



CDM 2270 - Fixed Prosthodontics Lab II

I. Course Information

Course: CDM 2270 - Fixed Prosthodontics Lab II
Semester and Year: Winter 2021
Course Start and End Dates: 01/04/2021 - 04/25/2021
Course Reference Number: 31876
Semester Credit Hours: 1.0

II. Instructor Information

Professor: John R Antonelli
Email: antonell@nova.edu
Office Hours: Wednesday 9:00 am-11:00 am

III. Class Schedule and Location

Day	Date	Time	Location	Building/Room
	01/04/2021 - 04/25/2021		Ft Lauderdale/Davie Campus	-

IV. Course Description

This lecture course presents the theory and principles of fixed prosthodontics and its role in the overall treatment of the patient. This course, in conjunction with the laboratory course, provides a foundation for students to use the knowledge and techniques needed in clinical applications.

V. Course Objectives / Learning Outcomes

Course Learning Outcomes

At the completion of this course, the student will be able to: 1. Develop knowledge of the indications and contraindications for selecting a specific restorative modality for the restoration of individual teeth, including: diagnosis, prognosis, treatment planning, and treatment for indirect restorative and fixed prosthodontic procedures. 2. Develop knowledge of the preparation of teeth for indirect restorations, including appropriate tooth reduction parameters and finish line designs. 3. Develop knowledge of the rationale for and fabrication of provisional restorations, and multiple techniques for fabricating, contouring, fitting, and polishing of biologically, esthetically and functionally sound provisional restorations. 4. Develop knowledge for making and assessing preliminary and final impressions. 5. Develop knowledge for making and assessing diagnostic casts, working casts, and for preparing dies. 6. Develop knowledge of the methods and instruments used for obtaining interocclusal records, and articulating diagnostic and working casts. 7. Develop knowledge for fabricating porcelain--metal restorations, including: preparing teeth; making impressions; designing and fabricating working casts, wax substructure designs for porcelain bearing surfaces; and, selectively adjusting occlusion. 8. Develop knowledge in the utilization of provisional cements for luting provisional restorations to teeth. 9. Develop knowledge in the application of dental materials, including impression materials, waxes, acrylics, alloys, ceramics, and polishing materials.

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:

Related Competencies (as defined by educational outcomes):

4. Graduates must be competent in health promotion and disease prevention, including caries management.

[CODA Predoctoral Standard 2-24(d)]

Formative: Assessed laboratory projects - independent preclinical performance assessments (IPPAs).

Summative: Quizzes; practical examinations.

6. Graduates must be competent in the restoration of teeth.

[CODA Predoctoral Standard 2-24(f)]

Formative: Assessed laboratory projects-independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations; **7. Graduates must be competent in communicating and managing dental laboratory procedures in support of patient care.**

[CODA Predoctoral Standard 2-24(g)]

Formative: Assessed laboratory projects - independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations.

8. Graduates must be competent in the replacement of teeth including fixed, removable and dental implant prosthodontic therapies.

[CODA Predoctoral Standard 2-24(h)]

Formative: Assessed laboratory projects - independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations.

15. Graduates must be competent in the evaluation of the outcomes of treatment, recall strategies, and prognosis. [CODA Predoctoral Standard 2-24(o)]

Formative: Assessed laboratory projects - independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations.

26. Graduates must be competent in the use of critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.

[CODA Predoctoral Standard 2-10]

Formative: Assessed laboratory projects.- independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations

27. Graduates must demonstrate competence in the ability to self-assess, including the development of professional competencies and the demonstration of professional values and capacities associated with self-directed, lifelong learning.

[CODA Predoctoral Standard 2-11]

Formative: Assessed laboratory projects-independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations

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: Assessed laboratory projects-independent preclinical performance assessments (IPPAs)

Summative: Quizzes; practical examinations

- 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

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. FK1-1: Apply knowledge of the structure and function of the normal cell and basic types of tissues comprising the human body. (Encompasses Gross and Head and Neck Anatomy, General and Oral Histology, Dental Anatomy, Occlusion, TMJ, etc.).

FK3: Apply knowledge of physics and chemistry to explain the characteristics and use of technologies and materials used in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK3-2: Apply knowledge of the principles of chemistry to understand the properties and performance of dental materials and their interaction with oral structures in health and disease. (Encompasses Dental Material Sciences, Biomaterials, etc.).

FK7: Apply knowledge of the biology of microorganisms in physiology and pathology in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK10: Apply quantitative knowledge, critical thinking, and informatics tools in the prevention, diagnosis, and management of oral disease and the promotion and maintenance of oral health.

FK10-5: Apply elements of the scientific process, such as inference, critical analysis of research design, and appreciation of the difference between association and causation, to interpret the findings, applications, and limitations of observational and experimental research in clinical decision-making using original research articles as well as review articles. (Encompasses Evidence-Based Dentistry, Applied Research, etc.).

