



CDM 2070 - Fixed Prosthodontics Lecture I

I. Course Information

Course: CDM 2070 - Fixed Prosthodontics Lecture I
Semester and Year: Fall 2021
Course Start and End Dates: 07/26/2021 - 12/12/2021
Course Reference Number: 23988
Semester Credit Hours: 2.0
Building and Room: HPD-Assembly I Building - 2106JONA

II. Instructor Information

Professor: John R Antonelli
Email: antonell@nova.edu
Office Hours:
 Please contact Dr. Antonelli by email to request an appointment.

III. Class Schedule and Location

Day	Date	Time	Location	Building/Room
R	07/29/2021 - 08/12/2021	8:10 AM - 9:59 AM	Ft Lauderdale/Davie Campus	HPD-Assembly I Building- 2106JONA
R	08/19/2021 - 11/18/2021	8:10 AM - 9:59 AM	Ft Lauderdale/Davie Campus	HPD-Assembly I Building- 2101TERY
R	12/02/2021 - 12/09/2021	8:10 AM - 9:59 AM	Ft Lauderdale/Davie Campus	HPD-Assembly I Building- 2101TERY

IV. Course Description

This lecture course presents the theory and principles of fixed prosthodontics and its role in the overall treatment of patients. This course, in conjunction with the laboratory course, provides a foundation for students to utilize 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 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 fabrication, 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, master casts, and for preparing dies. 6. Develop knowledge of the methods and instruments used for obtaining interocclusal records, and articulating diagnostic and master casts.

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7. Develop knowledge for fabricating porcelain-metal restorations, including: preparing teeth; impressions; designing and fabricating master casts; waxing substructure designs for porcelainbearing surfaces; and, selectively adjusting occlusion. 8. Develop knowledge for fabricating and adjusting occlusal guards for the protection of porcelain restorations and elimination of potentially harmful occlusal interferences. 9. Develop knowledge in the utilization of provisional cements for luting provisional restorations to teeth. 10. Develop knowledge in the application of dental materials, including impression materials, waxes, acrylics, alloys 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:

4. Graduates must be competent in health promotion and disease prevention, including caries management. (CODA 2-24d) Summative: Quizzes; practical examinations; independent preclinical performance assessments (IPPAs); assessed laboratory projects. Formative: Final practical examinations, final written (case-based type questions) examination

6. Graduates must be competent in the restoration of teeth. (CODA 2-24f) Summative: Quizzes; practical examinations; IPPAs; assessed laboratory projects. Formative: Final practical examination

7. Graduates must be competent in communicating and managing dental laboratory procedures in support of patient care. (CODA 2-24g) Formative: Quizzes; written examinations; Summative: IPPAs; assessed laboratory projects.

8. Graduates must be competent in the replacement of teeth including fixed, removable and dental implant prosthodontic therapies. (CODA 2-24h) Formative: Quizzes, self-assessment laboratory projects
Summative: practical examinations; IPPAs

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 2-10)
Summative: Final written examination Formative: Quizzes, student self-assessments, analysis of articles in the dental literature

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, life-long learning. (CODA 2-11) Formative: Self-assessments of laboratory projects, student-faculty interactions Summative: Quizzes, IPPAs., final written and 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 2-22) Formative: Student-faculty interactions, quizzes, critical reading of assigned dental literature. Summative: Final written and 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.).

FK1-7: Apply knowledge of biological systems and their interactions to explain how the human body functions in health and disease. (Encompasses Physiology, General and Systems Pathology, 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.

FK7-2: Apply the principles of epidemiology to achieving and maintaining the oral health of communities and individuals. (Encompasses Epidemiology, Public Health, Preventive Medicine, Preventive Dentistry, etc.).

