**National Commission for Academic Accreditation & Assessment**

**Course Specification**

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| Institution: University of Dammam |
| College/Department: College of Dentistry |

**A. Course Identification and General Information**

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| 1. Course title and code: Integrated Dentistry III, DTEDU572 |
| 2. Credit hours: 2 |
| 3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs): Bachelor of Dental Surgery |
| 4. Name of faculty member responsible for the course: Dr Maha ElTantawi |
| 5. Level/year at which this course is offered: 5th year |
| 6. Pre-requisites for this course (if any): Integrated Dentistry II |
| 7. Co-requisites for this course (if any): none |
| 8. Location if not on main campus: College of Dentistry |

**B. Objectives**

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| 1. Summary of the main learning outcomes for students enrolled in the course.  The course aims at giving the students an introduction to the practice of Evidence Based Dentistry focusing on the steps of “Ask”, “Acquire” and “Appraise” with the last step (Appraise) practiced on some types of studies (observational and clinical trials). |
| 2. Briefly describe any plans for developing and improving the course that are being implemented: Course content will be modified from the content of the course version delivered last academic year (2013- 2014). Less focus will be made on “Systematic Reviews”. In observational studies, the focus will be on cohort studies. |

**C. Course Description**

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| 1 Topics to be Covered | | |
| List of topics | N Weeks | Contact hrs |
| Introduction to course & Principles of Evidence Based Dentistry and formulation of PICO question | 1 | 2 |
| Searching for evidence | 2 | 4 |
| Risk, causality and sources of error | 1 | 2 |
| Types of studies: cross sectional, case control and cohort | 3 | 6 |
| Types of studies: clinical trial (RCT) | 2.5 | 7 |
| Types of studies: Systematic Review | 1 | 2 |
| Exams | 1 | 2 |
| Total |  | 25 |

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| 2 Course components (total contact hours per semester): | | | | |
| Lecture: 10 | Tutorial: 9 | Laboratory: 1 (computer lab) | Practical/ Field / Internship: 0 | Other: 5 (assessments) |

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| 3. Additional private study/learning hours expected for students per week. 2 |

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| 4. Development of Learning Outcomes in Domains of Learning |
| **a. Knowledge** |
| **Program outcomes covered**:  **I.25. Discuss features of epidemiologic studies.**  **I.28. Discuss the steps for evidence-based decision making.**  (i) Description of the knowledge to be acquired   1. Discuss criteria of causality. 2. Describe major designs of epidemiologic studies. 3. Discuss the common types of bias and threats to validity. 4. Describe measures of association in different types of studies. 5. Discuss the principles of Evidence Based Dentistry. 6. Enumerate steps of undergoing a literature search. 7. List the elements of a PICO question. |
| (ii) Teaching strategies to be used to develop that knowledge   1. Lectures 2. Class discussions |
| (iii) Methods of assessment of knowledge acquired   1. Exams (two exams in continuous assessment and one as final assessment). |
| **b. Cognitive Skills** |
| (i) Description of cognitive skills to be developed   1. Formulate a PICO question. 2. Develop strategies to search for evidence and answers to questions. 3. Appraise articles based on observational studies and clinical trials. |
| (ii) Teaching strategies to be used to develop these cognitive skills   1. Lectures 2. Class discussions |
| (iii) Methods of assessment of students cognitive skills   1. Exams (two exams in continuous assessment and one as final assessment) 2. Group and individual assignments |
| **c. Interpersonal Skills and Responsibility** |
| **Program outcomes covered:**  IV.4. Describe characteristics of successful and effective teams.    (i) Description of the interpersonal skills and capacity to carry responsibility to be developed   1. Apply team skills to work in a group to achieve an objective |
| (ii) Teaching strategies to be used to develop these skills and abilities   1. Group discussions |
| (iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility   1. Group assignments |
| **d. Communication, Information Technology and Numerical Skills** |
| **Program outcomes covered:**  **V.1. Assess the quality of published articles to use their conclusions in clinical practice.**  (i) Description of the skills to be developed in this domain.   1. Use Information Technology to search for and retrieve dental literature |
| (ii) Teaching strategies to be used to develop these skills   1. Class discussions 2. Computer lab session |
| (iii) Methods of assessment of students numerical and communication skills   1. Group assignments |
| **e. Psychomotor Skills (if applicable)** |
| (i) Description of the psychomotor skills to be developed  Not applicable |
| (ii) Teaching strategies to be used to develop these skills  Not applicable |
| (iii) Methods of assessment of students psychomotor skills  Not applicable |

