



**RIYADH COLLEGES OF DENTISTRY AND PHARMACY**  
**Postgraduate Dental Studies**

# **Master of Science in Dentistry** **&** ***Competency Certificate*** ***in Clinical Endodontics***

**(ACCORDING TO SAUDI COMMISSION FOR HEALTH SPECIALTIES REQUIREMENTS)**

**October 2008**



**Riyadh Colleges of Dentistry & Pharmacy  
Postgraduate Dental Studies**

**ENDODONTICS GRADUATE PROGRAM**

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**Curriculum & Clinical Requirements**

The shared basic science, biodental and general courses are:

**A**

- Cell Biology
- Genetics
- Anatomy & Physiology

**B**

- Oral Biology
- Oral Microbiology and Immunology
- Advanced Oral Maxillofacial Pathology
- Advanced Oral Maxillofacial Radiology
- Dental Biomaterials
- Applied Pharmacology in Dental Practice

**C**

- Applied Biostatistics
- Research Methods & Scientific Writing
- Communication Skills & Teaching Methods.

These courses are offered by all the programs. The courses have been described elsewhere. What follows is the description of endodontics specialty-specific courses.

## **D Endodontics Specialty Courses**

### *Endodontics Specialty Seminar Includes (text books, Topic Review) (Years 1, 2, 3)*

Throughout the three years of graduate studies, seminars will be held weekly to expose students to new endodontic textbooks (eg. *Pathways of the Pulp* by Cohen and Burns-Endodontic by Ingle, *Textbook and Color Atlas of Traumatic Injuries to the Teeth* by Andreasen J. and Andreasen F., *Surgical Endodontics* by Gutmann and Harrison, *Essential Endodontology (Prevention and treatment of apical periodontitis)* by Orstavik and Pittford, *Endodontology (Biological consideration in Endodontic procedure)* by Seltzer and *Principle and Practice of Endodontic* [Torbinjad and Walton]), current literature review, topic reviews as well as evaluation and analysis of published data.

### *Endodontics Specialty Clinics (Years 1, 2, 3)*

The specialty clinics offer the graduate students improved opportunity to make correct diagnosis, plan appropriate management and treatment of patients normally under the supervision of endodontic faculty and consultants. As the students acquire more skills, they will manage and treat in these clinics complicated cases, interdisciplinary cases and surgical endodontics.

### *Case Presentation (Years 2 & 3)*

On a weekly basis and with rostering of students, there will be clinicopathologic meetings where discussion of diagnostic problems, treatment planning, case presentations will be held. Follow-up review will also be held in this seminar.

### *Pulp Biology (Year 1)*

This course covers the biologic basis of pulp therapy based on classic and current scientific literature, embryology, physiology, and microanatomy of the dental pulp and related structures. The course also explores prevention, etiology, diagnosis and treatment using scientific principles. Students are taught biologic rationale for treatment from extensive literature review.

The course reviews the normal and diseased pulp and its relationship to periapical tissues. Emphasis is placed on pulpal, neural and vascular supply; pulpal defense mechanisms; injury, aging, and retrogressive changes and pulp's response, healing and repair potential of periapical tissues; and histopathology of periapical lesions. Clinical sign and symptoms are correlated with histopathology whenever possible. Pulpal reactions to irritants are emphasized along with associated diagnostic and therapeutic procedures.

### *Pre-Clinical Endodontics (Year 1)*

The pre-clinical endodontics is offered during the first three months of the program. The course includes working on extracted teeth in the phantom laboratory and to be supervised by a consultant. In addition they have to attend the consultant's clinic before the resident will start his/her clinic. The course has a laboratory/lecture format. It is designed to develop proficiency in a variety of endodontic instrumentation and obturation techniques before the candidate applies them in the clinical session. The following lectures are going to be given: Clinical introduction, Access opening and working length determination, Instrumentation techniques, Obturation, Endodontic re-treatment and Problem solving.

*Classic Literature Review in Endodontics Topics I to VI (Years 1,2 & 3)*

These courses are offered as 3-hour seminars weekly for reviewing the literature in Endodontics clinical dentistry. List of published papers will be given to students in the beginning of each semester. Students will be required to read, summarize and present for class discussion, the literature assigned by the course director.

It is aimed to review previous publications on different topics in Endodontics dentistry. In addition, updated literature will also be included to increase the knowledge of the students.

**E** **Research/ Thesis (Summer 2, Year 3)**

The common compulsory core course of “Research Methods and Scientific Writing” prepares the graduate student for a novel and meaningful research on a chosen and approved topic which will culminate in a Thesis to be presented and defended in an examination by a panel of examiners. After a student has an approved research topic, with guidance, the student is expected to be able to carry on the research relatively independently. In carrying out the research, the student should demonstrate satisfactorily, critical thinking, ability to execute the research as approved, honesty, thoroughness, intellectual curiosity and the desire to add to “knowledge” in the chosen area of research.

**F** **Clinical Requirements**

The graduate Endodontics student must meet the prescribed minimum clinical requirements as an attestation of clinical competency. These requirements are:

- Non Surgical Endodontics Therapy
  - 25 Anterior teeth
  - 25 Premolar teeth
  - 100 upper and lower molars
  - 50 cases of re-treatment/ regressive canals
- Surgical Endodontics
  - 20 cases which must include at least five molar teeth
- Emergency Treatment
  - Not less than five (5) cases which should include incision for drainage.

*Trauma Cases*

Seven (7) cases of traumatic injuries to the teeth as in sports medicine, traffic accidents, teeth fracture and teeth avulsion.

*Bleaching of teeth Endodontically treated*

At least 3 cases must be done during the training.

*Recall Cases*

It is expected that the student should recall not less than 25% of all treated cases per year for follow up.

*Other Endodontic Therapies*

A student must manage cases that may not readily fit into above categories e.g. replantation and transplantation of teeth, removal of impacted instrument endo-periodontics or other cases involving Endodontics and cognate specialties.

Satisfying these clinical requirements is mandatory for the award of clinical certificate of Endodontics Specialty Certificate.