**National Commission for Academic Accreditation & Assessment**

**Course Specification**

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| Institution King Saud University |
| College/Department College of Dentistry  Department of Pediatric Dentistry and Orthodontics |

**A Course Identification and General Information**

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| 1. Course title and code: Cariology RDS 552 |
| 2. Credit hours One (1) |
| 3. Program(s) in which the course is offered.(If general elective available in many programs indicate this rather than list programs) Graduate program in pediatric dentistry |
| 4. Name of faculty member responsible for the course  Prof. Thakib A. Alshalan |
| 5. Level/year at which this course is offered  Second year |
| 6. Pre-requisites for this course (if any)  Nil |
| 7. Co-requisites for this course (if any)  Nil |
| 8. Location if not on main campus  In the college |

**B Objectives**

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| 1. Summary of the main learning outcomes for students enrolled in the course.  This course is designed to give students a strong background in cariology. At the end of the course, students should have a profound knowledge of cariology and be able to:   1. Discuss the history and theories of the aetiology of dental caries. 2. Identify and describe the role of oral microflora, diet and dental deposits in the pathogenesis of the disease. 3. Describe the histopathology and diagnosis of dental caries. 4. Discuss the epidemiology of dental caries, including the selective sites for caries attack and special population groups at risk for the disease. 5. Identify the various caries activity tests and evaluate their role in caries prediction. 6. Discuss the various preventive measures for dental caries. 7. Outline the steps in the therapeutic management of dental caries. |
| 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)  Cariology is a science with continuous research in different parts of the world. In this course, an updated published articles in the area of cariology will be presented and discussed. |

**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 | Contacthours |
| Introduction to Cariology | 1 | 1 |
| Theories of dental caries | 1 | 1 |
| Role of Saliva in the caries process | 1 | 1 |
| Microbiological aspects of dental plaque and dental caries | 3 | 3 |
| Diet and dental caries: Epidemiological evidence, Vipeholm study, Hopewood house experiment, Turku sugar study, hereditary fructose intolerance and dental caries, sugar and dental. (Lecture/ Seminar) |  |  |
| Epidemiology of dental caries. Clinical manifestations  of dental caries: Diagnosis, acute caries, chronic caries,  rampant caries, nursing caries, early childhood caries,  Secondary caries, recurrent caries. (Lecture/ Seminar) |  |  |
| Caries activity tests: Sensitivity, specificity, counts of lactobacilli and mutans streptococci, test of microbiology activity, biochemical tests, oral clearance, buffer capacity tests, caries activity test and caries prediction. (Lecture) |  |  |
| Control and prevention of dental caries I: Fluoride mechanism, fluoride in demineralization and re-  mineralization. Systemic fluorides: sources, amount  and effects of ingestion. Water fluoridation. Dental  fluorosis, topical fluorides. (Lecture/ Seminar) |  |  |
| Control and prevention of dental caries II: Primary, secondary and tertiary. Development of fissure sealants, dietary control, oral health education,  chewing sticks (miswak), dentifrice, toothbrush,  immunization. (Lecture/ Seminar) |  |  |
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| 2 Course components (total contact hours per semester): | | | | |
| Lecture:  (0) | Tutorial:  (0) | Laboratory  (0) | Practical/Field work/Internship  (0) | Other: Seminar  (1) |

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| 3. Additional private study/learning hours expected for students per week. (This should be an average for the semester not a specific requirement in each week)  Nil |

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| 4. Development of Learning Outcomes in Domains of Learning  For each of the domains of learning shown below indicate:   * A brief summary of the knowledge or skill the course is intended to develop; * A description of the teaching strategies to be used in the course to develop that knowledge or skill; * The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned. |
| **a. Knowledge** |
| (i) Description of the knowledge to be acquired |
| (ii) Teaching strategies to be used to develop that knowledge |
| (iii) Methods of assessment of knowledge acquired |
| **b. Cognitive Skills** |
| (i) Description of cognitive skills to be developed |
| (ii) Teaching strategies to be used to develop these cognitive skills |
| (iii) Methods of assessment of students cognitive skills |
| **c. Interpersonal Skills and Responsibility** |
| (i) Description of the interpersonal skills and capacity to carry responsibility to be developed |
| (ii) Teaching strategies to be used to develop these skills and abilities |
| (iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility |
| **d. Communication, Information Technology and Numerical Skills** |
| (i) Description of the skills to be developed in this domain. |
| (ii) Teaching strategies to be used to develop these skills |
| (iii) Methods of assessment of students numerical and communication skills |
| **e. Psychomotor Skills (if applicable)** |
| (i) Description of the psychomotor skills to be developed and the level of performance required |
| (ii) Teaching strategies to be used to develop these skills |
| (iii) Methods of assessment of students psychomotor skills |

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| 5. Schedule of Assessment Tasks for Students During the Semester | | | |
| Assessment | Assessment task (eg. essay, test, group project, examination etc.) | Week due | Proportion of Final Assessment |
| 1 | Presentation / weekly | Weekly |  |
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**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) |

##### E Learning Resources

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| 1. Required Text(s) |
| 2. Essential References |
| 3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) |
| 4-.Electronic Materials, Web Sites etc |
| 5- Other learning material such as computer-based programs/CD, professional standards/regulations |

**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.) |
| 2. Computing resources |
| 3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list) |

**G Course Evaluation and Improvement Processes**

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching |
| 2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department |
| 3 Processes for Improvement of Teaching |
| 4. 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) |
| 5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. |