



CDM 2040 - Pharmacology, Analgesia, and Local Anesthesia I

I. Course Information

Course: CDM 2040 - Pharmacology, Analgesia, and Local Anesthesia I
Semester and Year: Fall 2021
Course Start and End Dates: 07/26/2021 - 12/12/2021
Course Reference Number: 23979
Semester Credit Hours: 1.0
Building and Room: HPD-Assembly I Building - 2101TERY

II. Instructor Information

Professor: Ana Maria Ospina
Email: aospina@nova.edu
Office Hours:
 Wednesday 9:00am-12:00m

III. Class Schedule and Location

Day	Date	Time	Location	Building/Room
W	07/28/2021 - 12/08/2021	7:50 AM - 8:40 AM	Ft Lauderdale/Davie Campus	HPD-Assembly I Building- 2101TERY

IV. Course Description

Pharmacology, Analgesia and Local Anesthesia I, CDM 2040, is a didactic course in a class room with formal lecture oriented. Students will be presented information concerning the delivery of local anesthesia, including the application of pertinent anatomy, physiology, and pharmacology. The content in this pre-clinic/didactic course is applicable to direct patient care for local anesthesia, patient evaluation and surgical procedures.

V. Course Objectives / Learning Outcomes

Course Learning Outcomes

Upon successful completion of Pharmacology, Analgesia and Local Anesthesia I, CDM 2040, students will be prepared to deliver local anesthesia. They will be able to:

1. Know and understand the components of a thorough medical history.
2. Develop and understanding of the skills involved in performing a patient examination
3. Know and understand basic concepts of the neuroanatomy and physiology of local anesthesia.
4. Develop a comprehensive knowledge of the local anesthetic drugs and vasoconstrictors used in dentistry.
5. Develop a comprehensive knowledge of the regional anatomy for local anesthesia.

6. Know and understand the various maxillary and mandibular injection techniques.
7. Develop an understanding of the etiology and management of local anesthetic complications.
8. Know and understand the basic concepts of prescription writing and the use of analgesics in dental practice.

COLLEGE OF DENTAL MEDICINE COMPETENCY STATEMENTS Faculty Note: Use the most updated version of the CDM Predoctoral Competency document to select the corresponding competencies for this course. Be sure to select the number of the competency statement and the verbatim competency statement as it appears on the competency document. For each competency indicate the type of assessment (formative or summative) that will be employed to measure the attainment of the competency

Core Competencies:

5. Graduates must be competent in local anesthesia, and pain and anxiety control, including consideration of the impact of prescribing practices and substance use disorder. [CODA Predoctoral Standard 2-24(e)]

Formative assessments: Quizzes, midterm exam

Summative assessment: Final Exam

19. Graduates must be competent in the application of biomedical science knowledge in the delivery of patient care. [CODA Predoctoral Standard 2-15]

Formative assessments: Quizzes, midterm exam

Summative assessment: Final Exam

22. Graduates must be competent in applying legal and regulatory concepts related to the provision and/or support of oral health care services.

[CODA Predoctoral Standard 2-18]

Formative assessments: Quizzes, midterm exam

Summative assessment: Final Exam

28. Graduates must be competent to access, critically appraise, apply, and communicate scientific and lay literature as it relates to providing evidence-based patient care. [CODA Predoctoral Standard 2-22]

Formative assessments: Case Presentation

Summative assessment: Final Exam

- This refers to the same as the items in the CDM Competency Document; please see them listed below.

FOUNDATION KNOWLEDGE

STATEMENTS FOR THE GENERAL DENTIST

FOUNDATION KNOWLEDGE FOR THE GENERAL DENTIST

FK1: Apply knowledge of molecular, biochemical, cellular, and systems-level development, structure and function to the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK1-2: Apply knowledge of structure and function of cell membranes and the mechanism of neurosynaptic transmission. (Encompasses Membrane Biology, Cell Biology, Biochemistry and Molecular Biology, Physiology, Neuroscience, etc.).

