



Beni-Suef University  
Faculty of Dentistry  
Quality Assurance Unit



## Course Specification

University: **Beni-Suef**

Faculty: Dentistry

Course Title: **Endodontics**

Course code: **DEN4 / DEN5**

Program on which the course is given: **Bachelor degree in Dentistry, Graduate Program**

Department offering the course: **Endodontics**

Academic year: **2023/2024**

Date of specification approval: 9/2023

### A-Basic Information

<b>Academic Year:</b>	2023-2024
<b>Course Code:</b>	DEN4 / DEN5
<b>Course Theoretical (contact hours):</b>	DEN4: 1 DEN5: 1
<b>Practical (contact hours)</b>	DEN4: 2 DEN5: 2
<b>Total Hours:</b>	DEN4: 3 DEN5: 3
<b>Teaching staff:</b>	Maii Youssef, Laila Elmansy Sarah Mahgoub

### B-Professional Information

#### 1- Overall aims of course:

1. Correlate in science the clinical and biological principles of endodontics.
2. Represent scientific terms related to the course, and by the end of the course, the student should be able to use these terms correctly.
3. Acquire the clinical experience needed to perform endodontic therapy for all single-rooted teeth and some multi-canaled teeth.

## **2- Intended learning outcomes of the course (ILOs):**

### **a- Knowledge and understanding:**

a1-Identify the scope of endodontics, objectives, indications, and contraindications of root canal treatment.

a2-Define different steps in endodontic treatment including access cavity preparation, root canal preparation, and obturation.

a3-Describe anatomy of pulp space for anterior, premolar, and molar permanent teeth and different types of root canal systems.

a4- Describe access cavity preparation design and procedures.

a5- Describe the different types of endodontic instruments, devices, and ISO standardization of hand files.

a6- Describe different endodontic materials; irrigation solutions, intracanal medicaments, and obturation materials.

a7- Describe the different techniques of intraradicular preparation and its steps.

a8- Identify the clinical criteria that determine when to obturate the canals.

a9- Define the different obturation techniques.

a10- Identify the procedural accidents and their causes, prevention, and treatment.

a11- State a system of subjective and objective examinations and describe radiographic findings to diagnose the source of pain either pulpal or periradicular.

a12- Describe the role of radiography in Endodontics and its techniques.

a13- State the procedures for reviewing the chief complaint, medical,

and dental history, and present illness.

a14- Classify the various traumatic injuries along with their diagnosis, and management.

a15- Describe primary endodontic lesions, primary periodontal lesions, and combined endodontic-periodontal lesions.

a16- Identify non-odontogenic pathological lesions that may mimic endodontic pathological lesions.

a17- Identify various endodontic emergencies and their management, identify therapeutics needed in the dental field.

a18- Discuss the indication for different endo-surgical procedures and the commonly used root-end filling materials.

a19- Describe success and failure in endodontics, and case selection for retreatment.

**b- Intellectual skills:**

b1- Interpret the shape and position of the access cavity based on the different anatomy of the pulp space in each tooth.

b2- Interpret the subjective symptoms and objective findings to identify the nature of pulp or periapical disease.

b3- Formulate appropriate treatment plans according to the pulpal and periapical diagnosis.

b4- Self-evaluate his/her diagnostic and clinical level of performance.

b5- Select the suitable techniques for the isolation of difficult cases in endodontics.

**c- Professional and practical skills:**

c1- Prepare access cavity for all teeth showing the location of each orifice relative to the occlusal or lingual surface.

c2-Prepare root canal space using step back and hybrid techniques on extracted teeth.

c3-Obturate root canals using lateral compaction technique.

c4- Perform root canal treatment clinically and manage some procedural errors during root canal treatment if correctable.

c5- Perform adequate subjective and objective examination for the identification of pulp and periradicular diseases.

c6- Choose the appropriate clamp for anterior, premolar, and molar teeth and properly apply the clamp/ rubber dam.

c7-Interpret the preoperative, working length determination, master cone, and postoperative periapical x-ray films.

c8-Perform a prescription for managing pain and infections.

c9-Interpret emergency cases and practice supplemental anesthesia techniques in emergency cases.

c10-Perform a referral form for medical consultation if needed.

