

OPER/FIXED CLINICAL EXAMINATIONS CLASS OF 2008

The following describes the criteria for determining the qualitative competency required for graduation in the area of Operative and Fixed Prosthodontics.

1. Clinical examinations on patients -- All clinical examinations must be passed with a grade of 68 or better. All examinations that are started will be recorded and will be counted toward the overall average.
 - a. 3 composites
 - b. 3 amalgams
 - c. 5 indirect cast type preparations including the impressions and provisionals. **Any students who average 80% or better on their first 4 indirect casting preparation examinations will be exempt from taking the 5th exam)**
 - d. 3 cementations of indirect cast restorations.

A student's overall average on their senior examinations must be 68% or better after dropping the two lowest scores.

2. Ten (10) graded Simulation Procedures and 3 practice experiences – All graded simulation procedures must be passed with a grade of 68 or better.
 - a. Participation in Simulation Examinations for Amalgam, Composite and Typodont in Trimester IX
 - b. Three (3) Amalgam preparations and three (3) Amalgam restorations
 - c. Two (2) Composite preparations and two (2) composite restorations
3. Mock Board – Amalgam and Composite for a patient or extracted teeth blocks. Each student must participate in at least one Mock Board.
4. Written Examinations – Must score at least a 68 % on the written examination

AMALGAM RESTORATIONS

This procedure may be done on any tooth requiring a Class II amalgam restoration provided one of the proximal surfaces to be treated is in contact with the adjacent tooth. Opposing occlusion is not necessary. A tooth with greater than minimal caries or requiring replacement of a defective restoration is acceptable for the exam.

CASTING PREPARATIONS

The five (5) casting preparations must be done on teeth requiring extra-coronal indirect cast restorations (Onlays, 3/4, 7/8, CVC or PFM). The teeth must be in occlusion and have at least one proximal contact. **All restorative material, bases, build-ups and caries will have to be removed as part of the examination. Also any bases and build-ups will need to be placed within the allotted time of the examination. *Prior basing or build-ups will be permitted for the first 2 examinations.*** Teeth with existing cast post and cores are not acceptable.

Abutments for fixed partial denture restorations are acceptable for these examinations. The FPD will have to be completed by the student taking the examination before examination credit will be assigned. The completed FPD will have to be evaluated by the section chair of Oper/Fixed (Dr. Harmatz) or his delegate.

CAST RESTORATION CEMENTATIONS

The three (3) indirect cast restorations to be cemented may be any extra-coronal restoration. **The student doing the cementation must have done the preparation and the daily evaluation form with all signatures must be presented at the time of the examination.** The tooth must be in occlusion and have at least one proximal contacting tooth.

COMPOSITE RESTORATIONS

The composite restorations may be a Class II, Class III, Class IV, Class V, diastema closure, or direct labial veneer. Very minimal facial, lingual or incisal restorations may not qualify for this exam. If in doubt the student should check with a faculty person who is designated to evaluate clinical examinations. Class

II, III and IV restorations must have a contacting proximal contact and the restoration must extend into the contact area to qualify for an exam.

ORGANIZATION

The examinations described above may be taken in any order you wish. Verify your treatment plan for appropriateness, proper sequencing, and periodontal status prior to the exam. You are encouraged to consult the examining faculty regarding case selection, preparation design, etc. prior to the date of your exam.

These examinations may only be taken in the designated area and with designated faculty. The designated faculty are listed for the designated area. Exams taken with un-designated faculty will not be counted as an exam.

During the examination each student is expected to be well organized and efficient. Each will be evaluated on your organization, efficiency and not violating the chain of cleanliness. To accomplish this each student will need to emphasize the following:

- a. Cassettes for the procedure have all of the burs, diamonds and instruments required for the procedure and that they are in good condition and sharp. As sterilization removes the sharp edge from the instruments, the instruments must be freshly sharpened to achieve a razor sharp edge at the proper angulation prior to the start evaluation for each procedure.
- b. Set up the cubicle prior to the examination. Verify that all equipment in the cubicle works properly. If the equipment is not functioning properly turn in a repair slip prior to the examination. If necessary, the student may need to transfer to a different cubicle.
- c. Have all required paper work examination evaluation sheets, daily work sheet, patient chart, current radiographs, study casts (mounted as required), and diagnostic wax up (when indicated) available prior to and during the examination.

TIME SCHEDULE

Morning session 8:00 AM to 12:00 PM

Afternoon session	1:00 PM to 5:00 PM
Evening session	6:00 PM to 9:00 PM (The maximum time for any procedure will be 3 hours and the student must be completed at 9:00pm.)