VI. Materials and Resources

Course Required Texts and Materials:

Required Textbook:

See syllabus for lecture course CDM-2260

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:

Supplemental Readings:

See syllabus for lecture course CDM-2260

- 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:

Academic Calendar 2020-21

<u>Session #</u>	<u>Date</u>	<u>Topic</u>	<u>Assignment</u>	<u>Content Outline</u>
1 restoration 3-X-5	Nov 12	Framework	R: 521-530; 713-734	Fabricate prov
2 prov # 20	Nov 19	Design for FPDs Dr. Antonelli Fabricating Block	Review article 5	Fabricate block
3 & create core build-up	Jan 7, 2021	Prov Restorations Dr. Antonelli Rest of Endo	R: 278-315	Bond fiber post
4 pattern for cast metal post	Jan 14	Treated Teeth 1 Dr. Antonelli Rest of Endo	R: 278-315 (review)	Fabricate acrylic
5 ceramic crown; provisionalize with crown & Revotek LC	Jan 21	Treated Teeth 2 Dr. Antonelli Polycarbonate Provisional Crowns Dr. S. Siegel	R: 404-409; 425-429 & Revotek LC	Prep # 9 for all- polycarbonate
6 #s 19-X-21	Jan 28	Sequencing in the Prosthodontic Treatment Plan Dr. S. Siegel	R: 70-90	Provisionalize
7 provisional FPD and connect and realign sections	Feb 4	The Solder Index intraorally to make an acrylic-plaster solder index	R: 713-734; 453- 455 Dr. Antonelli	Section any
8 vacuum stent to provisionalize 29-X-3; prepare.#s 29 & 31 for a 3-unit FPD	Feb 11	Selective Occlusal	R: 92-98 Dr. Antonelli	Fabricate
9 #s 29-X-31	Feb 18	Occlusion 2020-21 Dr. Antonelli		Provisionalize
10	Feb 25	FINAL WRITTEN EXAM		FINAL

PRACTICAL EXAM

R: Contemporary Fixed Prosthodontics, Rosenstiel et al. 5th Edition.

Publication # 1: Antonelli J, Hottel TL, Siegel SC, Darnell L. "The Acrylic Transfer Coping Technique for Making Accurate Interocclusal Records." *J Tenn Dent Assoc* 91(2):17-23.

Publication # 2: Goodacre CJ, Campagni WV, Aquilino SA. "Tooth Preparations for complete crowns: An art form based on scientific principles." *The J Prosthet Dent* 85(4):363-376.

Publication # 3: Ishikiriyama A et al. (1981). "Influence of some factors on the fit of cemented crowns." *The Journal of Prosthetic Dentistry* 45(4):400-404.

Publication # 4: Antonelli J, Hottel TL, Siegel SC, Brandt R, and Silva G. "The occlusal guard: a simplified technique for fabrication and equilibration." *Gen Dent* 61(3):49-54.

Publication # 5: Patras M et al. (2012). "Management of Provisional Restorations' Deficiencies: A Literature Review." *J Esthet Restor Dent* 24:26-39.

Publication # 6: Antonelli J, Hottel TL, Siegel SC, Romer MA. "A resin acrylic and plaster solder index for realigning an ill-fitting fixed partial denture framework." *Gen Dent* 57(6):637-643.

Topic Outline:

The laboratory course should expand students' knowledge of fixed partial dental prostheses (FPDPs) by exploring the framework design of FPDPs and the parameters of pontic designs. Additional techniques for fabricating provisional FPDPs will be examined to prepare students for what they will encounter when they transition into the predoctoral clinics. The restoration of endodontically treated teeth will be discussed in great detail, including the importance of ferrule and ferrule effect. Students will receive hands-on experience restoring acrylic simulations of endodontically treated teeth by fabricating both acrylic post patterns for custom cast metal posts and by restoring endodontically treated teeth with bonded fiber posts and composite core build-ups. Students will gain experiences restoring prepared teeth with polycarbonate prefabricated crowns and with light-cured composites. Students will be introduced to the concept of sequencing prosthodontics in the comprehensive care treatment plan. One half session might be devoted to demonstrating for students how provisional restorations are milled with CAD/CAM technology (depends on scheduling and availability of CAD/CAM instruments and faculty.) Students should gain hands-on experience with cementation of provisional crowns, based on current literature. A technique for addressing ill-fitting FPD frameworks will be introduced. Finally, the importance of making evidence-based decisions will be stressed throughout all fixed prosthodontics courses.

"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

See Academic Calendar posted in Canvas.

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:

EvaluationCriteria/Methods:

LABORATORY-CDM-2270

All LaboratoryProjects _____ 65% *

FinalPractical Exam _____ 35%

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:

Letter Grade.

Final course grade will be a numerical grade initially, which will appear on the transcript as a letter grade (based on the rubric below).

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.