**King Saud University**

**College of Dentistry**

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| **Course Specification** | | |
| **Course Title:** | **Pre-Clinical Removable Prosthodontics** | |
| **Course Code:** | **323 SDS** | |
| **Course Director:**  **Course Co-Director:** | **Dr. Ibraheem Alshiddi** | |
| **Dr. Rashid Habib** | |
| **Department:** | **Prosthetic Dental Science** | |
| **Academic Year** | **2012-2013** | |

**Course Specification form**

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| Institution             **King Saud University** |
| College/Department: College of Dentistry |

**A Course Identification and General Information**

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| 1. Course title and code:   **323 SDS**  Pre-Clinical Removable Prosthodontics |
| 1. Credit hours:   **Four (2L+2P)** |
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| 1. Name of faculty member responsible for the course   Dr. Ibraheem Alshiddi (Course Director - DUC) |
| 1. Level/year at which this course is offered:   Third Year Students |
| 1. Pre-requisites for this course (if any)   212 SDS Course |
| 1. Co-requisites for this course (if any) |
| 1. Location if not on main campus |

**B. Objectives**

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| 1.  Summary of the main learning outcomes for students enrolled in the course.  **Upon completion of this course the graduating student should be able to:**   1. **Demonstrate sound knowledge of the biological and technical aspects of complete and removable partial dentures and their integration with the clinical procedures which will be taught in the succeeding clinical prosthodontic courses.** 2. **Apply all the laboratory procedures related to the construction of complete dentures.** 3. **Identify and describe the various components of a removable partial denture.** 4. **Illustrate the basic knowledge of how to design a removable partial denture framework.** 5. **Apply the basic laboratory procedures related to the construction of the removable partial denture.** 6. **Identify the different materials, instruments and devices involved in the construction of complete dentures and removable partial dentures as well as their uses.** |
| 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)  **Future plans will be identified after implementing the course for one year** |

**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 | | | | | | | | |
| **1st Semester** | | | | | | | | |
| Topic | | | No of Weeks | | Contact hours | | | |
| Introduction to Prosthodontics and Principles for Complete Denture Prosthodontics*.* | | | 1 | | 1 | | | |
| Custom impression trays and construction of master casts. | | | 1 | | 1 | | | |
| Record blocks | | | 1 | | 1 | | | |
| Jaw relation terminology for the edentulous patient. | | | 1 | | 1 | | | |
| Introduction to Articulators | | | 1 | | 1 | | | |
| Mounting the casts on Hanau Articulator | | | 1 | | 1 | | | |
| Arrangement of Anterior Teeth. | | | 1 | | 1 | | | |
| Arrangement of Posterior Teeth. | | | 1 | | 1 | | | |
| Complete denture wax-up and flasking procedure. | | | 1 | | 1 | | | |
| Deflasking of complete dentures. | | | 1 | | 1 | | | |
| Principles of selective grinding, finishing, and polishing of the dentures. | | | 1 | | 1 | | | |
| Denture Repairs. | | | 1 | | 1 | | | |
| Clinical and Laboratory techniques in relining and rebasing | | | 1 | | 1 | | | |
| Revision | | | 1 | | 1 | | | |
| **2nd Semester** | | | | | | | | |
| **SECOND SEMESTER**  Types of Removable Partial Dentures and parts of a Removable Partial Denture and their functions | | | 1 | | 1 | | | |
| Classification of partially edentulous arches. | | | 1 | | 1 | | | |
| Surveying of partially edentulous casts. | | | 1 | | 1 | | | |
| Abutment teeth preparation (I. Posterior teeth preparation). | | | 1 | | 1 | | | |
| Abutment teeth preparation (II. Anterior teeth preparation). | | | 1 | | 1 | | | |
| Direct Retainers. (a. Intra-coronal direct retainers, b.Extra-coronal direct retainers: Suprabulge Direct Retainers) | | | 1 | | 1 | | | |
| Direct Retainers. (Infrabulge Direct Retainers) | | | 1 | | 1 | | | |
| Indirect Retainers. | | | 1 | | 1 | | | |
| Major Connector I.(• General Considerations • Mandibular Major Connectors. • Minor Connectors) | | | 1 | | 1 | | | |
| Major Connector I.(Maxillary Major Connectors) | | | 1 | | 1 | | | |
| Designing of removable partial denture and lab prescription or work authorization. | | | 1 | | 1 | | | |
| Laboratory procedures of making a conventional removable partial denture. | | | 1 | | 1 | | | |
| Denture base and teeth for removable partial dentures. | | | 1 | | 1 | | | |
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| 2. Course components (total contact hours per semester): | | | | | | | |
| Lecture:  **1 h/w** | Tutorial: | Practical/Fieldwork/Internship:  **2 h/w** | | | | | Other: |

