**National Commission for Academic Accreditation & Assessment**

**Course Specification**

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| Institution: University of Dammam |
| College/Department : College of Dentistry/Substitutive Dental Sciences |

**A Course Identification and General Information**

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| 1. Course title and code:Introduction to Preclinical Removable Partial and Complete Prosthodontics (SDEN 361) |
| 2. Credit hours **6** |
| 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. Shaimaa Fouda |
| 5. Level/year at which this course is offered: Third year, first and second semesters. |
| 6. Pre-requisites for this course (if any):   * RDS 342: Dental Biomaterial Science * RDS 232: Dental Morphology * RDS 231: Basic Dental Material Sciences |
| 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.   This course is an introduction to Removable Prosthodontics based on theoretical (didactic) and practical components. After completing this course the students are expected to understand the aims and objectives of denture construction and being able to fabricate complete and partial dentures in the laboratory. Denture supporting areas in both the maxilla and the mandible will be illustrated. Methods of pouring dental casts, custom tray and record block construction, as well as setting of teeth and denture processing will be demonstrated. |
| 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)   * Motivate the students for peer seminars and group study. * Interactive usage of the blackboard through given assignments. * Increasing the number of student’ assignments and formative assessment to drive their learning. |

**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 Complete Denture Prosthodontics. | | | | | 1 | 2 |
| Oral Anatomy in Relation to Maxillary Complete Denture. | | | | | ½ | 1 |
| Oral Anatomy in Relation to Mandibular Complete Denture. | | | | | ½ | 1 |
| Stock Impression Trays and Construction of Diagnostic Casts. | | | | | ½ | 1 |
| Custom Impression Trays and Construction of Master Casts. | | | | | ½ | 1 |
| Record Bases and Occlusal Rims | | | | | ½ | 1 |
| Mandibular Positions and Mandibular Movements. | | | | | 1 ½ | 3 |
| Articulators and face bows. | | | | | ½ | 1 |
| Jaw relations, Introduction to Occlusion | | | | | 1 ½ | 3 |
| Selection of Artificial Teeth, Arrangement of Teeth. | | | | | 1 | 2 |
| Posterior Palatal Seal. Relief in Complete Denture. | | | | | 1 | 2 |
| Complete Denture Waxing and Flasking. | | | | | 1 | 2 |
| Denture Processing and Deflasking. | | | | | ½ | 1 |
| Finishing of Complete Dentures. | | | | | ½ | 1 |
| Repair of Complete Denture. | | | | | ½ | 1 |
| Revision | | | | | ½ | 1 |
| Introduction to Removable Partial Prosthodontics. | | | | | 1 | 1 |
| Classification of Partial Edentulism. | | | | | 1 | 1 |
| Surveying | | | | | 1 | 1 |
| Guiding planes | | | | | 1 | 1 |
| Component Parts of RPD | | | | | 1 | 1 |
| Denture base & artificial teeth | | | | | 1 | 1 |
| Occlusal rests and similar Components | | | | | 1 | 1 |
| Direct retainers | | | | | 1 | 1 |
| Indirect retainers. | | | | | 1 | 1 |
| Major Connectors | | | | | 1 | 1 |
| Minor Connectors | | | | | 1 | 1 |
| Introduction to Mechanical Principles of RPD | | | | | 1 | 1 |
| Stress Breakers | | | | | 1 | 1 |
| Designing RPD | | | | | 1 | 1 |
| Laboratory Procedures for Framework Construction | | | | | 1 | 1 |
| 2 Course components (total contact hours per semester): | | | | | | |
| Lecture: 39 | Tutorial: | Laboratory: 45 | Practical/Field work/Internship | Seminars: 6 | | |

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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) |

