DEN6408C: Preclinical Operative Dentistry III
Summer 2021

Course Description:

I. General Information
Course Director: Andre Figueiredo Reis
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Phone: (352) 273-8480
Course Credits: 3
Semester: Summer
Office Hours: Mondays, Wednesdays and Fridays from 12:30 to 1:30 PM.

II. Course Goals
This course is designed to teach the student the principles and techniques used to restore tooth structure damaged by caries, fracture or trauma, with direct and indirect restorative materials. It will build on the knowledge and techniques learned from previous operative courses and dental anatomy. The course will introduce variations based on the extent of the lesion, the restorative materials selected and functional and/or esthetic requirements. All dental

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Support Staff
Name Phone Email Role in the course
Elaina Buono (352) 273-5850 ebuono@dental.ufl.edu TA / Grade Administrator

Prerequisite courses:
Passing the following courses is a prerequisite for DEN6408C:
DEN5404C
DEN5405C
DEN6407C
materials used in operative procedures will be reviewed with emphasis on factors affecting their required, final clinical performance. Procedures will be performed in a simulated environment on a typodont, which represents actual clinical situations. This course specifically teaches the principles and procedures necessary to treat the results of large carious lesions and dental fractures by teaching case selection and treatment options with indirect esthetic inlays and onlays and direct resin based composite restorations. The course will include the diagnosis and treatment of esthetic procedures such as direct and indirect veneers, diastema closures, composite layering and teeth whitening.

III. Course Overview
Students will utilize lectures, course materials, problem-based and case-based scenarios and laboratory skills practice to restore tooth surfaces with direct and indirect restorative materials.

Successful completion of this course is required before any student is permitted to provide patient care in the TEAMs Clinics (DMD clinical courses), clinical rotations involving patient care, offsite rotations that require providing clinical patient care, and volunteer opportunities involving direct provision of patient care. Students may be permitted to assist and take radiographs with authorization from the Associate Dean for Clinical Affairs and Quality Assurance.

IV. Course Outline

1. Esthetic Principles
2. Teeth Whitening
3. Class IV Composite Restorations/ Composite Layering
4. Diastema Closure
5. Direct Composite Veneers
6. Porcelain Veneers
7. Esthetic Inlay/Onlays
8. CAD/CAM Inlay/Onlays - scan and design
9. Resin Cementation

V. Course Material

Provided reading assignment excerpts from:

REMINDER

In your reading, you will come across different methods of instrumentation used in cavity design and various restorative procedures. You are encouraged to be aware of variations but for the purpose of this course, and at this stage of your training you should follow the specific techniques presented, practiced and/or demonstrated during the year by your instructors.

VI. Course Objectives

Through lectures, problem-based learning, case based, laboratory and self-study students will be able to demonstrate the following objectives. Whenever we use the terms "explain," "describe," "list", or "discuss," we expect you to be able to do so in writing or orally in the simulation laboratory. In other words, we expect you to be able to demonstrate in many different ways that you have learned the foundation knowledge and decision making skills and apply them to the practice of dentistry:
1. Describe the principles of esthetic dentistry
2. Describe diagnosis and treatment of esthetic cases
3. Describe diagnosis and treatment of teeth whitening
4. Demonstrate the ability to prepare and restore Class IV composites
5. Describe the techniques and steps involved in diastema closures
6. Demonstrate the ability to restore direct composite veneers
7. Demonstrate the ability to prepare and restore porcelain veneers
8. Diagnosis and treatment of indirect esthetic inlay/onlay restoration.
   1. Explain the indications and contraindications
   2. Explain the advantages and disadvantages
   3. Explain the principles of cavity preparation design
   4. Demonstrate the ability to prepare and restore teeth with esthetic indirect inlay/onlays.
9. Describe the techniques and steps involved with the E4D CAD/CAM system
10. Demonstrate the ability to scan, design, mill and cement an E4D CAD/CAM restoration
11. Describe the indications and steps for the use of resin cements