FK1-8: Apply knowledge of the principles of feedback control to explain how specific homeostatic systems maintain the internal environment and how perturbations in these systems may impact oral health. (Encompasses in Physiology, Systems Pathology, Oral Medicine, Pharmacology, etc.).

FK6: Apply knowledge of general and disease-specific pathology to assess patient risk in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK6-3: Explain the interplay of platelets, vascular endothelium, leukocytes, and coagulation factors in maintaining fluidity of blood, formation of thrombi, and causation of atherosclerosis as it relates to the management of oral health. (Encompasses Cellular and Molecular Pathology, General Pathology, etc.).

FK8: Apply knowledge of pharmacology in the prevention, diagnosis, and management of oral disease and

the promotion and maintenance of oral health.

FK8-1: Apply knowledge of pathologic processes and basic principles of pharmacokinetics and pharmacodynamics for major classes of drugs and over the counter products to guide safe and effective treatment. (Encompasses Basic and Applied Pharmacology, Cancer Biology, etc.).

FK9: Apply knowledge of sociology, psychology, ethics and other behavioral sciences in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK9-3: Apply principles of sociology, psychology, and ethics in managing fear and anxiety and acute and chronic pain in the delivery of oral health care. (Encompasses Sociology, Psychology, Ethics, Applied Pharmacology, Psychotherapy, etc.).

VI. Materials and Resources

Course Required Texts and Materials:

1. CONTEMPORARY ORAL AND MAXILLOFACIAL SURGERY, SEVENTH EDITION. HUPP ET AL ISBN: 978-0-323-55221-9
2. HANDBOOK OF LOCAL ANESTHESIA, SEVENTH EDITION. STANLY MALAMED ISBN: 978-0-323-58207-0

Faculty Note: Please indicate the textbooks that are **required** for the class and if available, a hyperlink to the textbook. Also, indicate if there are articles or links to **required readings** that are required for the class *and* the site where the articles are available for the student (such as: Canvas, library, database).

Course Supplemental Materials:

- Handouts
- Posted articles

- Supplemental, Recommended, Optional, NOT required.

The access to all instructional resources included in this course, such as, lectures, handouts, manuals, PowerPoint presentations, videos, photographs, pictures, articles and web links is limited to students who are enrolled in the course and is not for public distribution. The use of these instructional resources is exclusively for non-commercial and non-profit educational use. Students are recommended to download the instructional resources provided in the course, UNLESS, the course director instructs NOT to download specific files. We recommend that all students download, save, and keep the instructional materials from all the courses. These instructional resources will be very helpful references as you progress from year to year in the program.

VII. Course Schedule and Topic Outline

Course Schedule:

Schedule and Topic Outline:

ANESTHESIA I – CDM 2040 – Fall 2021 – Wed 7:50am in person and online (hybrid)

Date	Lecture	Lecturer	Reading Assignment
Aug 4	Introduction to OMFS Neuroanatomy & cranial nerves	Dr. Ospina Dr. Kuriakose	Handouts-and- Malamed:
Aug 11	Jurisprudence in Anesthesia	Dr. Ragan	Malamed: 1
Aug 18	Neurophysiology of L.A.	Dr. Kuriakose	Handouts
Aug 25	Medical History and Physical Exam	Dr. Splaver	Malamed:Chap10 / Hupp :C 1
Sep 1	Principles of management of head and neck pain	Dr. Bradley	Handouts
Sep 8	Pharmacology of Local Anesthesia	Dr. Powell	Handouts.
Sep 15	Pharmacology of Local Anesthesia	Dr. Powell	Handouts