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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  By the end of this course the student should be able to:  **I .30. Describe the basic principles of restoring partially and completely edentulous patients.**  I.30.1. Discuss the anatomy of the edentulous jaws and the oral structures that surround the maxillary and mandibular dentures.  I.30.2. Discuss the physiology of the masticatory mandibular movements  I.30.4. Describe the procedures of fabricating special trays and obtain master casts.  I.30.5. Discuss the uses of record base and occlusal rim.  I.30.6. Discuss the technique of recording the maxillary jaw relation to the tempromandibular joint using the face bow transfer records.  I.30.7. Discuss the criteria for selecting and setting artificial teeth.  I.30.8. Explain the process of complete denture flasking, wax elimination, polymerization, de-flasking and finishing.  I.30.28. Describe uses, parts and types of articulators.   1. Recognize stock impression trays and construction of preliminary cast. 2. Describe procedures for denture repair, adding clasps and relining. 3. Recall the methods of determining posterior palatal seal. 4. Describe the process of repairing, relining and rebasing broken and damaged dentures**.** 5. Describe classification of partial edentulism and principles of RPD. 6. Describe components and mechanical principles of RPD. 7. Describe the laboratory procedures for fabrication of RPD. |
| (ii) Teaching strategies to be used to develop that knowledge   * Lectures * Small group discussion * Assignments |
| (iii) Methods of assessment of knowledge acquired   * Short-answer questions * Multiple choice questions (MCQs) * Discussion and evaluation of assigned seminars |
| **b. Cognitive Skills** |
| 1. Description of cognitive skills to be developed   **II.13. Analyze occlusion and para-functional habits.**  II.13.7. Recognize proper occlusion and inter-teeth relationship   1. Select appropriate instruments for various denture construction procedures. 2. Assess different cast with partial and completely edentulous arches. 3. Recognize proper occlusion and inter-teeth relationship. |
| (ii) Teaching strategies to be used to develop these cognitive skills   * Lectures * Small group discussion. * Assignments |
| (iii) Methods of assessment of students cognitive skills   * Short-answer Questions. * Multiple choice questions (MCQs). * Discussion and evaluation of assigned seminars. |
| **c. Interpersonal Skills and Responsibility** |
| 1. Description of the interpersonal skills and capacity to carry responsibility to be developed 2. Practice skills of working in a team. 3. Incorporate ergonomic principles into the performance of dental procedures to promote productivity. 4. Employ quality control and quality improvement principles in monitoring self- and- practice performance. |
| (ii) Teaching strategies to be used to develop these skills and abilities   * Student-directed learning**.** |
| (iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility   * Structured direct observation with checklists for rating by faculty members. |
| **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  **III.14. Perform various prosthodontic procedures including removable and fixed prosthodontics.**    III.14.1. Fabricate primary and secondary casts for removable prosthodontic appliances.  III.14.3. Fabricate partial and complete dentures.  III.14.4. Perform artificial teeth setting  III.14.5. Mount the maxillary and mandibular casts.  Perform the laboratory procedures required to fabricate a complete denture Perform various techniques of special tray construction.Manage fabrication of record blocks. Perform artificial teeth setting.  Manage denture processing and finishing. |
| (ii) Teaching strategies to be used to develop these skills   * Demonstrations * Supervised practice * Self-practice |
| (iii) Methods of assessment of students psychomotor skills   * Continuous assessments with checklists for rating by faculty members and students for self-evaluation. * Lab examination. * Practical requirements |

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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 | First didactic exam | 6th week | 10% |
| 2 | Lab exam1 | 7th week | 5% |
| 3 | Second didactic exam | 11th week | 10% |
| 4 | Lab exam 2 | 11th week | 5% |
| 5 | Final didactic exam | 15th week | 30% |
| 6 | Final lab exam | 15th week | 10 % |
| 8 | Seminars | 12-15th week | 5% |
| 9 | Continuous Laboratory assessment | All lab sessions | 15% |
| 10 | Requirements | 15th week | 10% |

**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)   1. Each teaching staff of the course is available for student consultations and academic advice 4hrs / week during assigned office hours. 2. The discussion board in the blackboard and the university email system are formal ways that are available for students to communicate with the course director. |

##### E Learning Resources

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| 1. Required Text(s)   1. Principles of Complete Denture Prosthodontics. M. Hassaballa and Yousef Talic. King Fahd National Library, 2004.  2. Stewart’s Clinical Removable Prosthodontics” by Phoenix, Magna, and DeFreest, 3rd Ed., Quintessence, 2003. |
| 2. Essential References  1- Boucher’s Prosthodontic Treatment for Edentulous Patients,. Zarb GA Bolender CL, 12th Ed., Elsevier. 2004.  2- McCracken's Removable Partial Prosthodontics, by Carr McGivney, Brown, 11th Ed., Elesiver, 2005. |
| 3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) |
| 4-.Electronic Materials, Web Sites etc   1. Elesiver. 2. PubMed Database for Searching the Dental & Biomedical Literature |
| 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.)   1. Lecture room with data show projector 2. Phantom Head Lab 3. Prosthodontic Laboratory |
| 2. Computing resources |
| 3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)   1. Phantom head Simulation equipments. 2. Prosthodontic laboratory equipments. 3. Dental Materials used for denture construction. |