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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)  **3 h/w** |   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** | | | |
| 1. Description of the knowledge to be acquired   **Upon completion of the course, the students should be able to:**   1. **Demonstrate sound knowledge of the biological and technical aspects of complete and removable partial dentures and their integration with the clinical procedures which will be taught in the succeeding clinical prosthodontic courses. (1.1 and 1.4)** 2. **Describe the various components of a removable partial denture.(1.4)** 3. **Name the different materials, instruments and devices involved in the construction of complete dentures and removable partial dentures as well as their uses.(1.4)** | | | |
| 1. Teaching strategies to be used to develop that knowledge 2. **Lectures** 3. **Assigned readings from textbooks** 4. **Supervised discussions during the pre-clinical simulation sessions** | | | |
| (iii)  Methods of assessment of knowledge acquired  **written Assessment** | | | |
| **b.  Cognitive Skills** | | | |
| (i)  Cognitive skills to be developed  1. Ability to think critically and analytically   1. **Apply all the laboratory procedures related to the construction of complete dentures.** 2. **Illustrate the basic knowledge of how to design a removable partial denture framework.(2.1)** 3. **Apply the basic laboratory procedures related to the construction of the removable partial denture.** 4. **Assess the end result of various laboratory procedures related to complete and removable partial dentures.** | | | |
| 1. Teaching strategies to be used to develop these cognitive skills  * **Close supervision supported by faculty-student interaction and feedback during laboratory sessions to judge the effect of a faulty laboratory procedure on the next step.** * **Case-based discussion utilizing information gathering to make an appropriate design for removable partial denture cases** * **Practical demonstration will be performed weekly and close supervision of students by instructors to assure application of the basic scientific knowledge** | | | |
| (iii)  Methods of assessment of students cognitive skills   * **Continuous assessment in pre-clinical sessions** * **Evaluation of students’ participation and involvement in design case**   **discussions** | | | |
| **c. Interpersonal Skills and Responsibility** | | | |
| 1. Description of the interpersonal skills and capacity to carry responsibility to be developed   **\* At the end of the course the student should be able to:**  **- Demonstrate neatness and cleanliness of the working field. (3.3)** | | | |
| (ii)  Teaching strategies to be used to develop these skills and abilities   * **Orientation for the students at the beginning of the course** * **Regular inputs before pre-clinical sessions** | | | |
| 1. Methods of assessment of students interpersonal skills and capacity to carry responsibility  * **Objective evaluation of students’ neatness and cleanliness as part of the practical continuous assessment** | | | |
| **d.   Communication, Information Technology and Numerical Skills** | | | |
| (i) Description of the skills to be developed in this domain.  - N/A | | | |
| (ii) Teaching strategies to be used to develop these skills  -N/A | | | |
| **e.  Psychomotor Skills (if applicable)** | | | |
| 1. Description of the psychomotor skills to be developed and the level of performance required   **The student should be able to…**   * **Coordinate manual dexterity and knowledge in laboratory procedures related to the construction of complete and removable partial dentures. (5.1)** * **Demonstrate eye-hand coordination to perform laboratory procedures related to the construction of complete and removable partial dentures (5.2)** | | | |
| (ii) Teaching strategies to be used to develop these skills   * **Visual demonstration of all laboratory procedures (Tell, Show, Do technique).** | | | |
| 1. Methods of assessment of students psychomotor skills  * **Assessment of all assigned practical projects on weekly basis** * **Practical assessments** | | | |
| 1. 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 |