Sep 22	Pharmacology of specific Agents	Dr. Ospina	Malamed: Chapter 2, 3, 4
Sep 29	Trigeminal Nerve- Landmarks for Anesthesia techniques	Dr. Ahmadi	Malamed: 12, 13, 14
Oct 6	Midterm		
Oct 13	Pharmacology of vasoconstrictors	Dr. Ospina	Malamed: Chapter 2, 3, 4
Oct 20	Armamentarium	Dr. Ospina	Malamed: Chapter 5, 6, 7, 8, 9
Oct 27	Clinical Aspects of LA Injection	Dr. Ospina	Malamed: 11
Nov 3	Techniques of Maxillary Anesthesia	Dr. Ospina	Malamed: Chapters 12, 13, 14
Nov 10	Techniques of Mandibular Anesthesia	Dr. Ospina	Malamed: Chapters 12, 13, 14
Nov 17	Final Exam	Dr Ospina	

Note: Changes in the sequence of lectures and reading assignments can occur without previous notification.

Topic Outline:

“Important note – Please note that due to the current Coronavirus pandemic, course schedules and course activities may be modified now and in future. Faculty and students are responsible for keeping apprised of these changes and adjusting their schedules accordingly.”

VIII. Assignments

Description of Assignments, Point Value and Rubrics

The synchronous lectures (lectures/date in bold in the schedule require mandatory attendance) students will be notified via Canvas-email about assignments. lectures and attendance

(This course has been modified from a full onsite to an online course based on Covid19state/federal regulations, but it is subjected to changes if the state/federal regulations change and onsite lectures will be mandatory)

Attendance is required in this course for the synchronous sessions

If the school re-opens the onsite sessions will have mandatory attendance

IX. Grading Criteria

Provide a List of all the graded work in the course (Assessments, Class Activities, Classwork and Assignments) with Point or Percentage Values, or required Completion item.

Grading Scale:

Successfully completion of the course needs to be 70% or above

Midterm	50%
Final Exam	50%
	100%

Unannounced quizzes maybe given based on the reading assignment designated for that lecture and/or previous lectures, and lecture material covered prior to that day. **Each quiz if given will be worth 5% of the final grade (deducted/or/added from/to the midterm exam).**

No makeup quizzes will be given if the absence is unexcused. The student is responsible for all material from lectures, reading assignments, and laboratory application REGARDLESS OF EXCUSED

OR UNEXCUSED ABSENCES/LATENESS. Written exams/quizzes may consist of multiple choice, True/False, fill-in, short answer, and/or identification type questions.

Classroom Policy and Professional Behavior:

As per guidelines established by the Commission on Dental Accreditation CODA we are required to document the methods by which the program will apply student identity verification, the student should: Register via link (for synchronous meeting)

Use their **video cameras** throughout the lecture in order to obtain credit for attending the lectures

- Please be sure that all cell phones, beepers, paging devices, any electronic media are kept on “silent mode”.

- Use of laptop computers during class time by students will be limited to its use for this course.

- Leaving the classroom during lecture time should be reserved for emergencies.

- The faculty has the right to request that a student leave the chatroom in cases of disruption and/or unprofessional behavior. The student will be responsible for material missed during that time.

No recording of any kind is permitted only the platform/system authorized by the school.

For online examinations:

- The students will need to use a second device, either another laptop/iPad or their cellphone as the Zoom only device.
- Students cannot use the same device when they will be taking the Exam soft examination on.
- Students will need to have Zoom installed and working prior to the exam.
- The device MUST be positioned so they are visible (as if this was a webcam mounted above their screen).
- Students must have their video turned on.
- the course director and one or two other faculty/administrative assistants proctors on the Zoom session.
- Everyone will have Gallery view enabled and will be moving back and forth between the screens to “proctor” the examination.

Any signs of a student(s) not adhering to the NSU-CDM Ethical Policies and Procedures will need to be reported to Academic Affairs office in an incident report form.

Course Final Grade Mode for the course (Pass/Fail, PR/NPR or Letter Grade). For a continuum course, please specify the grade mode for each semester.