**G Course Evaluation and Improvement Processes**

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching   * Exam Analysis report * Course evaluation survey(Students’ survey conducted by the College Quality Unit). |
| 2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department   * Faculty annual report. * Annual faculty self-evaluation. * Peer evaluations using check list. |
| 3 Processes for Improvement of Teaching  Attending workshops in the staff development program that is conducted either by the College of Dentistry or the Medical Education Unit, University of Dammam. |
| 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)   * Check marking of student works by an independent staff member. |
| 5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.   * Course report reflects both the course outcome in term of students’ performance, and the process in term of the difficulties that faced the course implementation. * Plans are put for improvement considering students’ survey and their opinions in the feed-back. |

**Course Lectures:**

Lecture time: (8-9)am and (1-2) pm

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| **Date** | **Time** | **Place** | **Gender** |
| **Sunday** | **8 am** | **New campus** | **Male** |
| **Monday** | **1 pm** | **Old campus** | **Female** |
| **Wednesday** | **8 am** | **Old campus** | **Female** |
| **Thursday** | **8 am** | **New campus** | **Male** |

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| Lecture No. | Week | Date | Topics | Lecturer |
|  | 1st | Sun 31/8/2014 Mon 1/9/2014 | Introduction to the Course. | Dr. Shaimaa |
|  | 1st | Wed 3/9  Thurs 4/9 | Introduction to Complete Denture Prosthodontics. | Dr. Ali |
|  | 2nd | Sun 7/9  Mon 8/9 | Maxillary anatomical landmarks | Dr. Zahid |
|  | 2nd | Wed 10/9  Thurs 11/9 | Mandibular anatomical landmarks. | Dr. Zahid |
|  | 3rd | Sun 14/9  Mon 15/9 | Stock Impression Trays, Construction of Diagnostic Casts,. | Dr. Shaimaa |
|  | 3rd | Wed 17/9  Thurs 18/9 | Custom Impression Trays &Construction of Master Casts | Dr. Shaimaa |
|  | 4th | Sun 21/9  Mon 22/9 | Record Bases and Occlusal Rims | Dr. Imran |
|  | 4th | Wed 24/9  Thurs 25/9 | Mandibular Positions and Mandibular Movements I | Dr. Amal |
|  | 5th | Sun 12/10  Mon 13/10 | Mandibular Positions and Mandibular Movements II | Dr. Amal |
|  | 5th | Wed 15/10  Thurs 16/10 | Mandibular Positions and Mandibular Movements III | Dr. Amal |
|  | 6th | Sun 19/10  Mon 20/10 | Introduction to Occlusion and Jaw relations I | Dr. Saber |
|  | 6th | Wed 22/10  Thurs 23/10 | Articulators and Face bows | Dr. Jain |
|  | 7th | Sun 26/10  Mon 27/10 | Introduction to Occlusion and Jaw relations II | Dr. Saber |
|  | 7th | Wed 29/10  Thurs 30/10 | Selection of Artificial Teeth. | Dr. Jain |
|  | 8th | Sun 2/11  Mon 3/11 | Introduction to Occlusion and Jaw relations III | Dr. Saber |
|  | 8th | Wed 5/11  Thurs 6/11 | Arrangement of Anterior and Posterior Teeth. | Dr. Jain |
|  | 9th | Sun 9/11  Mon 10/11 | Posterior Palatal Seal and Relief in Complete Dentures I. | Dr. Ali |
|  | 9th | Wed 12/11  Thurs 13/11 | Posterior Palatal Seal and Relief in Complete Dentures II. | Dr. Ali |
|  | 10th | Sun 16/11  Mon 17/11 | Complete Denture Waxing and Flasking I. | Dr. Zahid |
|  | 10th | Wed 19/11  Thurs 20/11 | Complete Denture Waxing and Flasking II. | Dr. Zahid |
|  | 11th | Sun 23/11  Mon 24/11 | Denture Processing and Deflasking. | Dr. Gad |
|  | 11th | Wed 26/11  Thurs 27/11 | Finishing of Complete Dentures. | Dr. Imran |
|  | 12th | Sun 30/11  Mon 1/12 | Repair of Complete Denture. | Dr. Gad |
|  | 12th | Wed 3/12  Thurs 4/12 | Seminars |  |
|  | 13th | Sun 7/12  Mon 8/12 | Seminars |  |
|  | 13th | Wed 10/12  Thurs 11/12 | Seminars |  |
|  | 14th | Sun 14/12  Mon 15/12 | Seminars |  |
|  | 14th | Wed 17/12  Thurs 18/12 | Seminars |  |
|  | 15th | Sun 21/12  Mon 22/12 | Seminars |  |
|  | 15th | Wed 24/12  Thurs 25/12 | Revision and course feedback. | Dr. Ali |