VII. Course Competencies:

This course teaches to the following competencies in the "Competencies for the New Dental Graduate".
Domain I: Critical Thinking
1: Critical Thinking: Use critical thinking and problem-solving, including their use in the comprehensive care of patients, scientific inquiry and research methodology.
2: Evidence-Based Patient Care: Access, critically appraise, apply and communicate scientific and lay literature as it relates to providing evidence-based patient care.
Domain VI: Patient Care- B. Establishment and Maintenance of Oral Health
17. Provide oral health care within the scope of general dentistry to include restoration of teeth.
23: Provide oral health care within the scope of general dentistry to include malocclusion and space management.
VIII. Evaluation

Evaluation of student performance will consist of:

1) Written Examinations and Quizzes
2) Psychomotor exams
3) Projects

Written Examinations

There are a total of two written examinations. These exams will cover Dental Anatomy, Operative Dentistry I, II and III given up to the respective exam date. Students are expected to be able to choose correct alternatives from multiple choice or true-false questions or to supply short answers/paragraph to written questions and questions posed concerning laboratory models and drawings.

Written Quizzes

Quizzes related to Operative Dentistry I, II and III are to be expected and will cover the assigned reading for the day plus any material related to the topic at hand which has been previously covered in lecture or in the laboratory. Quizzes will last approximately 10 minutes. The quizzes may be scheduled during the lecture or SimLab sessions of this course. The quiz with the lowest score will be dropped from each student’s accumulated quiz total when determining course grades. If a student misses a class for any reason, that quiz will be the one dropped.

Psychomotor Examinations

Psychomotor evaluations will consist of either preparation of teeth and/or restorations a combination of both, or a stationed examination. Four psychomotor exams are scheduled in this course. These competency exams will require tooth preparations and/or restorations using resin-based composite. These exams will be evaluated to determine if psychomotor competency has been achieved and the scores of these exams will be included in determining the final course grade. Failure to complete the assigned psychomotor procedure(s) on the proper tooth will result in a failing grade for that test. The grade of each psychomotor exam will be determined by the average of points received, which will be converted into percentages as determined by the Operative Division Psychomotor Grade Scale. An orderly decision-making process evaluates student performance. Procedural items are scored 4, 3, 2, or 1 against defined criteria.

Psychomotor Grade Scale. Student performance is evaluated by an orderly decision-making process. Procedural items are scored 4, 3, 2, or 1 against defined criteria.

- A 4 indicates that the criteria were met at a excellence level
- A 3 indicates that the criteria were met at an acceptable level
- A 2 indicates that modifications are necessary to achieve an acceptable level
- A 1 indicates that the outcome was measured to be at an unacceptable level

For each criterion an evaluative modifier (+) can be assigned to a 1, 2, or 3 grade to indicate that the student identified an error prior to faculty evaluation. Proper terminology and specific locations of all errors must be noted by the student in writing. General non-specific statements will not justify a (+) modifier.
A “1” or "1+" score on any of the criteria on a psychomotor exam will result in a failing grade. The percentage assigned is 65% or the actual percentage score, whichever is lower when a score of 1 is given. The percentage assigned is 70% or the actual score, whichever is lower when a score of 1+ is given.

Points are calculated as follows:

- 4 = 4 points
- 3+ = 3.25 points
- 3 = 3 points
- 2+ = 2.25 points
- 2 = 2 points
- 1+ = 0.25 point
- 1 = 0 points

A score of 2.5 is considered a passing score and equals 72%.

**Students who fail a psychomotor exam are required to participate in a reassessment process at the end of the course.** The reassessment will not change the previous grade obtained in the psychomotor exam. **Reassessment is required since students are expected to complete all of the restorations taught in this course while providing patient care. It is essential that the skill be demonstrated at an acceptable level before advancing to the next course and and before providing patient care.**

**Daily Laboratory Formative Feedback.** Daily projects will be assessed by the student first and then by the faculty. The intent is to teach the student to self-assess their work accurately in order to help them identify gaps in skill and/or knowledge and target areas that need improvement.