**d- General and transferable skills:**

d1- Develop competent communication with patients, other members of the dental team, and other health professionals.

d2- Assess the social and psychological issues relevant to the care of patients.

### 3- Contents:

Preclinical Course (3rd year):

<b>Topic</b>	<b>lecturer</b>	<b>Number of Lectures covering topic</b>	<b>Weighing</b>	<b>ILOs covered by the topic</b>	<b>Teaching method</b>	<b>Assessment method</b>	<b>Practical</b>
<b>Scope of endodontics</b>	Dr. Laila Elmansy	1	5.2%	a1	Interactive lecture	<ul style="list-style-type: none"><li>- Periodic written evaluation: MCQ, true and false</li><li>- Oral exam</li></ul>	1
<b>Pulp space morphology &amp; macroscopic anatomy</b>	Dr. Laila Elmansy	2	10.4%	a2, a3 b1	Interactive lecture & practical demonstration	<ul style="list-style-type: none"><li>- Practical/OSPE</li><li>- Periodic written evaluation: short/long essay, MCQ, true and false</li><li>- Oral exam</li></ul>	3
<b>Endodontic access cavity preparation</b>	Dr. Laila Elmansy	2	10.4%	a2, a4 b1 c1	Interactive lecture & practical demonstration	<ul style="list-style-type: none"><li>- Logbooks</li><li>- Practical/OSPE</li><li>- Periodic written evaluation: short/long essay, MCQ, true and false</li></ul>	6

						- Oral exam	
<b>Endodontic instruments (online)</b>	Dr. Maii Youssef	3	15.6%	a5	Interactive lecture & practical demonstration	- Practical/OSPE - Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0
<b>Cleaning &amp; shaping of root canal</b>	Dr. Maii Youssef	3	15.6%	a2, a7 c2, c4, c6, c7	Interactive lecture & practical demonstration & brainstorming	- Logbooks - Practical/OSPE - Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	4
<b>Obturation of root canals</b>	Dr. Sarah Mahgoub	3	15.6%	a2, a6, a8, a9 c3	Interactive lecture & practical demonstration	- Logbooks - Practical/OSPE - Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	4
<b>Endodontic Mishaps</b>	Dr. Laila Elmansy	2	10.4%	a10 c4	Interactive lecture &	- Periodic written evaluation: short/long essay,	4

					practical demonstration	MCQ, true and false - Oral exam	
<b>Pulp and periapical diseases</b>	Dr. Sarah Mahgoub	3	15.6%	a11 b2 c5	Interactive lecture	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0

**Clinical Course (4<sup>th</sup> year):**

<b>Topic</b>	<b>lecturer</b>	<b>Number of Lectures covering topic</b>	<b>Weighing</b>	<b>ILOs covered by the topic</b>	<b>Teaching method</b>	<b>Assessment method</b>	<b>Practical</b>
Endodontic diagnostic	Dr. Maii Youssef	2	8.7%	a13 b2, b3,b4, c5, d1,d2	Interactive lecture & clinical demonstration	- Logbooks - Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	4
Radiographic interpretation and	Dr. Sarah Mahgoub	1	4.3%	a12 b3, b5 c5, c6, c7	Interactive lecture & clinical	- Logbooks - Practical/OSPE - Periodic written evaluation:	10

isolation					demonstration	short/long essay, MCQ, true and false - Oral exam	
Case selection and treatment planning	Dr. Laila Elmansy	2	8.7%	b3, b4, d1, d2, c8, c10	Interactive lecture & clinical demonstration	- Logbooks - Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	5
Emergency treatment in Endodontics	Dr. Maii Youssef	2	8.7%	a17, b3 c5, c8, c9, c10	Interactive lecture & clinical demonstration	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	10
Therapeutics in endodontics	Dr. Maii Youssef	1	4.3%	a17, c8, B3	Interactive lecture & clinical demonstration	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	10
Traumatic dental injuries	Dr. Sarah	2	8.7%	a14, b3, c5, c8	Interactive lecture &	- Periodic written evaluation: short/long essay,	0



