**King Saud University**

**College of Dentistry**

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| **Course Specification**  |
| Course Title: | **Clinical Fixed Prosthodontics I** |
| Course Code: | **433 SDS** |
| Course Director:Course Co-Director:  | **Dr. Mohammed Al Qahtani**  |
| **Dr. Haneef Sharafudhin** |
| Department: | **Prosthetic Dental Sciences** |
| Academic Year | **2012-2013** |

**Course Specification**

*For Guidance on the completion of this template, please refer to of Handbook 2 Internal Quality Assurance Arrangements*

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| Institution King Saud University  |
| College/Department: college of dentistry/ department of prosthodontics  |

**A Course Identification and General Information**

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| 1. Course title and code: |
| 2. Credit hours **3 hours (1 Lecture + 2 Clinical)** |
| 3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) BDS – Bachelor of Dental Surgery |
| 4. Name of faculty member responsible for the course |
| 5. Level/year at which this course is offered : **4th year Fourth year 1st and 2nd semester (2012-2013G) (1433-1434H**) |
| 6. Pre-requisites for this course (if any): **333 SDS** **(Introduction to Fixed Prosthodontics)** |
| 7. Co-requisites for this course (if any)  |
| 8. Location if not on main campus DUC  |

**B Objectives**

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| 1. Summary of the main objectives for students enrolled in the course.Upon completion of this course, each student should: * **collect basic concepts necessary for the diagnosis and treatment planning of simple fixed prostheses.**
* **Develop skills managing a simple clinical fixed prosthetic cases successfully.**
* **perform different types of tooth preparations of abutments of fixed prostheses.**
* **fabricate a biologically compatible and esthetically and functionally acceptable provisional crown.**
* **safely manage soft tissues for making impressions of prepared tooth/teeth.**
* **utilizing a face bow, inter-occlusal records and semi-adjustable articulators for mounting clinical cases.**
* **compile preclinical informations of restoring missing tooth/teeth with dental implants.**
 |
| 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)Using blackboard unit  |

**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** | **No. of Weeks** | **Contact Hours** |
| 1. Introduction and orientation *(Reference: SDS 433 and SDS 333course outlines)** Overview of SDS 431 course objectives and content.
* Review of knowledge and skills gained to date (with special reference to course SDS 331).
* Course continuous assessment and clinical examination.
 | 1 | 4(1hr lecture, 2hr clinic) |
| 2. The dynamics of treatment planning and treatment  Sequences. (Reference*: Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 82-104)** Identification of Patients Needs
* Treatment of Tooth Loss
* Selection of Abutment Teeth
* Treatment Sequence
 | 1 | 4 |
| 3. Occlusal examination I *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp.110-121* * Review of Anatomy
* Clinical Significance of Tooth and Joint Morphology
* Review of Mandibular Movements, including Border and Functional Movements
 | 1 | 4 |
| 4. Occlusal examination II *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp.121-135* * Parafunctional Movements
* Examination of the Occlusion, Clinical Signs and Symptoms, Radiographic Signs, Occlusal Contacts
 | 1 | 4 |
| 5. Review of various tooth preparation, including the  extensively damaged vital tooth, the RPD abutment, etc. *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 258-285** The Complete Cast Crown Preparation
* The Metal Ceramic Crown Preparation
* Managing Pier Abutments
* Managing Tilted Molar Abutments
* Managing Space Deficit/Excesses
* Managing Supra-eruptions/Short Clinical Crowns
* Preparations for Periodontally Compromised Teeth
 | 1 | 4 |
| 6. Restoration of the Endodontically Treated Teeth *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 336-375** Treatment Planning
* Principles of Tooth Preparation
* Procedures for Post and Core Preparations
 | 1 | 4 |
| 7. Interim Fixed Restorations (*Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 466-502** Applications of Templates in Diagnosis and Treatment
* Template Construction Techniques
* Review of Provisional Restoration Fabrication Techniques
 | 1 | 4 |
| 8. Tissue management and and Impression Making (*Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 431-462*)* Fluid control
* Finish line exposure
* Types of impression materials
* Impression techniques
 | 1 | 4 |
| 9. Description of Color and Esthetics *(Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 709-732* )* Description of Color
* Shade Selection Sequence
* Esthetics
 | 1 | 4 |
| 10. *History and Types of Implants (Worthington P, Lang B, Osseointegration in dentistry, Quintessence Publishing Co.,1994** Definition of implant
* History review
* Different types of implants which includes broad spectrum types
 | **1** | 4 |
| 11. Implant Supported Fixed Prosthesis I (*Clinical Manual of Implant Dentistry, pp. 145-157*). | **1** | 4 |
| 12. Implant Supported Fixed Prosthesis II *(Clinical Manual of Implant Dentistry, pp. 133-144*) | **1** | 4 |
| 13. Evaluation of the Final Restoration &Cementation (*Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 887-806 & 909-925*)* Evaluation of the Final Restoration
* Characterization and Glazing
* Interim Cementation
* Definitive Cementation
* Types of Permanent Cements
* Cementation of Metal Based Crowns
* Cementation of All Ceramic Veneers and Inlays
 | **1** | 4 |
| 14. Post-Operative Care (*Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 929-943*)* Post-Cementation Appointments
* Periodic Recall
* Emergency Appointments