**Assigning Grades**
The final course grade will be determined based on the following:

1. **Didactic component** - 45% (26.66% written exams + 13.34% digital project + 5% quizzes)
   - Exam 1: 13.33%
   - Exam 2: 13.33%
   - E4D CAD/CAM Restoration Project (scan, design and mill a restoration): 13.34%
   - Quizzes: 5%
2. **Psychomotor component** - 55% (psychomotor exams)
   - Psychomotor Exam 1: Class IV Restoration – 13.75%
   - Psychomotor Exam 2: Composite Veneer Restoration – 13.75%
   - Psychomotor Exam 3: Ceramic Veneer Prep – 13.75%
   - Psychomotor Exam 4: Onlay Preparation – 13.75%
   - Final Grade - 100%

**Important: There will be no make-up quizzes. One quiz can be dropped.**

Missed written or psychomotor examinations will require a doctor’s note and if excused, the make-up exam will be either an essay or oral examination. The make-up examination must be scheduled within 2 business days of the missed exam or the student’s return to school. The highest attainable grade on a missed exam is an 85%.
Missed psychomotor examinations will require a doctor’s note and if excused, the make-up exam will be a similar to the scheduled examination but may include different teeth and/or surfaces. The make-up examination must be scheduled within 2 business days of the missed exam or the student’s return to school. The highest attainable grade on a missed exam is an 85%.

* In order to pass this course, the student must have a final grade of 72% or above. However, the didactic and psychomotor components must be passed independent of one another with a 72% or above. At least two of the four psychomotor exams must be passed with a score of 72% or above. If the student fails 3 psychomotor exams and the final grade is more than 72% it is still considered a failure for the psychomotor component. The grades for each component will be calculated based on the percentages given for each exam as listed above. Information concerning course failure and course remediation is listed below. Individual examinations are not remediated during the course due to the pace of the course and the demands of other courses.

Attendance, Adherence to the Dress Code and Professional Conduct are Mandatory. The following adjustments will be made to the final course grades:

**Attendance**
- 5% will be deducted from the final grade for each lecture or lab missed without an excused absence.
- 5% will be deducted from the final grade for every three unexcused instances of tardiness.
- 5% will be deducted from the final grade if the daily project sheet is not turned in to the course director by the due date established by the course director.

**Adherence to the Dress Code.** Students must adhere to the dress code as spelled out in the Pre-doctoral Student Handbook and Clinic Procedure Manual while enrolled in any course in the Department of Restorative Dental Sciences. It is applicable at ALL times including, lectures, exams, quizzes, and laboratory sessions. Failure to comply with the dress code will result in a reduction in your final course grade as follows:

- **1st Offense** - Student will be asked to leave the class and warned
- **2nd Offense** - Student will be asked to leave the class and a 5% reduction in your final course percentage will be imposed
- **3rd Offense** - Student will be asked to leave the class and an additional 5% (10% total for dress code) reduction in your final course percentage will be imposed
- **4th Offense** - Student will be asked to leave the class and an additional 5% (15% total for dress code) reduction in your final course percentage will be imposed
- **5th Offense** - Student will be issued an "E" grade in the course

**Professional Conduct.** The College of Dentistry expects all dental students to be professional in their dealings with patients, colleagues, faculty and staff. All students are expected to abide by the UF Code of Conduct [here](https://sccr.dso.ufl.edu/wp-content/uploads/sites/4/2020/12/Orange-Book-Web-Version-2020.pdf). The University principles address our respect for people and property, for fairness, for Laws
and Regulations, and for academic integrity. Nothing in this Regulation shall be interpreted to limit the constitutional or statutory rights of any Student, including but not limited to expressive rights protected by the First Amendment.