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| 5. Schedule of Assessment Tasks for Students During the Semester | | | |
| N | Assessment task | Week due (Date) | % of Total Assessment |
| 1 | Assignment 1: search for evidence (group) | 13/ 9 @ 9 p.m | 10% |
| 2 | Assignment 2: observational study appraisal (group) | 4/ 11 @ 2 p.m | 10% |
| 3 | Assignment 3: observational study appraisal (individual) | 11/ 11 session time | 10% |
| 4 | Assignment 4: RCT appraisal (group) | 2/ 12 @ 2 p.m | 10% |
| 5 | Assignment 5: RCT appraisal (individual) | 9/ 12 session time | 10% |
| 6 | Assignment 6: RCT appraisal (individual) | 10/ 12 session time | 10% |
| 7 | Exam 1 | 22/ 10 | 10% |
| 8 | Exam 2 | 26/ 11 | 10% |
| 9 | Final written exam | 28/ 12 to 12/ 1 | 20% |

**D. Student Support**

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| 1. Arrangements for availability of teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)   * Students can meet Dr Al-Ansari by requesting an appointment through his email [vdaa.dent@ud.edu.sa](mailto:vdaa.dent@ud.edu.sa) * Students can meet Dr ElTantawi by requesting an appointment through her email [mmtantawy@ud.edu.sa](mailto:mmtantawy@ud.edu.sa). Her office hours are Monday 9-11, Tuesday 9-11 |

##### E. Learning Resources

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| * + - 1. Required Text(s): Forrest JL, Miller SA, Overman PR, Newman MG. Evidence- based decision making: A translational guide for dental professionals. Philadelphia: Lippincott Williams & Wilkins, 2009. |
| * + - 1. Essential References : None |
| * + - 1. Recommended Books and Reference Material (Journals, Reports, etc) (Attach List):   Guyatt G, Rennie D, Meade MO, Cook DJ. User’s guides to the medical literature: Essentials of evidence based clinical practice. 2nd ed. JAMA and Archives Journals, American Medical Association. McGraw Hill Companies Inc., 2008. |
| * + - 1. Electronic Materials, Web Sites etc: None |
| * + - 1. Other learning material such as computer-based programs/CD, professional standards/ regulations: None |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.) |
| * + - 1. Accommodation (Lecture rooms, laboratories, etc.): class room with adequate seats for 35-40 students with chairs that can be arranged in a circle/ semi-circle. |
| * + - 1. Computing resources: Computer lab with access to the internet and to the digital library of the University of Dammam |
| * + - 1. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list) : None |

**G Course Evaluation and Improvement Processes**

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| * + - 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching: End of semester course and teacher evaluation survey. |
| * + - 1. Other Strategies for Evaluation of Teaching by the Instructor or by the Department: Student feedback during sessions. |
| * + - 1. Processes for Improvement of Teaching: student grades and feedback will be checked against course objectives and teaching team self-assessment and weaknesses acted upon in future improvement plans. |
| * + - 1. Processes for Verifying Standards of Student Achievement (eg. 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): Course content, assessment methods and students’ achievement will be periodically reviewed whenever possible with experts in subject matter visiting the College from national and international organizations. |
| * + - 1. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement: reviewing end of semester student feedback and grades with development of future plans for teaching course in next semesters/ academic years. |