Re-treatment  | **1** | 4 |

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| 2 Course components (total contact hours per semester):  |
| Lecture:14 | Tutorial: NONE | Practical NONE | Other: Clinical1st semester (15x 3) = 452nd semester (15 x 3) = 45 |

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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) Students should spend a minimum of 3 hours per 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**  |
| 1. Description of the knowledge to be acquired

By the end of the course the student should be able to:* **collect basic concepts necessary for the diagnosis and treatment planning of simple fixed prostheses**
* **compile preclinical informations of restoring missing tooth/teeth with dental implants.**
* **Demonstrate an understanding of the clinical and laboratory procedures related to the fixed proshtodontics (1.4)**
 |
| (ii) Teaching strategies to be used to develop that knowledge* **Lectures**
* **blackboard unit to deliver the knowledge required for fixed prosthodontics as an adjunctive mean**
 |
| (iii) Methods of assessment of knowledge acquired**Quizze (in the form of short answer questions) , Mid course examination , Final course examination, and continues evaluation of the acquired knowledge before each clinical procedure.**  |
| **b. Cognitive Skills** |
| (i) Cognitive skills to be developed* **Apply evidence-based practice to deliver acceptable fixed prosthesis (2.3).**
* **manage simple clinical fixed prosthetic cases successfully(2.2).**
* **safely manage soft tissues for making impressions of prepared tooth/teeth**
 |
| (ii) Teaching strategies to be used to develop these cognitive skills* **Close supervision supported by faculty-student interaction and feedback during the intire course to make sound clinical judgments.**
* **Case-based discussion and (problem solving sessions) utilizing critical thinking and information gathering to formulate an appropriate diagnosis and treatment plan.**
 |
| (iii) Methods of assessment of students cognitive skills * **Continuous assessment in pre-clinical and clinical sessions to evaluate students` ability to apply their acquired knowledge and cognitive skills to make suitable clinical judgments.**
 |
| **c. Interpersonal Skills and Responsibility**  |
| (i)  Description of the interpersonal skills and capacity to carry responsibility to be developed * **Interact effectively with patients, colleagues and members of the health care team upto the level expected from undergraduates (3.1)**
 |
| (ii) Teaching strategies to be used to develop these skills and abilities* **Role modelling and instructional guidance by the teaching staff on how to interact with patients, staff and professional colleagues during supervised clinical sessions.**
 |
| (iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility* **Objective evaluation of the students` behaviour, interaction with others, and time management in the clinical sitting as a part of the continuous assessment.**
 |
| **d. Communication, Information Technology and Numerical Skills**  |
| (i) Description of the skills to be developed in this domain.* **Able to interact with each other through digital platform**
 |
| (ii) Teaching strategies to be used to develop these skills* **using e- moderation**
 |
| (iii) Methods of assessment of students numerical and communication skills * **using e-feedback.**
 |
| **e. Psychomotor Skills (if applicable)** |
| (i) Description of the psychomotor skills to be developed and the level of performance required* **perform different types of tooth preparations of abutments of fixed prostheses.**
* **fabricate a biologically compatible and esthetically and functionally acceptable provisional crown.**
* **utilizing a face bow, inter-occlusal records and semi-adjustable articulators for mounting clinical cases.**
 |
| 1. Teaching strategies to be used to develop these skills

