December, 2006

MEMORANDUM

TO: SOPHOMORE DENTAL STUDENTS

FROM: James A. Gilles, M.S., D.D.S.
Course Director, Preclinical Endodontics

SUBJECT: Sophomore Endodontic Courses:
A. Endodontics (ENDO 6041)
B. PCL Endodontics (ENDO 6142)

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DEPARTMENT OF ENDODONTICS

EDUCATIONAL OBJECTIVES

Purpose and Philosophy:

The goal of the Department of Endodontics is to teach basic and current concepts of prevention, diagnosis and management of diseases of the pulp and related diseases of the periradicular tissues. This goal is achieved in three phases:

Phase I: (Sophomore Year)

The objective of phase one is to introduce the student, under simulated clinical conditions, to the skills necessary to perform successful root canal treatment of single and multirooted teeth. The didactic portion of this phase is presented by the use of lectures and video tapes which gives supportive information on the rationale and scope of endodontology, anatomy of the root canal system, coronal access, cleaning and shaping the root canal system, obturation of the root canal system, endodontic materials, diagnosis, treatment planning and the interrelationship of histopathology and microbiology with endodontology. Lectures are available on Blackboard. The endo manual is distributed in hard copy and is available in VitalSource Curriculum. An introduction to clinical Endodontics is presented in the lecture series.

The knowledge, skills and values learned in the preclinical endodontic didactic and laboratory courses are aimed at achieving UTHSCSA Dental School competencies 05-01: “Graduates must be competent in the management of dental emergencies.” 10-01: “Evaluate pulpal and periradicular tissues, arrive at a diagnosis and formulate a treatment plan.” 10-02: “Prevent and manage pulpal and periradicular disorders.” 10-03: “Evaluate outcomes of treatment and recognize the need for endodontic re-treatment or endodontic surgery. Values are a component of Professional Development and will be monitored for the duration of the course. If changes are needed they will be discussed with the student and progress noted.

The courses in Endodontics for the sophomore year consist of a didactic and a laboratory course. A final grade will be assigned for both the didactic and the laboratory phases. The courses require the following textbook and manual:

Principles and Practice of Endodontics – 3rd Edition by Walton and Torabinejad

Endodontics (manual) - Preclinical Section and Clinical Section
A. DIDACTIC COURSE (ENDO 6041)

The didactic course consists of thirteen lectures and two examinations. There will be a one-hour written Mid-Course examination based on the material presented in lectures, handouts and reading assignments for periods 1-7. There will be a written FINAL examination based on the material presented in lectures, handouts and reading assignments for periods 8-14.

The final didactic course grade will be computed by giving equal weight to both mid-course and final examinations, (i.e., each test will count 50% of the final grade).

Grading System: The final numeric grade will be converted to an alphabetic grade as follows:

- 90.00 - 100 A
- 80.00 - 89.99 B
- 70.00 - 79.99 C
- 66.00 - 69.99 D
- 0 - 65.99 F

Professional development is evaluated for this course. It is a pass/fail component which must be passed. It does not affect the letter grade for meeting the objectives for skills and knowledge.

Lectures are designed to give the information that you need to know to successfully complete the course and to prepare you for clinical endodontics. Attendance is critical to your understanding of the procedures to be performed in the laboratory exercises. Please be punctual, as late arrival can be disruptive to the class.

Missed Examinations

Students are required to notify Dr. Thomas’ office in the event of illness or emergency which would cause an absence from an examination. If a student has not contacted Dr. Thomas’ office, the course director is under no obligation to give a make up exam in which case the student receives a grade of “O”. Upon properly informing Dr. Thomas’ office prior to missing an examination for a reason deemed appropriate by the course director, the student may be permitted to take a one hour oral examination given by a panel of three faculty members, an essay type examination or another examination to be determined at the discretion of the course director. This policy is meant to prevent inadvertent unfair advantage to any student taking an examination at a time other than the rest of the class.

Remediation: For remediation of the didactic course, the student will review areas of deficiency from textbook, manuals, reading assignments, handouts and lectures given during the regular course, as well as any other assigned pertinent material. There will be one written examination at the end of a four-week period which will consist of 60 objective questions to be answered in a two-hour period.