**Appendix 1**

**Sessions Schedule: Tuesday 11-12, Wednesday 10-11**

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| N | Date | Content | Instructor |
| 1 | Tuesday 2/ 9 | Lecture: Introduction to course & Principles of Evidence Based Dentistry | Dr ElTantawi |
| 2 | Wednesday 3/ 9 | Lecture and exercise: Formulation of PICO question | Dr ElTantawi |
| 3 | Tuesday 9/ 9 | Lecture: Searching for evidence | Dr ElTantawi |
| 4 | Wednesday 10/ 9 | Exercise: searching for evidence | Dr ElTantawi |
| 5 | Tuesday 16/ 9 | Assignment 1, groups: Search for evidence (discussion) | Dr ElTantawi |
| 6 | Wednesday 17/ 9 | Assignment 1, groups: Search for evidence (discussion) | Dr ElTantawi |
| 7 | Wednesday 24/ 9 | Lecture: Risk and causality | Dr ElTantawi |
| 8 | Tuesday 14/ 10 | Lecture: Sources of error and bias | Dr ElTantawi |
| 9 | Wednesday 15/ 10 | Lecture: cross sectional, case control and cohort | Dr ElTantawi |
|  | Wednesday 22/ 10 | Exam 1 |  |
| 10 | Tuesday 28/ 10 | Lecture: cross sectional, case control and cohort | Dr ElTantawi |
| 11 | Wednesday 29/ 10 | Exercise: appraisal of observational studies 1 | Dr ElTantawi |
| 12 | Tuesday 4/ 11 | Exercise: appraisal of observational studies 2 | Dr ElTantawi |
| 13 | Wednesday 5/ 11 | Assignment 2, groups: observational study appraisal, discussion | Dr ElTantawi |
| 14 | Tuesday 11/ 11 | Assignment 3, individuals: observational study appraisal |  |
| 15 | Wednesday 12/ 11 | Lecture: Clinical trials (RCT) | Dr Al-Ansari |
| 16 | Tuesday 18/ 11 | Lecture: Clinical trials (RCT) | Dr Al-Ansari |
| 17 | Wednesday 19/ 11 | Exercise: appraisal of RCT1 | Dr Al-Ansari |
|  | Wednesday 26/ 11 | Exam 2 |  |
| 18 | Tuesday 2/ 12 | Exercise: appraisal of RCT2 | Dr Al-Ansari |
| 19 | Wednesday 3/ 12 | Assignment 4, groups: RCT appraisal discussion | Dr Al-Ansari |
| 20 | Tuesday 9/ 12 | Assignment 5, individuals: RCT appraisal |  |
| 21 | Wednesday 10/ 12 | Assignment 6, individuals: RCT appraisal |  |
| 22 | Tuesday 16/ 12 | Lecture: Systematic Reviews | Dr Al-Ansari |
| 23 | Wednesday 17/ 12 | Exercise: appraisal of Systematic Reviews | Dr Al-Ansari |

**Appendix 2**

**Evaluation methods**

**Topic weight in written exams**

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| Topic | % of marks allocated to topic over the three exams | N marks allocated to topic over the three exams |
| Principles of Evidence Based Dentistry | 4.3 | 2 |
| PICO question | 4.3 | 2 |
| Searching for evidence | 17.4 | 7 |
| Causality and Sources of errors | 8.7 | 3 |
| Observational studies | 26.1 | 10 |
| Clinical trials | 30.4 | 12 |
| Systematic Reviews | 8.7 | 4 |
| Total | 100% | 40 |

**Plagiarism**

For groups/ individuals whose assignments show evidence of plagiarism: group/ individual gets zero and next assignment’s mark is reduced by 50%.

**“Search for evidence” assignment evaluation criteria**

Your group is given a clinical scenario where a patient has a problem. You are required to formulate a PICO question and develop a strategy to search for evidence to answer the question you formulate. Each one of the six groups has a different scenario. The evaluation criteria for your group assignment are as follows

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| --- | --- |
| **Point** | **Mark** |
| 1. PICO components | 1 |
| 1. Type / category of question | 1 |
| 1. Search terms/ key words | 1 |
| 1. MeSH terms | 1 |
| 1. Limits: Articles types , Publication dates | 1 |
| 1. Use of Boolean operators | 1 |
| 1. Relevant items among first 30 search results | 1 |
| 1. Availability of full text articles among first 20 search results | 1 |
| 1. Secondary sources of evidence search | 2 |
| Total | 10 |

**Group appraisal assignment evaluation criteria**

The groups are given an article and the task is to appraise the study using the assigned form. All 10 marks are for properly filling the appraisal form. Marks for each question/ section are indicated in the form.

**Individual** **appraisal assignment evaluation**

The entire class receives article(s) and they are given to go through it at home. In the assigned sessions in class, each one appraises the study by selecting from available options the best/ correct answer and records that in a bubble sheet.