages 53-76 and 80-90 Due: Assessment Review Review Case Study Assignment
Week 4	Wednesday Jan 25 8-9 am	Chapters 7 and 8 Preanesthetic Assessment, Drug Doses	Read: pages 94-108 and 114-123 Partner Work: Health History Review Due: Assessment Review Due Jan 30: Case Study #1

Week 5	Wednesday Feb 1 8-9 am	Chapter 9 Aramentarium	Read: pages 131-181 Handout: Aramentarium Identification
Week 6	Wednesday Feb 8 8-9 am	Chapter 10 Anatomy Review	Read: pages 184-206 Due: Assessment Review Handout: Anatomy charts Review Exam Outline Handout Review For Exam #1
	Feb 8 to Feb 10 e-Learning Testing Center	Exam #1 Chapters 1-9	Exam available from Feb 8 to Feb 10. Exams are to be taken at the e-Learning Testing Center of your choice. Please schedule early.
Week 7	Wednesday Feb 15 8-9 am	Chapters 11 Basic Injection Techniques	Read: pages 209-226 Review Videos Due: Assessment Review Handout: Anatomy charts Due Feb 20: Case Study #2
Week 8	Wednesday Feb 22 8-9 am	Chapter 12 Maxillary Anesthesia	Read: pages 233-274 Review Videos::ASA, MSA, PSA and IA Due: Assessment Review Handout: Maxillary Anesthesia
Week 9	Wednesday Mar 1 8-9 am	Chapter 13 Mandibular Anesthesia	Read: pages 280-318 Review Videos: Buccal, Mental and Inferior Alveolar Due: Assessment Review Handout: Mandibular Anesthesia Due March 6: Case Study #3
Week 10	Wednesday Mar 8 8-9 am	Chapter 14 Local anesthetics for the Child and Adolescent	Read: pages 326-332 Due: Assessment Review Review Exam Outline Handout Review for Exam #2
	Friday March 10 Online	Exam #2 Chapters 10-13	Exam available from March 8 to March 10. Exams are to be taken at the e-Learning Testing Center of your choice. Please schedule early.
Week 11	Wednesday Mar 15 8-9 am	Spring Break	
Week 12	Wednesday Mar 22 8-9 am	Chapter 15 Nitrous Oxide/ Oxygen Administration	Read: pages 335-344 Review Video Meet for Group Case Study Due: Assessment Review Handout: N₂O/O₂

Week 13	Wednesday Mar 29 8-9 am	Chapter 16 and 17 Local and Systemic Complications; Emergency Management	Read: pages 347-360 and 362-374 Group Role Play Due: Assessment Review
Week 14	Wednesday April 5 8-9 am	Chapter 18 Risk Management and Exposure Prevention	Read: 229-232 and 377-384 Due: Assessment Review Due April 5: Group Case Study
Week 15	Wednesday April 12 8-9 am	Group Case Study Presentations	Begin review for Final exam Review Final Exam Outline Handout
Week 16	Wednesday April 19 8-9 am	Group Case Study Presentations Final Exam Review	Continue Final Exam Review
	Friday April 21 Online	Final Exam Comprehensive	Exam available only Friday April 21 to Tuesday April 25. Exams are to be taken at the e-Learning Testing Center of your choice. Please schedule early.

Syllabus Course Activity Sheet

Weeks		Teacher Lectures	Video media	Group Work	Partner Work	Individual Work	Guest Speaker	Student Oral Presentation	Quiz (Assessments)	Test/Exam
1		X							X	
2		X							X	
3		X							X	
4		X			Preanesthetic Assessment Interview	Case Study #1			X	
5		X							X	
6		X							X	Test 1
7		X	X			Case Study #2			X	
8		X	X						X	
9		X	X			Case Study #3			X	
10		X							X	Test 2
11		Spring Break								
12		X		Oral Presentation groups meet					X	
13		X		Role Play					X	
14		X							X	
15							X	Group Case Study	X	
16		X						Group Case Study	X	Final Exam
Total		14	3	2	1	3	1	2	15	3