All examinations will start promptly at 8:00 AM, 1:00 PM or 6:00 PM with a brief pre-session (patient should not be seated in the dental chair). It is recommended that patients be scheduled 15 minutes prior to the examination to allow for the student to start the examination on time. Any student not at the pre-session will lose their chair to anyone on the wait list or walk-ins who are at the pre-session. Likewise, unoccupied chairs 15 minute past the start of the exam, e.g. patient no show, will also be made available.

All examinations must be completed within the allowed time limit. Failure to complete the procedure within the time limit or by the end of the session, whichever comes first will result in a grade of "0" or -5 for the portion(s) not completed and evaluated.

<u>PROCEDURE</u>	<u>TIME LIMIT</u>
Amalgam restorations	3 hours
Casting preparations	3 1/2 hours
Casting cementations	2 hours
"Small" composite	2 hours
"Extensive" composite	3 hours
The limit for a composite examination will be determined by the supervising faculty.	

ASSISTANCE

It is recommended that a student has an assistant when taking the examination. However, the assistant is not permitted to do any of the procedures. Assistants are also not allowed to provide any consultation during the exam. Please remember that inappropriate help by the assistant is unethical behavior. Should this be observed by the faculty, the exam will be terminated with a "0" grade and the case turned over to the ethics committee.

EVALUATION

Be familiar with the patient's medical conditions and medications and be prepared to discuss these with the examining instructors.

Each step will be evaluated according to the outline below. Please be familiar with the protocol so that you will sign-up for faculty observation occurs at the appropriate time and all that is expected is completed prior to the evaluation.

The percentage of the grade for each segment of the examination is indicated. The evaluations from the segments are then weighted resulting in a final score for that exam. Time permitting; the student may see the faculty evaluations at the end of the exam.

AMALGAM RESTORATIONS – 3 hour time limit

Steps to be evaluated: Examination evaluation form attached

1. Organization – 5%
2. Start - prior to administration of anesthetic. Describe the existing conditions and the proposed outline on the evaluation form and be prepared to discuss it with the instructor. Any situations that will require extensions beyond the minimal that are observable in the mouth or on the patient's casts should be described in detail before beginning the procedure. **The proposed outline must be carefully drawn with a pencil on an accurate stone cast (not the original diagnostic cast).** Additionally, all materials, supplies and instruments must be available prior to the examination.
3. Rubber dam*
4. Preparation 50%

Preparation with Minimal Depth

Completed Preparation

Preparation having caries and/or existing restorative material that does not extend deeper pulpally and/or axially than a minimal preparation should be completed prior to the preparation evaluation.

Extensions Beyond Minimal Outline Permission

If the preparation requires extension of the outline beyond the minimal, the extension should be agreed to by the examining faculty either before the preparation is started or during the preparation of the tooth. Then proceed to final preparation.

Preparation With Greater Than Minimal Depth

Prior to Caries Removal Evaluation

Preparations having caries and/or existing restorative material that extends deeper pulpally and/or axially than a minimal preparation **must** be seen prior to removing the caries or restorative material.

After caries removal – All caries and/or restorative material must be removed and observed prior to lining, basing or placing the restoration.

5. Completed preparation with proper pulpal protection (if indicated) – 50%
6. Finished carving with rubber dam in place - 45%
7. Completed restoration after rubber dam removal and occlusal adjustment within the time limit,**

If the final score is 68 or above and yet the final restoration has clinically unacceptable feature(s) (T or V in any category), it (they) must be corrected at the same or a subsequent appointment and the properly corrected restoration shown to an examining faculty before receiving credit for the examination.

CASTING PREPARATIONS – 3 ½ hour time limit

Steps to be evaluated: Examination evaluation form attached

1. Organization – 5%
2. Start - prior to administration of anesthetic. Describe the existing conditions and the proposed outline on the evaluation form and be prepared to discuss it with the examining faculty. Any situations that will require extensions beyond the minimal that are observable in the mouth or on the patient's casts should be described in detail before beginning the procedure. The proposed outline must be carefully drawn with a pencil on an accurate stone cast (not the original diagnostic cast). Additionally, all materials, supplies and instruments must be available prior to the examination. This should include two custom impression trays with proper occlusal stops and a form for making a provisional (putty or Ellman)
3. Rubber dam when indicated* (Caries clean out or removal of the old restoration (such as an amalgam) should be done with appropriate isolation, in most cases this will require the use of the rubber dam.
4. Preparation - 55%
 - a. Prior to caries removal: 2 options.
 1. When doing a CVC or extensive PVC such as a 7/8 crown, the caries and/or existing restorative material should be removed prior to tooth preparation. **The removal of caries and existing restorative materials are to be removed during the examination and not as daily work. If this is done before the examination it would disqualify the case from the examination.** The extensions should minimally circumscribe the caries and/or restorative material at the minimal pulpal or axial depth.

