

**Umm Al-Qura University**

**Faculty of Dentistry**

**Vice Deanship of Academic Development & Community Service**

وحدة تطوير المناهج

**Curriculum Development Unit**

**جامعــةأمالقــرى**

**كليةطب الأسنان**

**وكالة الكلية للتطوير الأكاديمي وخدمة المجتمع**

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation & Assessment**

**Course Specifications**

**(CS)**

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| **Course Name** | Preclinical endodontic | |
| **Course Code** | 190443003 | |
| **Academic Level** | 4th Level | |
| **Semester** | 1st& 2nd | |
| **Study Plan No** | 33 | |
| **Department** | Conservative and Restorative Dentistry | |
| **Division** | Endodontics | |
| **Academic Year** | 2018-2019 AD – 1439 -1440 AH | |
| **Contact hours** | Theoretical | 1/ week |
| Practical | 2 / week |
| Clinical | Non / week |
| **Total Contact Hrs** | 3 / week | |
| **Total Credit Hrs** | 4 | |

UQU-DENT:F0401-01/02

**Course Specifications**

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| Institution: Um Alqura University Date of Report: 3/6//2018 |
| College/Department: Faculty of Dentistry /department restorative dentistry |

**A. Course Identification and General Information**

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| 1. Course title and code: preclinical endodontic/190443003 |
| 2. Credit hours4Credits |
| 3. Program(s) in which the course is offered.  (If general elective available in many programs indicate this rather than list programs)  Bachelor Degree of Dental Medicine and Surgery |
| 4. Name of faculty member responsible for the course  Dr.Laila Kenawi Assistant professor of endodontics. Official mail : lailamkenawi@hotmail.com |
| 5. Level/year at which this course is offered fourth year, all year long |
| 6. Pre-requisites for this course (if any)  successful completion of third year |
| 7. Co-requisites for this course (if any) |
| 8. Location if not on main campus |
| 9. Mode of Instruction (mark all that apply)  35%  Yes  a. Traditional classroom What percentage?  b. Blended (traditional and online) What percentage?  /  5%  c. e-learning What percentage?  Yes  d. Correspondence What percentage?  f. Other What percentage?  60%  Comments:  Practical sessions are also applied |

**B Objectives**

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| 1. What is the main purpose for this course?  This course teaches the student the basic fundamentals of root canal preparation. The course has a theoretical part and a practical part where student perform all the necessary steps needed for a root canal preparation on extracted teeth. The course ultimately prepares student to be able treat and manage clinical cases of root canal fillings in future years. |
| 2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)  A rational approach to decision-making supported by literature evidence where possible, will be emphasized and evidence for this sought in the required coursework of two researched review essays.. |

**C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)**

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| 1. Topics to be Covered | | |
| List of Topics | No. of  Weeks | Contact Hours |
| Introduction to Endodontics | 1 | 1 |
| Components of the root canal system, root canal Anatomy and objectives of Access Cavity | 1 | 1 |
| Guide lines for Access cavity preparation mechanical phases of Access cavity preparation | 1 | 1 |
| Macroscopic Anatomy and access cavity preparation for individual teeth | 1 | 1 |
| Errors in Access Cavity Preparation and access Cavities in Difficult Situations | 1 | 1 |
| Endodontic instruments | 1 | 1 |
| Endodontic instruments | 1 | 1 |
| Working length | 1 | 1 |
| Disinfection of pulp Space Instrumentation I | 1 | 1 |
| Instrumentation II | 1 | 1 |
| Instrumentation III | 1 | 1 |
| Irrigation and intracanal medication | 1 | 1 |
| Revision | 2 | 2 |
| Obturation I | 1 | 1 |
| Obturation II | 1 | 1 |
| Isolation | 1 | 1 |
| Rotary instrumentation | 1 | 1 |
| Rotary instrumentation | 1 | 1 |
| Procedural errors of rotary instrumentation and obtuartion | 1 | 1 |
| Endodontic radiography | 1 | 1 |
| The dental pulp complex and periradicular tissue | 1 | 1 |
| Pulp and periapical diseases | 1 | 1 |
| Endodontic Diagnosis | 1 | 1 |
| Endodontic Diagnosis | 1 | 1 |
| Case scenario | 1 | 1 |
| Revision | 2 | 2 |
| Total | 28 | 28 |