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| **1.** | **Fabrication of maxillary custom tray for edentulous patient** | **3** | **0.33** |
| **2.** | **Preparation of bases plates (record bases)** | **4** | **0.33** |
| **3.** | **Fabrication of max. and man. record blocks** | **6** | **0.33** |
| **4.** | **First didactic assessment** | **7** | **10** |
| **5.** | **First Practical assessment** | **7** | **6** |
| **6.** | **Mounting of maxillary & mandibular casts on Hanau articulator** | **8** | **0.33** |
| **7.** | **Maxillary and mandibular teeth set-up** | **13** | **0.33** |
| **8.** | **Second didactic assessment** | **15** | **10** |
| **9.** | **Fabrication of mandibular custom tray for partially edentulous patient** | **18** | **0.33** |
| **10.** | **Second practical assessment** | **17** | **7** |
| **11.** | **Surveying of a cast** | **18** | **0.33** |
| **12.** | **Preparation of rest seats on posterior plaster teeth** | **19** | **0.33** |
| **13.** | **Preparation of rest seats on anterior plaster teeth** | **20** | **0.33** |
| **14.** | **Abutment teeth preparation on ivorine jaw model** | **23** | **0.33** |
| **15.** | **Surveying, designing, and prescription writing of casts #1 and #2** | **24** | **0.33** |
| **16.** | **Surveying, designing and prescription writing of casts #3 and #4** | **25** | **0.33** |
| **17.** | **Third didactic assessment** | **26** | **10** |
| **18.** | **Third practical assessment** | **26** | **6** |
| **19.** | **Fourth practical assessment** | **27** | **6** |
| **20.** | **Designing of a selected case and prescription writing** | **27** | **0.33** |
| **21.** | **Designing of a selected case and prescription writing** | **28** | **0.33** |
| **22.** | **Designing of a selected case and prescription writing** | **29** | **0.33** |
| **23.** | **Final practical exam** | **31** | **10** |
| **24.** | **Final written exam** |  | **30** |

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| Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)  **Each group of students is assigned to a particular faculty where he or she will provide academic counseling during his/her academic hours (two hours). Also, students can see the course director during the weekly assigned office hours (two hours) or through e-mail.** |