VI. Materials and Resources

Course Required Texts and Materials:

1. Contemporary Fixed Prosthodontics, 5th Edition; Rosenstiel, Land and Fujimoto, Mosby. ISBN # 978-0-323-08011-8
2. Fundamentals of Tooth Preparations for Cast Metal and Porcelain Restorations, 2nd Edition; Shillingburg, Jacobi, Brackett, Quintessence, ISBN # 0-86715-157-9
3. Functional Occlusion: From TMJ to Smile Design, 2007; Dawson, Mosby, ISBN # 978-0-3233-03371-8

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:

1. Management of Temporomandibular Disorders and Occlusion; 7th Edition, Okeson, Mosby, ISBN # 978-0-323-08220-4
2. Functional Occlusion: From TMJ to Smile Design, Peter E. Dawson, Mosby. 2007. ISBN # 13: 978-0-323-03371-8 and 10: 0-323-03371-7

- 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:

Session #	Date	Topics (Lecture)	Assignments (Reading)	Projects (Laboratory)

1	Aug 5	Custom Tray Fabrication Dr. J. Antonelli	R: 382-399	Use VLC tray material to fabricate custom tray to impress #s 30 & 31 (a self-assessment exercise); prepare #s 30 & 31 for FGCs HW -Make vacuum stent to provisionalize # 30; finish and polish custom tray
2	Aug 12	Impression Making; Tissue Management Dr. J. Antonelli	R: 367-382 Video in Canvas-Tissue Management for Impression Making	Make provisional restoration # 30; make final PVS impression #s 30 & 31. HW - Pour final PVS impression in Resin Rock
3	Aug 19	Master Cast Fabrication Dr. J. Antonelli	R: 457-477	Fabricate master cast HW - Mount a full arch maxillary cast for Aug. 27 exercise
4	Aug 26	Master Cast Articulation; Sectioning the Master Cast Dr. J. Antonelli	Read publication # 1 in Canvas View DVD of transfer coping technique in Canvas	Fabricate coping bite registration to articulate master cast; section master cast; make vacuum stent to provisionalize # 8; begin making custom tray to impress # 8 on Sept. 10 HW - Complete custom tray to impress # 8
5	Sept 2	Die Trimming Dr. J. Antonelli	Read publication # 2 R: 474 View U-tube video (Link in Canvas)	Prepare tooth # 8 for PFM crown; make provisional restoration # 8; trim dies # 30 & 31 on master cast
7	Sept 9	Cementation of Provisional Restorations Dr. J. Antonelli	R: 401-409; 774-790 PowerPoint: Repairing Provisional Restorations Read publication # 3	Make final PVS impression # 8; make vacuum-formed stent to provisionalize # 6; begin preparation # 6 for PFM crown

8	Sept 16	Substructure Design for Anterior PFM crowns- Restoring # 8 Dr. J. Antonelli	R: 521-530; 541-543 View E-Crowning Video	Complete tooth preparation # 6 for PFM crown; cement provisional # 6 ; HW -mount <u>equilibrated</u> max & mand full-arch casts; make custom anterior guide table
9	Sept 23	Occlusal Guards Dr. J. Antonelli	R: 99-115 Read publication # 4	Fabricate wax pattern for maxillary occlusal guard. HW -Pour diagnostic casts (maxillary w/o # 4 & 7 and mandibular w/o # 20); mount casts in MIP in Whip Mix articulator
10	Sept 30	Introduction to Fixed Partial Dentures (FPDs) Dr. J. Antonelli	-	Wax tooth # 7 on mounted diagnostic cast w/o teeth #s 4 & 7; fabricate duplicate cast; make vacuum-formed stent (extend stent from # 5 to # 9)
11	Oct 7	The Direct-Indirect Method for Fabricating Provisional Fixed Partial Dentures (6-X-8) Dr. J. Antonelli	R: 411-424 Read publication # 5	Prepare minimal tooth preparations for #s 6 & 8 on duplicate cast; fabricate shell provisional FPD 6-X-8. HW -Complete shell provisional 6-X-8
12	Oct 14	Preparation of Anterior Teeth for FPDs (6-X-8) & Pontic Design Dr. J. Antonelli	R: 222-235; 546-574	Prepare tyodont teeth #s 6 & 8 for PFM FPD; reline shell, finish & polish provisional restoration
13	Oct 21	“Reading” the Final Impression; Master Cast Fabrication (not a lab exercise) Dr. J. Antonelli	R: 367-382 (review)	Make vacuum stent to provisionalize #s 3-X-5; prepare #s 3 & 5 for all-metal/PFM FPD for Nov 12 exercise
14	Oct 28		Final Written and Practical Exams	
	Nov 4	Tooth Preparation for Posterior FPDs (All-metal-PFM) Dr. J. Antonelli	R: 169-206 (review article # 2)	Prepare <u>new</u> #s 20 & 22 for PFM FPD