Grade Mode:

Number grade

Course Grading Scale

Letter Grade	GPA	Equivalence
A	4	93 to 100
A-	3.75	90 to < 93
B+	3.5	86 to < 90
B	3	83 to < 86
B-	2.75	80 to < 83
C+	2.5	76 to < 80
C	2	70 to < 76
F	0	<70

X. Course Policies

COURSE ATTENDANCE REQUIREMENTS, REMEDIATION POLICY, ALL CDM POLICIES

Attendance Policy : Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook.

Link to the handbook:

<https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20a2020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0>

Remediation Policy: Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook.

“Successful completion of each CDM course requires compliance with the CDM Code of Behavioral Conduct.”

CDM College Attendance Policy Please note that, the Office of Admissions, Student Affairs and Services manages excused absences including sick days, mission trips, dental meetings, externships, interviews, family events, and other personal leave time, etc. and all student absences will continue to be tracked in axiUm. (Please refer to NSU Wide Religious Holidays Policy in the Student Handbook.) • Planned excused absences: please fill out the appropriate paperwork, with backup documentation (e.g. physician’s note), and submit on the online portal for the Office of Student Services prior to the scheduled absence, so that we can approve the leave time, and help you map out a plan to make up the work. It is the student’s responsibility to inform the course director for any courses you will be missing, your team leader for any clinic sessions that will be missed and/or the Coordinator of Extramural Programs (Dr. Mairelina Godoy), etc. of your planned absence(s). • Unplanned excused absences: please email Dr. Galka at agalka@nova.edu with a cc to cdmservices@nova.edu to report that you will be out, the reason for your absence and to also let us know if you plan to return to school the following day. You should also email the course director for any courses you will be missing, Dr. Mairelina Godoy mg1189@nova.edu for any rotations you will be missing and/or your team leader for any clinic sessions scheduled for that day. You must continue to email us daily to keep us updated if you will be out additional days and you can submit your SREA form together with backup documentation when you know the date you will return to school. • The student will be responsible for making up all missed rotations, all material presented in lectures, all laboratory projects, all written and practical examinations (including OSCEs) and must fulfill all didactic and clinical responsibilities as outlined in the individual course syllabi. Also, please review the attendance policy in the individual course syllabi. • Please do not schedule externships or interviews when you are scheduled for an examination or rotation. • Remember, it is your responsibility to reach out to our office for any unexcused absences to see if these fall under excused absences and/or to see how the unexcused absence will be managed. Also, please contact Dr. Mairelina Godoy directly to arrange makeup of any and all missed rotations, which will take place during optional clinic weeks. • Every student will be able to take 1 Personal Day/per Semester (3 Personal Days/Academic Year) with NO BACKUP DOCUMENTATION REQUIRED, provided the day(s) are not taken when you are scheduled for a rotation, written examination, practical/competency examination, OSCE or taken directly before/after a school holiday, etc. These absences will be managed through our office and designated as excused absences, provided our office is notified by email in advance or on the day of the absence. (Please indicate in the email if you will be using a personal day and designate D-1, D-2, D-3 or D-4 student.) For any additional absences to the 1 Personal Day/per semester, or in the event that you will be missing a written examination, a preclinical or clinical practical/competency examination, including an OSCE, or rotation, backup documentation WILL be required. Again, it is the student’s responsibility to notify all course directors, team leaders, and/or the Coordinator of Extramural Programs, etc. affected by your absence(s). Please check your individual schedule before requesting a personal day, to be sure that you will not be missing a rotation or an exam. A personal day will be recorded as a full day. (Half days cannot be requested.) A personal day must be requested on or before the day in question and cannot be used retroactively. **COVID-19 Protocol (subject to change)** 1. NO STUDENT IS TO COME TO SCHOOL SICK- if you do not feel right- please do NOT come to school. Email Dr. Galka- Assistant Dean for Admissions, Student Affairs and Services (agalka@nova.edu) 2. If a student has had direct/close contact with someone who has been infected with COVID-19 or is experiencing COVID-like symptoms- immediately self- isolate/quarantine. Email Dr. Galka and Dr. Schweizer- Director Infection Prevention Programs (schweize@nova.edu). a. Direct Exposure/ Asymptomatic: test on day 7-