**E. Learning Resources**

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| 1. Required Text(s)   1. Hassaballa, M.H. and Talic, Y.F. Principles of Complete Denture Prosthodontics. 1st Edition. King Saud University-Academic Publishing and Press 2004. 2. Textbook of Complete Dentures. Rahn AO, Heartwell CM, 5th edition, 1992. 3. Dental Laboratory Procedures, Vol. 1 (Complete Dentures), Rudd and Morrow, 2nd Edition, 1986, The C.V. Mosby Co., St. Loius. 4. McCracken’s Removable Prosthodontics, 10th Edition 2000 by McGivney GP, Carr AB. The C.V. Mosby Co., St. Loius. 5. Phoenix, Rodney D.; Cagna, David R.; and DeFreest, Charles F., Stewart’s Clinical Removable Partial Prosthodontics, 3rd ed. 6. Dental Laboratory Procedures (Removable Partial Dentures) Morrow, Rudd, Eissman, Vol. III 2nd Edition, 1986. The C.V. Mosby Co., St. Loius. |
| 3. Essential References |
| 1. 1- 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.)   **- Lecture room (45 seats for female students)**  **- Laboratories (45 seats for female students and 7 faculty members)** |
| 1. Computing resources |
| 1. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list)  * **All instruments and materials are provided free of charge by the college store.**      |  |  | | --- | --- | | **No.** | **Material** | |  | **Rubber edentulous jaw model** | |  | **Partially edentulous jaw model with ivorine teeth** | |  | **Stock perforated trays for dentulous and edentulous arches** | |  | **Water bath** | |  | **Mechanical vibrators** | |  | **Cast trimmers** | |  | **Simple hinge articulator** | |  | **Mean-value articulator** | |  | **Semi-adjustable articulator (Hanau H2)** | |  | **Alcohol Torch** | |  | **Plastering stand** | |  | **Cast support** | |  | **Ear-bow** | |  | **Face-bow** | |  | **Trimming Knife** | |  | **Hot plate** | |  | **Wax knife** | |  | **Occlusal plane guide** | |  | **Occlusal plane plate** | |  | **Lecron carver** | |  | **Wax spatula no. 7** | |  | **Plaster knife** | |  | **VLC curing unit** | |  | **Artificial teeth** | |  | **Shade-guide** | |  | **Mold-guide** | |  | **Denture flask** | |  | **Dewaxing unit** | |  | **Pneumatic press** | |  | **Flask ejector** | |  | **Plaster saw** | |  | **Plaster scissors** | |  | **Rag wheel** | |  | **Arbor band** | |  | **Macro motor Straight Handpieces** | |  | **Bristle wheel brushes** | |  | **Felt cones** | |  | **Muslin buff wheel** | |  | **Ultrasonic bath** | |  | **Pressure pot** | |  | **Surveyors** | |  | **Diamond kit for RPD preparation:**   * + **Flame shape diamond**   + **Small round diamond**   + **Large round diamond**   + **Straight diamond** | |  | **Phantom laboratory with units and hand pieces** | |  | **Screw driver for changing teeth** | |  | **Tray adhesive for Alginate** | |  | **Alginate impression material** | |  | **Plaster spatulas** | |  | **Rubber bowls** | |  | **Dental plaster** | |  | **Dental stone** | |  | **Light-cured acrylic resin material for custom trays** | |  | **Baseplate wax** | |  | **Utility wax** | |  | **Sticky wax** | |  | **Boxing wax** | |  | **Inlay wax** | |  | **Acrylic burs (large)** | |  | **Acrylic burs (small)** | |  | **Ivory teeth** | |  | **Polymethyl methacrylate acrylic resin material** | |  | **Cellophane papers** | |  | **Polyvinyl siloxane impression material (regular)** | |  | **Adhesive for polyvinyl siloxane** | |  | **Painting brushes** | |  | **Articulating paper** | |  | **Articulating paper holder** | |  | **Pumice** | |  | **Bunsen burner** | |  | **Al-cote separating medium** | |  | **Vaseline (Petrolatum)** | |  | **Clay** | |  | **Superglue** | |  | **Cotton rolls** | |

**G.  Course Evaluation and Improvement Processes**

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| 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching  **1. Regular meetings with the course director**  **2. Course evaluation form by students (available on web site)** |
| 2.  Other Strategies for Evaluation of Teaching by the Instructor or by the Department   * **The course is reviewed periodically during the departmental meetings.** * **The course is reviewed periodically by the curriculum committee.** * **The course is reviewed annually by the course director based on the feedback from students in the previous year.** * **Through course report to the main accreditation committee in the college.** |
| 3. Processes for Improvement of Teaching   * **Attending workshops of the Deanship of Skills Development** * **Attending continuing dental education activities in the College, University, and in the Kingdom.** * **Attending international dental meetings** |
| 4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution) |
| 5.  Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.   -  **Students are evaluated in laboratory assessments by two independent**  **instructors followed by the course director. Evaluation is based on criteria**  **agreed upon by all instructors involved in the course. In case of big variation in**  **the mark of a student among instructors, a forth instructor is asked to evaluate**  **the laboratory project.**  - **Random rechecking of exams.** |