**Kingdom of Saudi Arabia**

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

**Department Of Restorative Dental Science**

**Dental Morphology**

**Course Specifications**

**(CS)**

**2nd Semester**

**2013 – 2014 G (1434 -1435 H)**

**Course Coordinator:** Dr Rasha N AlSheikh

**Course Specifications**

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| Institution University of Dammam Jan 2014 |
| College/Department College of Dentistry, Restorative Dental Science Department |

**A. Course Identification and General Information**

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| 1. Course title and code:  Dental Morphology (RDS-232) |
| 2. Credit hours 3 Hrs |
| 3. Program(s) in which the course is offered.  Bachelor of Dental Surgery |
| 4. Name of faculty member responsible for the course  Dr. Rasha Numan AlSheikh |
| 5. Level/year at which this course is offered  2nd year – 2nd semester |
| 6. Pre-requisites for this course (if any)  BIOL 102; ENGL 101: CHEM 112; DTEDU 111; PHYS 122; DTEDU 121; ENGL 132 |
| 7. Co-requisites for this course (if any)  Non |
| 8. Location if not on main campus  College of Dentistry |
| 9. Mode of Instruction (mark all that apply)  a. Traditional classroom What percentage?  b. Blended (traditional and online) √ What percentage? 50%  c. e-learning What percentage?  d. Correspondence What percentage?  f. Other √ What percentage? 50%  Comments: |

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| **Participating Faculty Members Info:** |

**B. Objectives**

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| 1. Summary of the main learning outcomes for students enrolled in the course.   This course is the first pre-clinical operative course. Dental anatomy and morphology provides the student with the basic didactic knowledge and technical skills prerequisites for more advanced preclinical courses follow in restorative dentistry. |
| 2. Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)  - Dental anatomy, soft ware  - The introduction of the wax-build up in addition to carving technique. |