Specific number of supervised clinical procedure. |
| 1. Methods of assessment of students psychomotor skills
* **Assessment of preclinical simulation project during the early weeks of the course to evaluate the students` ability to perform the desired clinical procedures.**
* **Continuous assessment of treatment procedures to evaluate the treatment outcome performed by the students in compliance with recognized safety measure.**
* **Fulfilling minimum clinical requirements that reflect the students` ability to perform the procedures with precision.**
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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 | Quizzes  | 4,6,9,13,15 | 10% |
| 2 | Mid-term written examination | 10 | 15% |
| 3 | Final written examination  | 16 | 25% |
| 4 | Clinical Competency Exams | 2nd semester | 10% |
| 5 | Continuous Clinical Assessments |  | 20% |
| 6 | Clinical Requirement Achievements |   | 10% |
| 7 | problem solving assignments  |  | 5% |
| 8 | Overall Course director evaluation |  | 5% |

**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)**Course directors office hours: 2 hours/ week****Course director progress meeting** **Clinical instructors (once weekly)** |

##### E Learning Resources

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| 1. Required Text(s)**Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006.** |
| 2. Essential References  **Shillingburg HT, Hobo S, Whitsett LD, Jacobi R & Brackett SE. Fundamentals of Fixed Prosthodontics, 3rd ed. Quintessence Publishing Co, 1997.**  |
| 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.)Lecture Room 27AA (DUC)Phantom lab 1st floorClinical hall 2nd floor |
| 2. Computing resourcesTV-CentrePhotography center |
| 3. Other resources (specify --eg. If specific laboratory equipment is required, list requirements or attach list) Library  |

**G Course Evaluation and Improvement Processes**

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| 1 Strategies for Obtaining Student Feedback on Effectiveness of TeachingFeed back of the students through a questionnaire as an evaluation of the course, and the teaching strategies followed.  |
| 2 Other Strategies for Evaluation of Teaching by the Instructor or by the DepartmentFeedback from contributors and chairman of the department. |
| 3 Processes for Improvement of TeachingCourse director is responsible for collecting and responding to feedback on his/her teaching from colleagues, peers, and from students. |
| 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)* Undergraduate Committee will review samples of student work in this course to check on the standard of grades and achievements.
 |
| 5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.Self- assessment at every two years and the external assessment by invited faculty members at every four years will be carried out. The feedback received from these assessments will be used to plan for further improvement in the course syllabus, teaching method, and delivery of course materials. |

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| SDS 431 | **1st Week** |
|  | 02 September 2012 |

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| LECTURE NO. 1 |  Lecturer: Dr. Mohammed ALQahtani |
| TITLE: Introduction and Orientation |
| TOPICS:* Overview of SDS 431 course objectives and contents
* Review of knowledge and skills gained to date (with special reference to course SDS 331)
* Course continuous assessment and clinical examination

*REFERENCE:** *SDS 431 course syllabus*
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| SDS 431 | **2nd Week** |
|  | 09 September 2012 |

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| LECTURE NO. 2  |  Lecturer: Dr. Mohammed ALQahtani |
| TITLE: The Dynamics of Treatment Planning |
| TOPICS:* Identification of Patients Needs
* Treatment of Tooth Loss
* Selection of Abutment Teeth
* Treatment Sequence

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 82-104**
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| SDS 431 | **3rd Week** |
|  | 16 September 2012 |

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| LECTURE NO. 3 | Lecturer: Dr. Mohammed ALQahtani |
| TITLE: Restoration of the Endodontically Treated Teeth |
| TOPICS:* Treatment Planning
* Principles of Tooth Preparation
* Procedures for Post and Core Preparations

*REFERENCE:**Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 336-375** |
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| SDS 431 | **4th Week** |
|  | 30 September 2012 |

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| LECTURE NO. 4 | Lecturer: Dr. Mohsin Ali |
| TITLE: Principles of Occlusion I |
| TOPICS:* Review of Anatomy
* Clinical Significance of Tooth and Joint Morphology
* Review of Mandibular Movements, including Border and Functional Movements

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 110-121**
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| QUIZ No. 1 |
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| SDS 431 | **5th Week**07 October 2012 |
| LECTURE NO. 5 | Lecturer: Dr. Mohsin Ali |
| TITLE: Principles of Occlusion II |
| TOPICS:* Parafunctional Movements
* Examination of the Occlusion, Clinical Signs and Symptoms, Radiographic Signs, Occlusal Contacts