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| Practical | | |
| List of Topics | No. of  Weeks | Contact Hours |
| Introduction and Identification of teeth | 1 | 2 |
| Project1: Access cavity anterior teeth | 1 | 2 |
| Project 2: Access cavity anterior teeth | 1 | 2 |
| Project 3: Access cavity anterior teeth | 1 | 2 |
| Project 4: Access cavity premolars | 1 | 2 |
| Project 5: Access cavity premolars | 1 | 2 |
| Project 6: : Access cavity premolars |  |  |
| Project 7: Working length anterior teeth and premolars | 1 | 2 |
| Project 8: Step back anterior teeth | 1 | 2 |
| Project 9 : Step back premolars | 1 | 2 |
| Project 10: Step back anteriors and premolars | 1 | 2 |
| Project 11: Step back anteriors and premolars | 1 | 2 |
| Complete unfinished requirements | 1 | 2 |
| mid term practical exam | 1 | 2 |
| Project 1: Obturation demo | 1 | 2 |
| Project 2: Obturation anterior and premolars | 1 | 2 |
| Project 3: Obturation anterior and premolars | 1 | 2 |
| Project 4: : Maxillary and mandibular first molar access | 1 | 2 |
| Project 5: molars access cavitypreparation | 1 | 2 |
| Project 6 : Cleaning and shaping molars | 1 | 2 |
| Continue project 6 | 1 | 2 |
| Project7 : Obturation molars | 1 | 2 |
| Continue project 7 | 1 | 2 |
| Project 8: first molars RCT | 1 | 2 |
| Project 9: Single root RCT | 1 | 2 |
| Project 10: Single root RCT | 1 | 2 |
| Complete unfinished requirements | 1 | 2 |
| Practical exam | 1 | 2 |
| Total | 28 | 56 |

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| 2. Course components (total contact hours and credits per semester): | | | | | | |
|  | Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| Contact  Hours | 28 |  |  | 56 |  | 84 |
| Credit | 2 |  |  | 2 |  | 4 |

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| 3. Additional private study/learning hours expected for students per week.  4 hrs/week |

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| 4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy |

Course Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning, assessment, and teaching.

The ***National Qualification Framework*** provides five learning domains. Course learning outcomes are required. Normally a course has should not exceed eight learning outcomes which align with one or more of the five learning domains. Some courses have one or more program learning outcomes integrated into the course learning outcomes to demonstrate program learning outcome alignment. The program learning outcome matrix map identifies which program learning outcomes are incorporated into specific courses.

On the table below are the five NQF Learning Domains, numbered in the left column.

**First**, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. **Fourth**, if any program learning outcomes are included in the course learning outcomes, place the @ symbol next to it.

Every course is not required to include learning outcomes from each domain.

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|  | **NQF Learning Domains**  **And Course Learning Outcomes** | **Course Teaching**  **Strategies** | **Course Assessment**  **Methods** |
| **1.0** | **Knowledge** | | |
| 1.1 | Define the scope, basic principles and diagnostic modalities of endodontics. | Interactive lectures.  Practical sessions.  Computer based group assignments. | * Quiz I and II * Mid-year written examination. * Final written examination. * Final OSPE   Assessment of computer based group assignment using rubric |
| 1.2 | Root morphology and access cavity for all teeth. |
| 1.3 | Principles of tooth length determination, cleaning and shaping as well as obturation. |
| 1.4 | Different mishaps related to access cavity, canal preparation, and obturation. |
| **2.0** | **Cognitive Skills** | | |
| 2.1 | Correlate diagnostic findings with root morphology to prepare appropriate line of treatment. | Interactive lectures.  Practical sessions.  Computer based group assignments. | * Quiz I and II * Mid-year written examination. * Final written examination. * Final OSPE   Assessment of computer based group assignment using rubric |
| **3.0** | **Interpersonal Skills & Responsibility** | | |
| 3.1 | Show proper skills in working with colleagues and supervisors in a team work. | Computer based group assignments. | Assessment of computer based group assignment using rubric |
| **4.0** | **Communication, Information Technology, Numerical** | | |
| **5.0** | **Psychomotor** | | |
| 5.1 | Draw pulp spaces for different teeth. | Practical sessions  Minimal practical procedures requirement | Assessment of Minimal practical procedures requirement using rubric  Midyear and final OSPE |
| 5.2 | Perform different steps of root canal treatment |

**Suggested Guidelines for Learning Outcome Verb, Assessment, and Teaching**

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| **NQF Learning Domains** | **Suggested Verbs** |
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| **Knowledge** | list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write |
| **Cognitive Skills** | estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise |
| **Interpersonal Skills & Responsibility** | demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write |
| **Communication, Information**  **Technology, Numerical** | demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize |
| **Psychomotor** | demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct |

Suggested ***verbs not to use***when writing measurable and assessable learning outcomes are as follows:

Consider Maximize Continue Review Ensure Enlarge Understand

Maintain Reflect Examine Strengthen Explore Encourage Deepen

Some of these verbs can be used if tied to specific actions or quantification.