B. LABORATORY COURSE (ENDO 6142)

The preclinical endodontic laboratory course is conducted concurrently with the lecture course and consists of both projects and practical examinations. Projects must be completed prior to taking the practical. The laboratory grade will be based on three periodic practical examinations and the final practical. The periodic practical exams will count 70% of the final laboratory course grade. The final practical will count 30% of the laboratory course grade. The final practical will involve performing coronal access, cleaning and shaping and obturation of a mandibular premolar. IT WILL BE ADVANTAGEOUS TO SELECT AN EXCELLENT MANDIBULAR PREMOLAR AND RETAIN IT FOR THE FINAL PRACTICAL.

During the first laboratory period you will select extracted teeth. The following are the minimum required teeth needed.

- 2 maxillary central incisors
- 1 maxillary cuspid
- 1 maxillary premolar (2 roots)
- 1 maxillary molar
- 1 mandibular central incisor
- 2 mandibular premolars
These teeth need to meet certain criteria in order to maximize learning in this course. In order to assist you in the selection process, the following selection criteria are included so you may begin to set aside good specimens for this course. Teeth should have:

a. Intact crown - free of caries and large restorations: This allows for proper coronal access based upon external tooth morphology.

b. Fully formed root apices - this allows for proper preparation of the apical third of the root canal.

c. Minimal root curvature: root curvatures are usually an indication of root canal curvatures. This adds a degree of complexity to root canal therapy that is not intended for this laboratory. This criterion does not have to be met for the two teeth which will be used for access only.

At the beginning of the course you will be making radiographs of these selected teeth to verify additional information concerning accessibility. It is, therefore, in your best interest to have as many good specimens of each required tooth as possible. Some will not be acceptable due to calcification of the root canal system as detected by radiograph. Maxillary and mandibular molars are routinely the most difficult to find, so begin saving them early.

Infection Control in Teaching Laboratories Using Extracted Teeth:

1. The teeth used for teaching purpose must be treated as potentially infectious to students and faculty and should be disinfected before use.

2. Extracted teeth should be handled with the same precautions as a biopsy specimen.

3. Teeth may be kept overnight in a 1:10 hypochlorite solution (1 part bleach, 9 parts water) to dissolve any adherent material. Keeping teeth in this solution longer will cause damage.

4. All extracted teeth should be immersed in 10% formalin for at least two weeks before they can be used in the laboratory. (Tale & White, J. Dent. Edu. 55:583-585).

5. Universal precautions should be followed in both clinical and preclinical settings. Persons handling extracted teeth should wear gloves. Personal protective equipment (e.g. surgical mask, laboratory gowns and eyewear with solid side shields) are necessary if debris and spatter generation are anticipated during the procedures.

6. Teeth should be disposed of after the procedures are completed in the same manner as other biopsy specimens (red bag).

7. Work surfaces and equipment should be cleaned and disinfected.

Grading System:

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<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A</td>
<td>3.50 – 4.00</td>
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<tr>
<td>B</td>
<td>3.00 – 3.49</td>
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<tr>
<td>C</td>
<td>2.21 – 2.99</td>
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<tr>
<td>D</td>
<td>2.00 – 2.20</td>
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<td>F</td>
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Attendance is required at each laboratory session. It is the responsibility of the student to notify the course director to obtain an excused absence if unable to attend any laboratory course session. If you are absent from a laboratory period, you must make up the period before continuing the course.

The laboratory course is designed so that work can be completed within the time allotted. Students are strongly discouraged from working outside of scheduled laboratory time without supervision. Check with your lab instructor if additional time is needed for projects.
Remediation: For remediation of the preclinical laboratory course, the student will be required to review the didactic material covering the areas of access, cleaning and shaping and obturation. A written essay examination consisting of five essay questions will be given in order to identify areas of weakness. Laboratory practice exercises will be given based on the areas of deficiency. A final practical examination will be given according to the individual's need.

The endodontic faculty looks forward to your participation in this preclinical course. You will find each of the faculty happy to share ideas and guidance in this laboratory course. They encourage you to ask questions and request demonstrations.

This memorandum is being sent to you early primarily so that you can begin selecting the necessary teeth. Please retain it with your endodontic course materials.

GOOD LUCK!

JAG/ht

Enclosure: Lecture schedule
Laboratory schedule