15			-	FINAL PRACTICAL EXAMINATION
16	Nov 11	Framework Designs for FPDs Dr. J. Antonelli	R: 521-530; 713-734	Fabricate provisional restoration 3-X-5 (with modified ridge-lap pontic)
17	Nov 18	Fabricating Block Provisional Restorations Dr. J. Antonelli	Review publication # 5	Fabricate block provisional restoration # 20
18	Jan 6, 2021 Start of Winter Semester	Restoration of Endodontically Treated Teeth – Part 1 Dr. J. Antonelli	R: 278-315 View video in Canvas	Bond prefabricated fiber post and create core build-up for acrylic molar (use ParaBond & ParaCore)
19	Jan 13	Restoration of Endodontically Treated Teeth – Part 2 Dr. J. Antonelli	R: 278-315 (review)	Fabricate acrylic resin pattern for cast gold post-core for acrylic incisor; HW – Fabricate vacuum stent to provisionalize tooth # 9
20	Jan 20	Polycarbonate Prefabricated & Revotek LC Provisional Crowns Dr. S. Siegel	R: 404-409; 425-429	Prepare # 9 for all-ceramic crown; provisionalize with polycarbonate & Revotek LC crowns. HW -prepare vacuum stent to provisionalize 19-X-21; prepare typodont teeth #s 19 & 21 for PFM FPD
21	Jan 27	Sequencing in the Prosthodontic Treatment Plan Dr. S. Siegel	R: 70-90	Provisionalize #s 19-X-21 (modified ridge-lap pontic).
22	Feb 3	The Solder Index Dr. J. Antonelli	R: 453-455; 713-734 Read publication # 6	Section any provisional 3-unit FPD at a connector and realign the sections intraorally to make an acrylic-plaster solder index
	Feb 10	Selective Occlusal Adjustment Dr. J. Antonelli		Fabricate vacuum-formed stent to provisionalize 29-X-31; prepare typodont teeth #s 29 & 31 for a 3-unit FPD

	Feb 17	Occlusion 2021-22-- What Do We Believe; What Do We Do? Dr. J. Antonelli	-	Provisionalize #s 29-X-31 (modified ridge-lap pontic)
	Feb 24	Final Written & Practical Exams		

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“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

Homework assignments are listed in the Academic Calendar (posted in Canvas). It is expected that students will stay current with all reading assignments listed in the Academic Calendar--Lectures, Reading Assignments, Laboratory & Self-Assessment Exercises,, Fall-Winter 2021-22.

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:

Grading Policy (F to A scale based on the rubric below):

Quizzes.....65%

Final exam (comprehensive)....35%

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The following rubrics will be used to examine students' self-assessments of completed laboratory projects.

Copies will be provided to students in advance of the laboratory sessions.1. Tooth preparations for PFM fixed partial denture restoration 6-X-8

2. Fabrication of a custom impression tray

3. Die trimming

4. Final polyvinyl siloxane impression - tooth # 8

5. Master cast fabrication - with removable dies #s 30 and 31

6. Tooth preparation for PFM crown # 8

7. Provisional restoration 19-X-21

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 (F to A, based on 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
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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/Polices%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 clinicweeks. • 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.