**Suggested assessment methods and teaching strategies are:**

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

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| 5. Schedule of Assessment Tasks for Students During the Semester | | | | |
|  | Assessment task  (e.g. essay, test, group project, examination etc.) | Week due | Proportion of total Assessment | |
| 1 | First Quiz | 7th week of the first term | 6% | |
| 2 | TB-SDL assessments and student presentations | Continuous assessment during course | 3% | |
| 3 | Mid year written examination (MCQ’s, MEQ’s, EMQ’s) | Mid- year | 15% | |
| 4 | Mid year practical examination | Mid- year | 5% | |
| 5 | Second quiz | 7th week of the second term | 6% | |
| 6 | Requirements | During the course | 15% | |
| 7 | Final year written examination | End of year | 20% | |
| 8 | Final year practical examination and OSPE’s | End of year | 30% | |
|  | Total |  | 100% | |
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**D. Student Academic Counseling and Support**

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| 1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)  2hr/week |

**E. Learning Resources**

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| 1. List Required Textbooks  -Ingle's Endodontics 6e Publisher: Pmph usa; 6 edition (2007)  ISBN-10: 155009333  -Principles and Practice  Publisher: Saunders; 4 edition (March 10, 2008) ISBN-10: 1416038515 |
| 2. List Essential References Materials (Journals, Reports, etc.)  Kenneth M. Hargreaves DDS PhD FICD FACD (Author), Stephen Cohen MA DDS FICD FACD (Author) Publisher: Mosby; 10 edition (May 10, 2010) ISBN-10: 0323064892 |
| 3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)   * Journal of endodontics * International endodontic journal * Endodontic topics * Journal of dental research * Brithish dental journal   + Endodontics: third edition . publisher C. Stock, R. Walker. K. Gulabivala |
| 4. List Electronic Materials(eg. Web Sites, Social Media, Blackboard, etc.)   * www.cohenendodontics.com * www.wiley.com * www.endoweb.com |
| 5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.   * Models * Slides * Audio-visual system. |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.) |
| 1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)  **a. Classrooms:**  Each teaching classroom in the faculty is large enough to accommodate 60 students at  one time & it includes enough number of comfortable seats arranged in rows with  spaces between them. These classrooms are supplied with audiovisual equipments, data  show, a large screen, screen pointers & other equipments needed for the PowerPoint  presentation of lectures.  **b. Laboratory:**  The simulation laboratory can be used in this preclinical course. However, students will be taking radiographs during this laboratory, so  The students perform and submit satisfactory conventional and advanced (rotary NiTi) endodontic treatment on human extracted maxillary (incisor, canine, premolar, molar)and mandibular (incisor, canine, premolar, molar) permanent and plastic teeth ; a total of nine teeth. The treated teeth are to be submitted with the record sheet and radiographs (WL., obturation), which are signed by the supervisors.  **c. Dental radiography unit**  (lead-protected walls), adjacent to the laboratory:  Where students can take different types of radiographs |

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| 2. Computing resources (AV, data show, Smart Board, software, etc.)  All students have the opportunity to use computer with internet access in a  comfortable place. This will enable the students to search for the learning issues of the  PBL and SDL tutorials. |
| 3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)  Classroom for SDL presentation. Study areas for students to revise their lessons. |

**G Course Evaluation and Improvement Processes**

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching  1. A course evaluation questionnaire is designed to assess the effectiveness of the  course regarding objectives, teaching facilities, instructor, assessment  process and resources. It is distributed to all the students at the end of the  course, data is analyzed, interpreted and discussed by the course director or committee in order to issue an improvement plan for any difficulties facing the students.  2. Focus group discussion with the students to validate the questionnaire results. |
| 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor  a. A course evaluation questionnaire is designed to assess the effectiveness of  the course. It is distributed to instructors who participated in teaching the course  at the end of the semester, data is analyzed, interpreted and discussed by the course director or committee.  b. An annual course report is compiled by the course director or committee in light of  the results of students performance as well the results of the course evaluation  questionnaire by students. |
| 3 Processes for Improvement of Teaching  1. Double checking of the students answers by two raters or evaluators.  2. External examiners recruitment is helpful for verifying students' performance. |
| 4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)  1. Double checking of the students answers by two raters or evaluators.  2. External examiners recruitment is helpful for verifying students' performance. |

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| 5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.  The course is revised annually after its delivery in light of the results of  students' performance (students' grades) and the results of the course evaluation questionnaire by both students and teaching staff. The course director or committee discusses these issues and put an improvement plan for each spotted problem. They revise the course content and intended learning objectives. Any changes in objectives, teaching strategies or assessment methods should be documented in the course specification of the next year. Major changes should not be considered except after being approved by the curriculum committee. |

**Faculty or Teaching Staff:\_Dr Majid Almalky Assistant professor of endodontics. Official mail:** [**dr.almalki.m@gmail.com**](mailto:dr.almalki.m@gmail.com)**,**

**Dr Samia Mohamed elsherief. Assistant professor of endodontics. Official mail: smsherief@uqu.edu.sa and Samia\_elsherief11@hotamil.com**

**Dr Laila Kenawi Assistant professor of endodontics. Official mail:lailamkenawi@hotmail.com**

**Dr Ahmad Tarek Assistant professor of endodontics. Official mail:ahmadtarekfawzy@hotmail.com**

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date Report Completed: \_**

**Received by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dean/Department Head**

**Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**