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 121-135**
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| SDS 431 | **6th Week** |
|  | 14 October 2012 |
| LECTURE NO. 6 | Lecturer: Dr. Haneef Sherfudhin |
| TITLE: Review of Various Tooth Preparation and Managing Abnormal Tooth Positions |
| TOPICS:* The Complete Cast Crown Preparation
* The Metal Ceramic Crown Preparation
* Managing Pier Abutments
* Managing Tilted Molar Abutments
* Managing Space Deficit/Excesses
* Managing Supra-eruptions/Short Clinical Crowns
* Preparations for Periodontally Compromised Teeth

*REFERENCES:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006, pp. 258-285*
* *Shillingburg HT, Hobo S., Whitsett LD, Jacobi R & Brackett SE. Fundamentals of Fixed Prosthodontics, 3rd ed.,* **pp. 95-102, 189-193 and 211-213**
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| QUIZ No. 2 |
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| SDS 431 | **7th Week** |
|  | 04 November 2012 |

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| LECTURE NO. 7 |  Lecturer: Dr. Rashid Habib |
| TITLE: Interim Fixed Restorations |
| TOPICS:* Applications of Templates in Diagnosis and Treatment
* Template Construction Techniques
* Review of Provisional Restoration Fabrication Techniques

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 466-502**
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| SDS 431 |  11 November 2012**8th Week** |
| LECTURE NO. 8 | Lecturer: Dr. Abdullah Al-Farraj |
| TITLE: Tissue Management and Impression Making |
| TOPICS:* Fluid Control
* Finish Line Exposure
* Types of Impression Materials
* Impression Techniques

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 431-462**
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| SDS 431 | 18 November 2012**9th Week** |
| LECTURE NO. 9 | Lecturer: Dr. Rashid Habib |
| TITLE: Description of Color and Esthetics |
| TOPICS:* Description of Color
* Shade Selection Sequence
* Esthetics

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 709-732**
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| Quiz No. 3 |
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| SDS 431 | **10th Week**25 November 2012 |
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| **MID-TERM WRITTEN EXAMINATION** |
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| SDS 431 | **11th Week** |
|  | 02 December 2012 |

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| LECTURE NO. 10 |  Lecturer: Dr. Haneef Sherfudhin |
| TITLE: All Ceramic Restorations |
| TOPICS:* High Strength Ceramics
* All-Ceramic Systems
* Selection of All-Ceramic Systems
* Porcelain Labial Veneer

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 774-800**
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| SDS 431 | **12th Week** |
|  | 09 December 2012 |
| LECTURE NO. 11 | Lecturer: Dr. Mohammed ALQahtani |
| TITLE: Evaluation of the Final Restoration & Cementation |
| TOPICS:* Evaluation of the Final Restoration
* Characterization and Glazing
* Interim Cementation
* Definitive Cementation
* Types of Permanent Cements
* Cementation of Metal Based Crowns
* Cementation of All Ceramic Veneers and Inlays

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 887-806 & 909-925**
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| SDS 431 | **13th Week**16 December 2012 |
| LECTURE NO. 12 |  Lecturer: Dr. Khalil Al-Ali |
| TITLE: Implant Supported Fixed Prosthesis I |
| TOPICS:* Treatment planning
* Partial edentuilism in the anterior regions
* Partial edentulism in the posterior regions

*REFERENCE:** *Clinical Manual of Implant Dentistry,* **pp. 145-157**
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| QUIZ No. 4 |
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| SDS 431 | **14th Week**23 December 2012 |

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| LECTURE NO. 13 |  Lecturer: Dr. Khalil Al-Ali |
| TITLE: Implant Supported Fixed Prosthesis II |
| TOPICS:* Treatment planning for the single missing tooth
* Surgical considerations
* Prosthetic considerations

*REFERENCE:** *Clinical Manual of Implant Dentistry,* **pp. 133-144**
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| SDS 431 | **15th Week**30 December 2012 |

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| LECTURE NO. 14 | Lecturer: Dr. Mohammed AlQahtani |
| TITLE: Post-Operative Care |
| TOPICS:* Post-Cementation Appointments
* Periodic Recall
* Emergency Appointments
* Re-treatment

*REFERENCE:** *Rosenstiel SF, Land MF & Fujimoto J. Contemporary Fixed Prosthodontics, 4th ed. Mosby Elsevier, 2006,* **pp. 929-943**
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| QUIZ No. 5 |
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**16th Week**

6 January 2013

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| LECTURE NO. 15 | Lecturer: Dr. Mohammed AlQahtani |
| TITLE: Revision |
| **Revision for the previous topics and preparation for the final exam.** |

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| SDS 431 | **17th Week** |
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| **FINAL WRITTEN EXAMINATION** |
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