



King Saud University
College of Dentistry

COURSE SPECIFICATION

Course Title: **Clinical Endodontic Procedures**

Course Code: **423 RDS**

Course Directors: **Dr. Tarik M. Al-Jabreen (DUC)**

Dr. Sara A. Alsubait (MUC)

Department: **Restorative Dental Sciences**

Academic Year: **1434 - 1435H (2013 - 2014G)**

Course Specification

Institution	King Saud University
College / Department	College of Dentistry / Restorative Dental Sciences

A. Course Identification and General Information

Course title (code)	Clinical Endodontic Procedures (423 RDS)
Credit hours	3 credit hours
Program in which the course is offered	Bachelor of Dental Science (BDS)
Name of faculty member responsible for the course	Dr. Tarik M. Al-Jabreen (DUC) Dr. Sara A. Alsubait (MUC)
Level / year at which this course is offered	Fourth Year
Pre-requisites for this course	Preclinical Endodontic Course (323 RDS)
Co-requisites for this course	None
Location if not on main campus	Darriyah (main campus) & Malaz campus (MUC- girls' campus)

B. Objectives

Upon completion of 423 RDS, students will be able to:

1. Diagnose endodontic pain by organizing pain history, symptoms and clinical findings in a systematic manner (2.1).
2. Utilize endodontic tests to determine pulp vitality (2.1).
3. Treat, clinically, endodontically involved anterior and posterior teeth with non-surgical root canal therapy (1.3) (2.1).
4. Perform non-surgical root canal re-treatment in indicated cases (1.3) (2.1).
5. Use new endodontic technologies; such as apex locators and rotary instrumentation (2.2).
6. Differentiate cases that need adjunctive therapy, specialist treatment, endodontic surgery and further restorative treatment properly (2.2).
7. Plan and refer the treated cases for appropriate restoration (2.2).
8. Recall treated patients and be aware of the value of post-operative follow-up (2.2).

C. Course Description

I. Topics to be Covered		
Topic	No of Weeks	Contact hours
Introduction and course description	1	1
Clinical diagnostic procedures	1	1
Clinical endodontics I	1	1
Clinical endodontics II	1	1
Endodontic retreatment	1	1
Restoration of endodontically treated teeth	1	1
Endo-perio relationship	1	1
Endodontic emergency treatment	1	1
Discoloration & Bleaching	1	1
Traumatic injuries	1	1
Endodontic Surgery	1	1
Prognosis of root canal therapy	1	1
New trends in Endodontics	1	1

II. Course components	
Lecture	Practical
13	90 clinical session contact hours

III. Development of Learning Outcomes in Domains of Learning

a. Knowledge

(i) At the end of 423 RDS, students should be able to:

1. Describe endodontic-periodontal interrelationship (1.3).
2. Define the role of endodontics after dental traumatic injuries (1.4).
3. Identify discolored teeth and methods of bleaching (1.3) (1.4).
4. Describe periradicular surgery (1.4).
5. Discuss new trends in endodontics (1.8).

(ii) Teaching strategies to be used to develop that knowledge:

- Interactive lectures.
- Demonstration in clinic.
- Clinical practice.

(iii) Methods of assessment of knowledge acquired:

- Examination: quizzes, midterm, final (MCQs plus short answers, T/F and fill-in the blanks).
- Daily knowledge evaluation in clinic.

b. Cognitive Skills

(i) At the end of 423 RDS, students should be able to:

1. Employ different clinical tests and follow systemic steps to endodontic diagnosis (2.1) (2.2).
2. Interpret radiographic images (2.1) (2.2).
3. Refer the treated cases for appropriate restoration (2.1) (2.3).
4. Manage endodontic emergencies (2.1) (2.2).
5. Predict and assess the outcome of treatment rendered to the patient (2.1).

(ii) Teaching strategies to be used to develop that knowledge:

- Interactive lectures.
- Demonstration in clinic.
- Clinical practice.

(iii) Methods of assessment of knowledge acquired:

- Clinical observation and evaluation.
- Daily knowledge evaluation.
- Clinical competency examination: the subject of this evaluation will be a single-rooted, single-canaled anterior or premolar tooth. The student will select the case and decide the session for examination in the second semester. The course director and one of 423 RDS clinical instructors will evaluate the case. If the student did not pass the exam, he / she has the chance to redo it. To pass this course the student should pass this exam.

C. Interpersonal Skills and Responsibility

(i) At the end of 423 RDS, students should be able to:

1. Discuss with the instructor case diagnosis and treatment plan (3.1) (3.3).
2. Communicate with dental assistant regarding the required material and instruments (3.1).
3. Manage time with relation to getting a history, arriving at a diagnosis and providing treatment (3.2) (3.3).