1. Respect for people and property. Students are encouraged both to conduct themselves in a manner that exemplifies respect for all people and property and to adhere to their personal values without imposing those on others.

2. Respect for fairness. Rules and established procedures are intended to ensure both fundamental fairness and an educational experience for Students and Student Organizations.

3. Respect for Laws and Regulations. Students are expected to follow all applicable Laws and Regulations.

4. Respect for academic integrity. Academic honesty and integrity are fundamental values of the University. Students commit to holding themselves and their peers to the high standard of honor required by the Student Honor Code. Any Student who becomes aware of a violation of the Student Honor Code is encouraged to report the violation to the appropriate University Official.

Students are expected to be prepared for all lecture and laboratory sessions. They are expected to complete self-assessment forms, follow all guidelines and instructions in the classroom, simulation laboratory, junior/senior laboratory, or during online sessions (which include dress code, use of iPods, headphones, etc.). Professional students are expected to attend all assigned sessions in an attempt to get the most out of every learning opportunity. This includes staying the entire session, working diligently during the lab session, etc.). Any student professional misconduct observed during lectures, exams, quizzes, and laboratory sessions will result in a **Professional Variance** (see Pre-doctoral Student Handbook), and reporting of the incident to the **Student Honor Code Administration**. Conduct issues are often accompanied by sanctions that are determined by the course director in conjunction with the department chair and the Dean of Students or their designee.

Students will receive a grade of 0 on a psychomotor exam for any of the following:

1. Changing or removing **any** teeth during or after a psychomotor examination. (Dental anatomy allows the student to take the tooth out while waxing but teeth cannot be changed or replaced during the exam.)
2. Working on the dentoform in any manner that is unnatural (such as upside down, placing the upper arch in the lower arch position and vice versa).
3. Not placing the dentoform on the cart immediately after the exam ends.
4. Working on the dentoform outside of the manikin for a manikin exam.
5. Missing a tooth or teeth adjacent to the exam tooth/teeth.
6. Remove the tooth/teeth or dentoform and leave the exam room with it/them.

Students will lose 50 points off on the psychomotor exam grade if they:

1. Prepare or restoring the wrong tooth.
2. Do not have all teeth in the dentoform.

*The grades for the final written exam, psychomotor exam, and final course grade will not be posted at the end of the semester, until 70% of students have completed the faculty evaluations.*

**Remediation.** Students failing the course will be awarded an "E" grade, referred to the Student Performance Evaluation Committee (SPEC), and be placed on academic probation. The student must meet
with the course director to develop a remediation plan within one week of the notification of the failing final grade. The remediation activities are at the discretion of the course director. Faculty are available to assist students as they prepare for this examination, but the responsibility for learning the material resides with the student. The time, place, content, and passing grade of the remediation program will be individualized for each student and arranged by the course director. Please note that remediation activities are often best completed during student break weeks in order to keep the student on track with other courses the following semester.

The highest grade attainable in a remediated course is a “D”. Students failing to satisfactorily complete the remediation program will maintain the “E” grade and will automatically be referred to SPEC. For more information refer to the Administrative Practices Section K: Remediation.

Please note that if the course director determines that the student failed the coursework to such an extent that remedial activities would be inadequate to attain an acceptable level of academic achievement in the course material, the course director can elect not to provide remediation.

IX. Grade Scale
Please note that there is no rounding in Canvas.

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<th>Maximum</th>
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X. Administrative Practices
Administrative practices for all UFCD courses are universally applied. Exceptions to or deviations from these practices are stated in the individual syllabi by the course director. When not individually stated in the syllabus, course administrative practices default to those identified under "Course Policies" on the DMD Student Website: https://dental.ufl.edu/education/dmd-program/course-policies/

For further information on any of the practices listed below, consult the UFCD Student Handbook and UF Attendance Policies, catalog.ufl.edu/UGRD/academic-regulations/attendance-

This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, the professor reserves the right to modify, supplement and make changes as the course needs arise.”