(online)	Mahgoub				clinical demonstration	MCQ, true and false - Oral exam	
Management of endodontic pain	Dr. Laila Elmansy	3	13%	c8, c9, c10	Interactive lecture & clinical demonstration	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	10
Endo-perio interrelationship (online)	Dr. Sarah Mahgoub	1	4.3%	a15, a16, b3, c5	Interactive lecture	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0
Endodontic surgery	Dr. Laila Elmansy	3	13%	a18, c5, c10	Interactive lecture & brainstorming	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0
Vital pulp therapy	Dr. Sarah Mahgoub	1	4.3%	b3, c5	Interactive lecture	- Periodic written evaluation: short/long essay, MCQ, true and false	0

						- Oral exam	
Regenerative endodontics	Dr. Sarah Mahgoub	1	4.3%	a7, a8, a9, b3, c5	Interactive lecture	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0
Non-surgical root canal retreatment	Dr. Maii Youssef	2	8.7%	a7, a8, a9, a19, b3, c6, c7, c5, c10	Interactive lecture & brainstorming	- Periodic written evaluation: short/long essay, MCQ, true and false exam - Oral exam	0
Hard tissue resorption	Dr. Maii Youssef	1	4.3%	a7, a8, a9, b3	Interactive lecture	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0
Evaluating success and failure	Dr. Sarah Mahgoub	1	4.3%	a19	Interactive lecture & clinical demonstration	- Periodic written evaluation: short/long essay, MCQ, true and false - Oral exam	0

### Teaching and learning methods

Small group discussion / Brainstorming.	Yes
Interactive lecture	Yes
Demonstrations.	Yes
Research project	Yes
Face-to-face sessions	Yes
Online Activities	Yes

### 5- Student assessment methods

a. Written short answer questions.	Yes
b. Written long essay.	Yes
c. Multiple choice questions (MCQ)	Yes
d. True or false question with justifying answer.	Yes
e. Practical / OSPE.	Yes
f. Project work.	Yes
g. logbooks.	Yes

### Assessment schedule

#### Preclinical Course (3<sup>rd</sup> Year):

Midterm 1	15 <sup>th</sup> week	15 Degrees
Midterm 2	21 <sup>st</sup> week	15 Degrees
Requirements/ assignment delivery	25 <sup>th</sup> week	20 Degrees
Practical quiz	25 <sup>th</sup> week	10 Degrees

#### Clinical Course (4<sup>th</sup> Year):

Midterm 1	15 <sup>th</sup> week	10 Degrees
Midterm 2	21 <sup>st</sup> week	10 Degrees
Clinical cases delivery	25 <sup>th</sup> week	10 Degrees

### Weighting of assessments

	Written	Practical	Oral Exam	Total
Final Exam	120	60	30	210
Attendance Participation	90 for 3 <sup>rd</sup> and 4 <sup>th</sup> year			90
				300

### List of references:

- a. Cohen, Pathways of the Pulp, 2019.
- b. Ingle Endodontics, 2020.
- c. Textbook of Endodontics, 2014

**Facilities required for teaching and learning:**

- Whiteboard for illustration.
- Markers
- Data show- computers/laptop
  - Scientific videos.
- Endodontic materials (brought by the student).
- Hand instruments.
- Radiographic machine.

Course Coordinator: **Dr. Maii Youssef , Dr. Laila Elmansy**

Head of department: **Ass. Prof walid Samir**

Date: 9/2022