**King Saud University**

**College of Dentistry**

**POST Graduate IN PROGRAM**

**PROSTHODONTICs**

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| **COURSE SPECIFICATION** | | |
| Course Title: | **LABORATORY PROSTHODONTICS I** | |
| Course Code: | **SDS 514** | |
| Course Director: | **DR. WALED ALSHHRANI**  **DR. TALAL ALNASSAR** | |
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| Department: | **PROSTHETIC DENTAL SCIENCES** | |
| Academic Year | **2014-2015 (1435-1436)** | |

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

**A. Course Identification and General Information**

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| 1.  Course title and course title**: Laboratory Prosthodontics I (SDS 514)** |
| 2.  Credit hours:  **Two hours (One laboratory session per week for one semester)**. |
| 3.  Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs)  **Post Graduate Program in Prosthodontics** |
| 4.  Name of faculty member responsible for the course: **DR. WALED ALSHHRANI**  **DR. TALAL ALNASSAR** |
| 5.  Level/year at which this course is offered: **Postgraduate** **First Year** |
| 6.  Pre-requisites for this course (if any): **NA** |
| 7.  Co-requisites for this course (if any)**: NA** |
| 8.  Location if not on main campus: **DUC** |

**B.  Objectives**

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| 1.  Summary of the main learning outcomes for students enrolled in the course.  **This is a one-year course designed to familiarize graduate prosthodontic students with the basics of laboratory procedures integrated in the construction of various prosthetic restorations and to keep pace with the current developments in the field of Prosthodontics. Also, updates on dental implants and dental materials are organized as part of the course.**  **Upon completion of this course, the student will:**   1. **Understand and apply the basics of laboratory procedures integrated in the construction of various prosthetic restorations.** 2. **Develop the knowledge, skill and attitude necessary for performing and practicing quality prosthodontic laboratory work and enhance the students' abilities in esthetic dentistry.** 3. **Know the new and current developments in dental implants and dental materials in the field of Prosthodontics.** 4. **Know the new and current CAD/CAM systems at DUC (PROCERA®, CEREC®, Zirkonzahn® and AMANNGIRRBACH®)** |
| 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)   1. **Course objectives were adjusted to be in accordance with the new trends in prosthodontics.** 2. **Addition of combined practical sessions in which the student is requested to prepare and construct the provisional restoration at the same time to simulate the clinical environment.** 3. **A course evaluation form will be distributed to students by the end of each year.** 4. **Addition of sessions on materials update.** 5. **Introduction to newer technologies (CAD/CAM) in Prosthodontics** 6. **Addition of homework assignments.** 7. **Provision of new instruments for advanced procedures.** |

**C.  Course Description** (Note:  General description in the form to be used for the Bulletin or Handbook should be attached)

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| **SEMESTER II** |

| **No.** | | **Activity** | | | **No. of Weeks** | **Contact hours** | | |
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| **1** | | **Single Implant Impression Techniques (NobelReplace® NobelActive™, NobelSpeedy™Groovy )** | | | **1** | **3** | | |
| **2** | | **Single Implant Impression Techniques (Astra Tech Implant System™)** | | | **2** | **3** | | |
| **3** | | **Single Implant Impression Techniques (Straumann® Dental Implant System)** | | | **3** | **3** | | |
| **4** | | **Multiple implants Impression Techniques** | | | **4** | **3** | | |
| **5** | | **Screw-Retained Provisional Restorations** | | | **5** | **3** | | |
| **6** | | **Custom Abutments Designing – Wax Up** | | | **6** | **3** | | |
| **7** | | **Custom Abutments Designing (I) – CAD/CAM** | | | **7** | **3** | | |
| **8** | | **Custom Abutments Designing (II) – CAD/CAM** | | | **8** | **3** | | |
| **Mid-Second Semester Break** | | | | | | | | |
| **9** | | **Complete Fixed Denture (I) -** **NobelProcera®** | | | **9** | **3** | | |
| **10** | | **Complete Fixed Denture (II) - NobelProcera®** | | | **10** | **3** | | |
| **11** | | **Complete Fixed Denture (III) - NobelProcera®** | | | **11** | **3** | | |
| **12** | | **CAD/CAM Update I: CEREC Chairside Solutions** | | | **12** | **3** | | |
| **13** | | **CAD/CAM Update III: Zirkonzahn® CAD/CAM Systems** | | | **13** | **3** | | |
| **14** | | **LOCATOR® (ZEST ANCHORS)** | | | **14** | **3** | | |
| **Total hours with assessment** | | | | | **14** | **42** | | |
| 2. Course components (total contact hours per semester): | | | | | | |
| Lecture: | | Tutorial: | Practical/Fieldwork/Internship: **42** | | | 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)  **14 hours per semester** |