if negative test result- can come back after 10 days : if NO test- quarantine 14 days b. Symptomatic (with or without Direct Exposure): test immediately and then again on day 7- if negative test result on day 7- can come back after 10 days : NO test- quarantine 14 days and must be symptom-free for 72 hours³. If a student tests positive for COVID-19: remain self-isolated. To return to school: student needs to have 2 consecutive negative test results in a row (at least 24 hours apart). 4. Students who are in quarantine, need to contact both Dr. Galka and Dr. Hernandez (marher@nova.edu) to determine if they can participate in online courses during this time

XI. University Policies

Academic Integrity: Cheating or inappropriate behavior during any written examination, quiz, any assignment, any project; plagiarism of any work(s), or other unethical behavior will not be tolerated; the student risks receiving a grade of zero (0) for said examination, quiz, assignment, project and may be referred to the Associate Dean for Academic Affairs and the Student Progress Committee. Please refer to appropriate pages of the NSU-CDM 2020-2021 Student Handbook. and the NSU Student Handbook located at

<https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20and%202020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0> .

Plagiarism Policy: All assignments, exams, works, patient care - written, laboratory, oral, clinical must be done as the independent work of each individual student. Plagiarism, copying or sharing the work of another or altering documentation to reflect something is your own work that is not; reflect false attendance, are considered serious offences that will not be tolerated. THESE ACTIONS WILL BE CONSIDERED IN VIOLATION OF THE UNIVERSITY AND THE CDM CODE OF BEHAVIORAL CONDUCT AND WILL BE REFERRED FOR APPROPRIATE ACTION. Students who need assistance in their learning goals should communicate with the appropriate NSU-CDM course director and/or faculty. Please refer to appropriate pages of the NSU and the CDM 2020-2021 Student Handbook. Following a link to the NSU Student Handbook

<https://liverootnova.sharepoint.com/dentmed/Active%20Docs/Policies%20and%20Procedures/Pre%20and%202020%20CDM%20PreDoctoral%20Student%20Handbook.pdf?wa=wsignin1.0>

University Policy

Class content throughout this course may be recorded in accordance with the NSU Class Recording Policy. If class content is recorded, these recordings will be made available to students registered for this course as a supplement to the classroom experience. Recordings will be made available to all students who were registered to attend the live offering of the class, regardless of a student's section or discipline, or whether the student is participating in the course online. If recordings are intended to be accessible to students or third parties who were not registered for the live offering of the class, students' personally identifiable information will be removed or redacted from the recording, unless (1) their written consent to such disclosure was previously provided, or (2) the disclosure is permissible in accordance with the Family Educational Rights and Privacy Act ("FERPA").

Students are prohibited from recording audio or video, or taking photographs in classrooms (including online classes) without prior permission from the instructor or pursuant to an approved disability accommodation, and from reproducing, sharing, or disseminating classroom recordings to individuals outside of this course.

Students found engaging in such conduct will be in breach of the Student Code of Conduct and subject to disciplinary action.

Title IX/Sexual Misconduct: Sexual violence and sexual harassment are contrary to our core values and have no place at Nova Southeastern University. In accordance with Title IX and other laws, NSU prohibits discrimination, including sex-based discrimination and discrimination towards pregnant/parenting students. If you or someone you know experience(s) sexual violence and/or sexual harassment, there are resources and options available. To learn more or to report an incident, please visit the NSU Title IX website at www.nova.edu/title-ix. Please be aware that as an instructor, I am not a confidential resource, and I will need to report any incidents of sexual misconduct to the NSU Title IX Coordinator. You can

also contact Laura Bennett, NSU's Title IX Coordinator directly at laura.bennett@nova.edu or 954-262-7858.