(ii) Teaching strategies to be used to develop that knowledge:

- Demonstration in clinic.
- Clinical practice.

(iii) Methods of assessment of knowledge acquired:

- Clinical observation and evaluation.
- Clinical competency examination: the subject of this evaluation will be a single-rooted, single-canaled anterior or premolar tooth. The student will select the case and decide the session for examination in the second semester. The course director and one of 423 RDS clinical instructors will evaluate the case. If the student did not pass the exam, he / she has the chance to redo it. To pass this course the student should pass this exam.

d. Communication, Information Technology and Numerical Skills

(i) At the end of 423 RDS, students should be able to:

1. Describe different treatment options to the patient effectively (4.1).

(ii) Teaching strategies to be used to develop that knowledge:

- Demonstration in clinic.
- Clinical practice.

(iii) Methods of assessment of knowledge acquired:

- Clinical observation and evaluation.
- Clinical competency examination: the subject of this evaluation will be a single-rooted, single-canaled anterior or premolar tooth. The student will select the case and decide the session for examination in the second semester. The course director and one of 423 RDS clinical instructors will evaluate the case. If the student did not pass the exam, he / she has the chance to redo it. To pass this course the student should pass this exam.

e. Psychomotor Skills

(i) At the end of 423 RDS, students should be able to:

- Demonstrate, clinically, competence in performing the following skills (5.1) (5.2) (5.3):
 - Diagnose pulpal and periapical pathosis.
 - Apply different types of anesthesia (primary and supplementary).
 - Apply different isolation methods.
 - Perform a well-designed access cavity.
 - Shaping and cleaning of root canal system.
 - Obturation of the shaped and cleaned root canal system.
 - Perform non-surgical root canal re-treatment in indicated cases.

(ii) Teaching strategies to be used to develop that knowledge:

- Interactive lectures.
- Demonstration in clinic.
- Clinical practice.

(iii) Methods of assessment of knowledge acquired:

- Clinical observation and evaluation.
- Daily knowledge evaluation.
- Clinical competency examination: the subject of this evaluation will be a single-rooted, single-canaled anterior or premolar tooth. The student will select the case and decide the session for examination in the second semester. The course director and

one of 423 RDS clinical instructors will evaluate the case. If the student did not pass the exam, he / she has the chance to redo it. To pass this course the student should pass this exam.

IV. Schedule of Assessment Tasks for Students

Assessment	Assessment task	Week due	Proportion of Final Assessment
1	Quiz #1, 2	5, 13	5%
2	Midterm	10	10%
3	Final	18	20%
4	Assignment	25	5%
5	Clinical exam	Any clinical session in 2 nd semester (student's selection)	10%
6	Clinical case assessments	Per finished case	50%
Total			100%

D. Student Support

- Course director is available for 2 hours a week for individual consultation as office hours.
- Course director is available on-line (via email, and virtual office hours).
- Clinical instructors (Faculty and PG students) are available during clinic hours and office hours for student support and assistance.

E. Learning Resources

- Required Text
 - Pathways of the pulp 10th ed. By: Hargreaves and Cohen.
- Essential References
 - Endodontics 6th ed. by: Ingle, Bakland and Baumgartner.
 - Principles & Practice of Endodontics 4th ed. by: Walton & Torabinejad.
- Recommended Reference Material
 - Journal of Endodontics
 - International Journal of Endodontics
- Web Sites
 - <http://faculty.ksu.edu.sa/jabreen/default.aspx>
 - <http://fac.ksu.edu.sa/salsubait>
 - American association of endodontists: www.aae.org
 - The endo blog: <http://www.theendoblog.com/>
- Other learning material:
 - DVD's of the endodontic textbook- "Principles & practice of endodontics".

F. Facilities Required

1. Accommodation
 - i. Lecture room (to accommodate up to 50 students).
 - ii. Up to 50 functional clinics.
2. Computing resources
 - i. Internet access and computer access through library.
 - ii. Multimedia presentation equipment in classroom.
3. Other resources
 - i. Patients.
 - ii. Endodontic instruments.

G. Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching:
 - Mid-course and yearly student feedback questionnaires.
 - Contact hours, e-mail and virtual group discussions.
2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department:
 - Peer review of lectures.
3. Processes for Improvement of Teaching:
 - Continuous update of lectures.
 - Multimedia presentation of lectures.
 - Application of various teaching methodologies.
4. Processes for Verifying Standards of Student Achievement:
 - Presentations of course report at end of semester to division.
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.
 - Continuous (mid and yearly) evaluation of exams to verify difficulty and differentiation indices.
 - Continuous benchmarking of course against international standards.
 - Incorporation of student feedback in following years' sessions.
 - Incorporation of contemporary teaching methods – such as role playing and group discussions.