**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/ including lab |
| Introduction to Dental Morphology | | | | 1 | | 4 |
| Comparative dental anatomy and geometry | | | | 1 | | 4 |
| The permanent maxillary central and lateral incisors | | | | 1 | | 4 |
| Dental form and function | | | | 1 | | 4 |
| The permanent mandibular central and lateral incisors | | | | 1 | | 4 |
| The permanent maxillary and mandibular canine | | | | 1 | | 4 |
| The permanent maxillary 1st & 2nd premolars | | | | 1 | | 4 |
| The permanent mandibular 1st & 2nd premolar | | | | 1 | | 4 |
| The permanent maxillary 1st & 2nd molar | | | | 1 | | 4 |
| The permanent mandibular 1st & 2nd molar | | | | 1 | | 4 |
| The permanent maxillary and mandibular 3rd molar. | | | | 1 | | 4 |
| Deciduous teeth | | | | 1 | | 4 |
| Pulp chamber and canals | | | | 1 | | 4 |
| Teeth articulation | | | | 1 | | 4 |
| Revision | | | | 1 | | 4 |
| **Lectures Schedule** | | | |  | |  |
| **Date** | | **Time** | **Title** | **Objectives** | | **ILO’s** | | |
| 27/01/14 | | 8- 8:50 am | Introduction to Dental Morphology | * Nomenclature (different part of the teeth and anatomical land marks, permanent and deciduous teeth). * Numbering of teeth. * Four tissue of the tooth (enamel, dentin, cementum and pulp). * Anatomic Vs clinical tooth crown. * Division into thirds, line angels and point angles. * Measurements of teeth. | | * List the teeth each by its number and position. * Describe the different tissues of teeth. * Describe the anatomical feature and measurements of each tooth in the oral cavity. * Recite the thirds, line angles and point angles of each tooth. | | |
| 9- 9:50 am |
| 03/02/14 | | 8- 8:50 am | Comparative dental anatomy and geometry | * Geometries of crown outlines:   - Facial and lingual aspect of teeth.  - Mesial and distal aspects of anterior teeth.  - Mesial and distal aspects of maxillary posterior teeth.  - Mesial and distal aspect of Mandibular posterior teeth.   * Teeth alignment and contacts:   - Iterproximal form.  - Root form.  - Occlusal curvature. | | * Analyze the different outline of different aspects of teeth and the difference between, upper and lower teeth, posterior and anterior teeth, in-between anterior teeth and in-between posterior teeth. * Identify teeth position and alignment in relation to occlusion and to each other tooth. | | |
| 9- 9:50 am |
| 10/02/14 | | 8- 8:50 am | The permanent maxillary central and lateral incisors | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | | * List the Numbering and position, eruption time of maxillary central and lateral tooth. * Analyze the General geometry and characteristics of maxillary lateral and central incisors. * Describe in detailed description of maxillary lateral and central incisor from all the aspects (including the root). With notifying any anatomical variation might be present if there. | | |
| 9- 9:50 am |
| 17/02/14 | | 8- 8:50 am | Dental form and function | * Form follows function. * Physiological form of teeth and the periodontium. * Fundamental curvatures. * Proximal contact areas. * Interproximal spaces and embrasures (occlusal, labial/buccal, lingual/palatal, gingival). * Facial and lingual contours. * Gingival attachments. | | * Describe the relation and impact of teeth form on their function. * Assess the outline of each tooth and the influence on the health and function of adjacent, opposing teeth, periodontum and the oral health in general. * Design the alignment of teeth, contact, embrasures contours and gingival attachment. | | |
| 9- 9:50 am |
| 24/02/14 | | 8- 8:50 am | The permanent mandibular central and lateral incisors | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | | * List the Numbering and position, eruption time of each tooth. * Analyze the General geometry and characteristics of each tooth. * Describe in detailed description of each tooth from all the aspects (including the root). With notifying any anatomical variation might be present if there. | | |
| 9- 9:50 am |
| 03/03/14 | | 8- 8:50 am | The permanent maxillary and mandibular canine | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | |
| 9- 9:50 am |
| 10/03/14 | | 8- 8:50 am | The permanent maxillary 1st & 2nd premolars | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | |
| 9- 9:50 am |
| 17/03/14 | | 8- 8:50 am | The permanent mandibular 1st & 2nd premolar | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | |
| 9- 9:50 am |
| 07/04/14 | | 8- 8:50 am | The permanent maxillary 1st & 2nd molar | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | |
| 9- 9:50 am |
| 14/04/14 | | 8- 8:50 am | The permanent mandibular 1st & 2nd molar | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there. | |
| 9- 9:50 am |
| 21/04/14 | | 8- 8:50 am | The permanent maxillary and mandibular 3rd molar. | * Numbering and position, eruption time table. * General geometry and characteristics. * Detailed description of the tooth from all the aspects (including the root). * Any anatomical variation might be present if there | |
| 9- 9:50 am |
| 28/04/14 | | 8- 8:50 am | Deciduous teeth | * Importance of primary teeth. * Brief life cycle. * Nomenclature. * Major contrast between primary and permanent teeth. * Brief description of each primary tooth. | | * Revise the importance of the deciduous dentition. * List each deciduous tooth according to its number and position in the oral cavity. * Compare the geometry and anatomical feature of deciduous teeth versus permanent. * Describe in detailed description of each deciduous tooth from all the aspects (including the root). With notifying any anatomical variation might be present if there. | | |
| 9- 9:50 am |
| 05/05/14 | | 8- 8:50 am | Pulp chamber and canals | * Classification. * Radiographs. * Demarcation of pulp cavity and canals, horns and foramen. * Clinical application. * Description of the pulp cavities of the maxillary teeth. * Description of the pulp cavities of the Mandibular teeth. | | * List the different classification of the pulp and root canal systems. * Analyze the radiographic finding in regards to pulp chamber and canals. * Describe in details the pulp chamber and canal space demarcation for each group of teeth. | | |
| 9- 9:50 am |
| 12/05/14 | | 8- 8:50 am | Teeth articulation | * Concept of articulation and occlusion. * Teeth articulation. * Cusp, fossa, and marginal ridge relations. * Lateral occlusion relationship. * Normal occlusion. * Centric occlusion. * Primary occlusion. | | * Discuss the concept of articulation and its importance. * Describe each tooth position in relation to occlusion. * Differentiate between normal and abnormal occlusion, and list the different classification. | | |
| 9- 9:50 am |
| 19/05/14 | | 8- 9:50 am | Revision |  | |  | | |

Add lecture outline

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| 2. Course components (total contact hours and credits per semester): | | | | | | |
|  | Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| Contact  Hours | 30 |  | 30 |  |  | 60 |
| Credit | 2 |  | 1 |  |  | 3 |