OR,

2. When doing preparations with internal retentive features such as onlays and 3/4 crowns, the occlusal isthmus and proximal box forms should be extended to minimally circumscribe caries and/or restorative material at **minimal pulpal and/or axial depth**. After achieving the appropriate extensions and minimal depth then authorization from the examining faculty should be requested prior to removal of the caries and/or restorative material that extends pulpally and/or axially.

If the preparation requires extension of the outline beyond the optimal, the extension should be agreed to by an examiner either before the preparation is started or during the preparation of the tooth.

- b. After caries removal
 - c. Completed preparation after proper basing or build-up, if indicated. **When placing a base or build-up proper isolation is required: a properly placed rubber dam is preferred unless placement is contra-indicated.** The completed preparation should be properly debrided and isolated for visual evaluation, i.e., tongue, cheek, and tissue displacement. The inability to evaluate the preparation visually will be reflected in the evaluations. **(The Staff Dental Assistants have been instructed not to assist with the isolation or gingival displacement. It is the responsibility of the student taking the examination to have proper isolation and tissue displacement.)**
 - d. **Bases and/or build-ups must be done as part of the examination.**
- 4. Provisional restoration prior to cementation - 30% - The provisional should be started prior to taking the final impression.
 - 5. Impression - 10%
 - 6. Provisional after cementation within the time limit of the exam. **

CAST RESTORATION CEMENTATIONS – Two (2) hour time limit

The student doing the cementation must have done the preparation and the daily evaluation form with all signatures must be presented at the time of the examination. The student must also fill out Green **Prior to Placement Form** in order to evaluate the restoration after receiving it from the laboratory and prior to appointing patient: there is a faculty signature required on this form.

Steps to be evaluated: Examination evaluation form attached

Prior to seating patient

- 1. *Organization – 5%*

2. Restoration evaluation on casts & dies – 15%

The restoration will be evaluated by a faculty person to verify it is acceptable (meets USC criteria with an R, S or M) in all categories. If it is acceptable then the student will receive 100% (15 points) credit. For esthetic restorations (PFMs), evaluation of the surface includes the verifying of the shade of the restoration using the shade tab used to select the shade. If the restoration is not acceptable it will need to be corrected and you will receive 0% (0 points) credit for this portion of the examination. If the restoration can be corrected during the examination the corrections should be made and the exam will continue. If the restoration has to be sent back to the lab for re-fabrication or modification the exam will be terminated with a grade of "0". **Therefore, it is highly recommended that the student carefully evaluates the restoration and makes the necessary modification(s) to make sure it is acceptable before bringing the patient in for the cementation appointment. (Consultation with the faculty giving the examination is encouraged at least one day prior to the examination leaving sufficient time to make indicated modifications)**

After seating patient

1. Prior to cementation - 80%. Evaluation of the restoration in the mouth. If **THE STUDENT** determine the restoration is not clinically acceptable prior to faculty evaluation the student may terminate the exam without any penalty (the exam will not count). This can only be done if the restoration evaluation on the casts and dies was acceptable. After a faculty evaluation has been requested, the student may no longer terminate the examination.
2. After cementation – Evaluate to ensure the casting is properly seated and all excess cement has been removed. **

To receive credit for the examination, the restoration must be cemented and be acceptable prior to dismissal of the patient.

COMPOSITE RESTORATIONS – 2 hours for a minimal restoration and 3 hours for a large restoration. The time limit will be determined by the faculty at the start of the exam and communicated to the student at that time.

Steps to be evaluated: Examination evaluation form attached

1. Organization – 5%
2. Start prior to administration of anesthetic. Describe the existing conditions and the proposed outline on the evaluation form and be prepared to discuss it with the instructor. Any situations that will require extensions beyond the minimal that are observable in the

mouth or on the patient's casts should be described in detail before beginning the procedure. The proposed outline must be carefully drawn with a pencil on an accurate stone cast (not the original diagnostic cast). Additionally, all materials, supplies and instruments must be available prior to the examination.

3. – 5% Material and Shade selection - Indicate to the instructor the material and shade(s) selected. When doing a highly esthetic restoration, do a mock, non-etched build up to approximate the proposed contours of the final restoration using the selected shade(s) and cure. If existing restoration and/or caries interfere with the student's ability to do the mock build up, the student should ask permission from the faculty to remove them to facilitate shade matching.
4. Rubber dam*
5. Preparation - 35% (20% for diastema closure)
 - a. Prior to caries removal
 - b. Caries removal
 - c. Final preparation, including pulpal protection if required.
6. Completed restoration with rubber dam in place - 55% (70% for diastema closure)
7. Occlusion & final contours with the rubber dam off. **

If the final score is 68 or above and yet the final restoration has clinically unacceptable features the restoration must be corrected at the same or a subsequent appointment and the restoration shown to an examining faculty before receiving credit for the examination. Examination will be held until corrections are made.