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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;   * 1. **Be able to do all laboratory procedures associated with prosthesis fabrication.**   2. **To successfully assess various laboratory work steps.**   3. **Be aware of the new and current materials in the dental market and the criteria followed for selection.**            A description of the teaching strategies to be used in the course to develop that knowledge or skill;  **1. Problem-based practical sessions**  **2. Scenarios and demonstrations**  **3. Hands-on sessions**  **4. Homework assignments**  **5. Dental materials update sessions**           The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.  **1. Observation and close supervision**  **2. Assessment of practical procedures**  **3. Assessment of homework assignments** | | | |
| **a.  Knowledge** | | | |
| 1. Description of the knowledge to be acquired:   **The student should be able to...**   1. **Identify the principles applicable to the laboratory procedures associated with prosthesis fabrication.** 2. **Describe the basic concepts behind each laboratory procedure done.** 3. **Know the current materials in the dental market and the criteria followed for selection.** | | | |
| (ii)  Teaching strategies to be used to develop that knowledge  **1. Problem-based practical sessions**  **2. Scenarios and demonstrations**  **3. Hands-on sessions**  **4. Homework assignments**  **5. Dental materials update sessions** | | | |
| (iii)  Methods of assessment of knowledge acquired   1. **Continuous assessment of practical procedures** 2. **Assessment during discussions** 3. **Assessment of homework assignments** | | | |
| **b.  Cognitive Skills** | | | |
| (i)  Cognitive skills to be developed  **The student should be able to:**   1. **Critically think and solve problems** 2. **Criticize and take decision** 3. **Analyze & assess the end result** | | | |
| (ii)  Teaching strategies to be used to develop these cognitive skills  **1. Problem-based practical sessions**  **2. Scenarios and demonstrations**  **3. Hands-on sessions**  **4. Homework assignments** | | | |
| 1. Methods of assessment of students cognitive skills 2. **Continuous assessment of practical procedures** 3. **Assessment during discussions** 4. **Assessment of homework assignments** | | | |
| **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 have developed the ability to:**   1. **Professionally communicate with colleagues, instructors, and auxiliary staff** 2. **Maintain equipments and instruments** 3. **Maintain neatness and cleanliness of the working field** 4. **Cooperate with others** 5. **Organize group work** 6. **Comply with instructions** | | | |
| (ii)  Teaching strategies to be used to develop these skills and abilities   1. **Orientation for the students at the beginning of the course** | | | |
| 1. Methods of assessment of students interpersonal skills and capacity to carry responsibility 2. **Observation and close supervision** | | | |
| **d.   Communication, Information Technology and Numerical Skills** | | | |
| 1. Description of the skills to be developed in this domain. | | | |
| 1. Teaching strategies to be used to develop these skills | | | |
| 1. 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  At the end of the course the student should have gained psychomotor skills to:  **The student should be able to do all laboratory procedures associated with prosthesis fabrication.** | | | |
| (ii)  Teaching strategies to be used to develop these skills   1. **Scenarios and demonstrations** 2. **Performing laboratory work for actual clinical cases** 3. **Hands-on sessions** | | | |
| (iii)  Methods of assessment of students psychomotor skills   1. **Observation and close supervision** 2. **Continuous assessment of practical procedures** | | | |
| 5. Schedule of Assessment Tasks for Students During the Semester | | | |
| Assessment | Assessment task (e.g. essay, test, group project, examination etc.) | Week due | Proportion of Final Assessment |

**D. Student Support**

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| 1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)  **The course director is in continuous contact with the students through email and cell phone. Also, academic counseling during his academic office hours (two hours per week).** |

**E. Learning Resources**

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| * 1. Required Text(s) |
| * 1. Essential Reference   **Reading Assignments may be given for certain topics** |
| * 1. Recommended Books and Reference Material (Journals, Reports, etc) (Attach List) |
| * 1. Electronic Materials, Web Sites etc   **The course director's web site** |
| * 1. Other learning material such as computer-based programs/CD, professional standards/regulations   **Demonstration CDs are provided for certain laboratory procedures** |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.) |
| * 1. Accommodation (Lecture rooms, laboratories, etc.) * **Graduate Prosthodontic Laboratory** |
| * 1. Computing resources |
| * 1. Other resources (specify --e.g. If specific laboratory equipment is required, list requirements or attach list) * **All instruments and materials are provided free of charge by the college store in the dental lab allocated for graduate prosthodontic students.** |

**G.  Course Evaluation and Improvement Processes**

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| 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching   * **Regular meetings with the students** * **Course evaluation form by students (available on website)** |
| 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** * **Participation in the certification for professional teaching** * **Attending continuing dental education activities in the in the Kingdom** * **Attending international dental meetings and courses** |
| 4. Processes for Verifying Standards of Student Achievement (e.g. 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.  **At the end of each academic year, the course director meets with the students and with the program director to discuss the shortcomings and the possible changes, which can be implemented to improve the course in the following year. The course is reviewed periodically during the departmental meetings and through revision of course report by the main accreditation committee in the college. Furthermore, the course evaluation form by students is distributed on paper and online.** |