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

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

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|  | **NQF Learning Domains**  **And Course Learning Outcomes** | **Course Teaching**  **Strategies** | **Course Assessment**  **Methods** |
| **1.0** | **Knowledge** | | |
| 1.1 | * Differentiate between the different dental anatomical landmarks. | * Lectures. * Laboratory discussions. | * Two Quizzes. * OSCE exam. * Drawing assignments. * Final exams composed of MCQs & essays. |
| 1.2 | * Explain the importance of different anatomical features and their function. |
|  | * Sort teeth into different groups according to form and function. |
|  | * List the chronology for permanent and deciduous teeth. |
|  | * Describe the form and outline of each surface of each permanent tooth, as well as their root number and form. |
|  | * Differentiate between deciduous and permanent corresponding teeth. |
|  | * Describe form of the pulp chamber and root canal form for each permanent tooth. |
|  | * Analyze the occlusion and function of teeth. |
| **2.0** | **Cognitive Skills** | | |
| 2.1 | * Differentiate key findings. | * Lectures. * Demonstration. * Laboratory practice. | * Graded Quizzes * Continuous Practical Assessment * Carving and drawing assignments. * Final exams composed of MCQs and essays. * Graded Achieved Requirements. * OSCE exam. |
| 2.2 | * Classify the teeth into their functional groups. |
| 2.3 | * Nominate the teeth according to different notation system. |
| 2.4 | * Interpret facts, compare and contrast different teeth groups. |
| 2.5 | * Draw and carve teeth accurately. |
| **3.0** | **Interpersonal Skills & Responsibility** | | |
| 3.1 | * Responsibility for self-learning | * Laboratory demonstration and group work weekly. * Assigning work to be completed on schedule. | * Observation and Continuous Assessment by the Instructors. * Laboratory assignments. |
| 3.2 | * Manage time properly. |
| 3.3 | * Experience initial and personal responsibility. |
| **4.0** | **Communication, Information Technology, Numerical** | | |
| 4.1 | * Communicate effectively and respectful with staff and colleagues | * Assigning work to be completed on schedule. * Topic presentation with audience discussion & feedback. | * Laboratory weekly practice. * Evaluation of student behavior by instructors. |
| 4.2 | * Work as part of the team. |
| 4.3 | * Acquire professional and respectful manner in the lab, lecture rooms and outside. |
| **5.0** | **Psychomotor** | | |
| 5.1 | * Carve each assigned tooth accurately | * Laboratory demonstration and group work weekly. * Assigning work to be completed on schedule. | * Continuous Practical Assessment * Carving and drawing assignments. * Final practical exams. |
| 5.2 | * Draw each tooth accurately |

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| 5. Schedule of Assessment Tasks for Students During the Semester | | | | |
|  | Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.) | Week Due | Proportion of Total Assessment | |
| 1 | Exam 1 | 5 | 10% | Continuous Assessment  60% |
| 2 | First Practical Exam | 8 | 10% |
| 3 | Exam 2 | 9 | 10% |
| 4 | Weekly practical requirement | Weekly starting week 3 | 25% |
| 5 | OSCE EXAM | 15 | 5% |
| 6 | Final Practical Exam | 15 | 10% | Final Assessment  40% |
| 7 | Final Written Exam | 17 | 30% |

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| **General Rules**  In order to pass the course, the student should achieve a cumulative minimum of 60% in the didactic component as well as a cumulative minimum of 60% in the clinical component  Student must score a minimum of 60% in clinical requirements in order to sit in the final written examination  The students will not be awarded marks for attendance  Student with an absence of 25% or more will not be allowed to sit for the final examination, and there for would be required to repeat the course  **Laboratory Assignment Rules**  Each week students are required to submit drawing and carved/waxed-up tooth practiced the week before.  Late submission is subjected to grade-point deduction. |

**D. Student Academic Counseling and 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)   * All faculty are available during the scheduled laboratory session * Each faculty announce 2-hrs twice weekly * Scheduled online discussing sessions. |

##### **E. Learning Resources**

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| 1. Required Text(s) |
| 1. Essential References  * Wheeler’s, Dental Anatomy, Physiology and Occlusion \_ 9th Edition (2010) by Stanley J. Nelson and Major M. Ash. * Woelfel’s, Dental anatomy\_ 8th edition (2010) by Rickne C. Scheid and Gabriela Wesis. |
| 1. Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)  * Illustrated Dental Embryology, Histology and Anatomy \_ 3rd Edition (2011) by Mary Bath-Balogh and Margaret J. Fehrenbach. |
| 1. Electronic Materials, Web Sites etc  * Additional resources provided by the Faculty. |
| 1. 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.)   * Lecture room * Laboratory |
| 2. Computing resources   * Software license * Computer room |
| 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 * Faculty e-mails are provided * Course evaluation questioner |
| * 1. Other Strategies for Evaluation of Teaching by the Instructor or by the Department * Self-Assessments statistics * Course evaluation questioner |
| * 1. Processes for Improvement of Teaching * e-learning supporting virtual classes and clinics * Periodic statistical evaluation of student performance in the clinic |
| * 1. Processes for Verifying Standards of Student Achievement * Clinical-performance evaluation weekly * Assignment evaluation * Periodic statistical evaluation of student performance in the clinic * Exams and quizzes * Hands-on assessments |
| * 1. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.   The course is evaluated via:   * Course evaluation questioner * Faculty peers feed back * Feedback is collected and statistically analysed by the quality deanship, a report then is sent to the department and the course coordinator. The department chair then meet with the course coordinator and the faculty if needed to suggest improvements needed then final approval. |

**Faculty or Teaching Staff: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

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

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