***Rubber Dam** - For all procedures the rubber dam must be acceptable when the faculty is asked to evaluate that step and it must remain functional during the procedure. One to five points may be deducted from the final exam score if the rubber dam is unacceptable at any point in the procedure. The rubber dam may be changed any time during the procedure if it should become unacceptable.

** If this step is unacceptable the faculty will deduct from 1 to 5 points, depending on the severity of the error, from the total score of the exam.

A copy of the examination evaluation will be available in the Group Practice Office within one week from the day of taking the exam. If the results are not received after one week please check with the personnel in Rm. 4368 to see the status of the examination.

SIMULATION EXAMINATIONS

The simulation examination will take place in the Sim-Lab on extracted teeth. An amalgam and composite preparation and an amalgam and composite restoration will be done on extracted teeth. It is recommended that each student collect intact extracted teeth prior to these examinations.

PREREQUISITE PROCEDURES – (this is required for the first examination in each of the four competency examinations)

Examinations may be taken in any order, as long as you do the following is done:

1. Complete a minimum of two comparable patient procedures before the examination and provide **Web-Based Clinical Accomplishment Report** to the faculty member evaluating the practice procedure. The faculty member will verify completion of prerequisite procedures and initial the space next to the student number on the “Pre-examination Preparation Requirements” form (page 11). It is the student’s responsibility to make sure the form is appropriately signed before the examination in order to receive credit for the examination.
2. Review all notes, manuals and teaching materials that relate to the procedure.
3. Prior to the examination, the student is required to review the selected case with an operative/fixed faculty person. **(Preferably, the faculty with whom the student will be taking the examination.)** The **Pre-examination Preparation Requirements Form** must be filled out and signed off by the faculty person at least the day prior to the examination. The student will need the patient’s chart, diagnostic casts and completed practice procedures, described below, when requesting an evaluation from the faculty. The **Pre-examination Preparation Requirements Form** must be available when requesting the start of the first examination of that type.

PRACTICE PROCEDURES

Each student is required to practice the procedure on an **extracted** tooth set up (block or manikin) to simulate the clinical situation that will be treated. A typodont tooth may be used for the casting and PFM preparation practice procedures.

All practice procedures must be completed, **self-evaluated** and evaluated by a clinical operative or fixed faculty, depending upon the examination to be taken, at least one day before the examination. All practice procedures must be evaluated at an acceptable level in all categories, or corrected and re-done until they are acceptable.

The following are the **practice procedures** required for each examination:

Amalgam - 1 class II preparation & 1 class II restoration, **separate teeth**

Cast prep - 1 preparation & 1 provisional

Composite - 1 preparation & 1 restoration, **separate teeth**

Cementation - No practice procedures required but sections 1, 2 and 3 must be completed and signed prior to the cementation examination.

**PRE-EXAMINATION PREPARATION REQUIREMENTS
OPERATIVE DENTISTRY & FIXED PROSTHODONTICS CLINICAL EXAMINATIONS**

Student Name _____ No. _____ Pre-req. Proc. (2) _____

Procedure _____ Tooth No. _____ Date of Exam _____

1. PATIENT RECORD REVIEWED

- Medical history reviewed and any treatment modifications discussed
- Student doing procedure is assigned to the patient
- Treatment plan complete and signed by the patient and Group Practice Director
- Periodontal treatment is complete or permission for limited treatment
- Procedure to be done in proper sequence (may be done out of sequence for exam if patient's oral health not jeopardized at the discretion of the supervising faculty)

2. RADIOGRAPHS AND PATIENT DIAGNOSTIC CASTS EVALUATED AND DESIGN OF RESTORATION DISCUSSED (Thoroughly discuss preparation design and restoration placement, then describe the restoration design below.)

3. SEQUENCE OF PROCEDURE REVIEWED (Outline the sequence of the procedure, including any materials required and a time frame to allow timely completion of the procedure.)

Steps 1-3 Completed to Acceptable Level _____
Faculty Signature

4. PRACTICE PREPARATIONS EVALUATED (Include student self-evaluation)
Comments:

Step 4 Completed to Acceptable Level _____
Faculty Signature

5. PRACTICE RESTORATIONS EVALUATED (Include student self-evaluation)
Comments:

Step 5 Completed to Acceptable Level _____
Faculty Signature

**COMPLETED FORM MUST BE PRESENTED AT THE TIME OF THE EXAMINATION.
PRACTICE PROCEDURES MUST BE EVALUATED A MINIMUM OF 24 HOURS BEFORE EXAM.**