

King Saud University

College of Dentistry

Department of Prosthetic Dental Sciences



**DR. GHADA AL RABEAH**

Course Director - F

**DR. MAHA AL SAHAN**

Co-Course Director - F

**ACADEMIC YEAR**

**1432/1433H (2011/2012G)**

**COURSE NO. : SDS 212**

**COURSE TITLE : Introduction to Pre-Clinical**

 **Prosthodontics and Occlusion**

**CREDIT HOURS : Two (2)**

**CREDIT UNITS : 1 Lecture + 1 Clinical Simulation**

**LEVEL : Second Year (SecondSemester)**

**CONTACT HOURS : 1 Lecture = One Hour**

 **1 Clinical Simulation = Three Hours**

 **Total -------------------------- = Four Hours**

**PRE-REQUISITE COURSE: None**

**COURSE DESCRIPTION:**

 Prosthodontics is an essential component of the curriculum and is concerned with the maintenance of patient health and the restoration of oral function, comfort and appearance, through the replacement of teeth and contiguous structures with artificial substitutes.

This course is the students’ first preclinical course in the field of prosthodontics. The purpose of the course is to introduce the students to the basic definitions, knowledge, principles and techniques that are related to the four major branches of prosthodontics (removable, fixed, & implant prosthodontics and dental occlusion). Thus, this course will assist the students to acquire the mandatory basic knowledge before they are exposed to more in-depth courses. Additionally, the course attempts to mirror briefly the various clinical and laboratory prosthodontics steps being performed on partially and completely edentulous patients. This course is comprised of series of lectures and laboratory exercises with no clinical sessions. The course is provided to the second year undergraduate dental students on their second semester.

**COURSE OBJECTIVES:**

An overall objective of this course is to ensure that students possess the basic knowledge and skills which will prepare them for the subsequent advanced prosthodontic courses. Additionally, upon completion of this course, the students should be able to:

1. Define the various major terminologies related to prosthodontics.
2. List the indications and contraindications for each discipline of prosthodontics (fixed, removable and implant prosthodontics).
3. Name and describe the major components of fixed, removable and implant prosthodontic appliances.
4. Describe the various diagnostic methods which are normally utilized prior to prosthodontic treatment.
5. Define and list the major components of “face-bow” and “articulators”.
6. Describe the purpose of using “face-bow” and “articulators”.
7. Understand and define the major terminologies related to maxillomandibular relations.
8. Describe basic TMJ anatomy, rotational and translatory mandibular movements.
9. Understand the basic differences between “static” and “dynamic” occlusion.

**COURSE TOPICS:**

1. Introduction to Prosthodontics
2. Divisions of Prosthodontics
3. Introduction to Diagnosis in Prosthodontics
4. Introduction to Fixed Prosthodontics
5. Introduction to Removable Prosthodontics. Part I. Removable Partial Dentures
6. Introduction to Removable Prosthodontics. Part II. Complete Dentures
7. Introduction to Implant Prosthodontics
8. Introduction to occlusion
9. Introduction to Articulators
10. Introduction to Mandibular Movements ( I ).
11. Introduction to Mandibular Movements ( II ).
12. Concepts of Occlusion

**INSTRUCTIONAL METHODS:**

* Didactic:
	+ Lectures
	+ Continuous assessment/written examination
	+ Final didactic written examination
* Clinical simulation exercises:
	+ Weekly laboratory exercises
	+ Weekly practical assessment

**COURSE REQUIREMENT:**

Successful completion of this course will require:

1. 75% attendance is mandatory for lectures and practical sessions.
2. Clinical simulation exercise must be completed and submitted for evaluation on timely manner. The full 20% of the course grade will be awarded to a student only after successful completion of all the projects. Late submission of a clinical simulation exercise will receive Less Marks.
3. A passing grade for this course is minimum 60%. Therefore, each student must achieve the passing grade for each components of the course (i.g. didactic 60% and preclinical simulation exercises 60%).

**COURSE EVALUATION:**

 **Type of Test Grades**

**Continuous Assessment**: **60%**

 Mid-term Writen Exam 20%

Quizes & Assignment 10%

Laboratory Weekly Assessment 20%

Practical Spot Exam 10%

 **Final Examination** **40%**

**Total ------------------------------------------------------------ 100%**

**COURSE PROTOCOL:**

1. ATTENDANCE.
* Attendance to the didactic lectures and patient simulation exercises are mandatory and of primary importance.
* Being 5 minutes late for a lecture and 15 minutes for a patient simulation exercise will also be considered an absence.
* 25% of a student absence will prevent him from performing the final didactic and patient simulation exercises examinations
* Nonperforming and/or completion of a laboratory exercise as a result of unexcused absences will receive a “0” grade.
1. EXAMINATION.
	* There will be a mid-term didactic exam.
	* There will be a practical spot exam.
	* There will be a final didactic exam.

**REFERENCE:**

**Textbook:**

Rosensteil. Land. Fujimoto***. Contemporary Fixed Prosthodontics***. 4th Ed. Mosby Inc. 2006.

**Supplementary references**:

* M. AM. Hassaballa, YF Talic: ***Principles of Complete Denture Prosthodontics***. 1st Ed. 2004
* RD Phoenix, DR Cagna, and CF DeFreest. ***Stewart’s Clinical Removable Partial Prosthodontics***. 3rd Ed. Quintessence Publishing Co. 2003.
* Handouts by different lecturers.

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| SDS 212 | **1st Week** |
| 2nd Semester | 31 January 2012 |
| LECTURE NO. 1 | Lecturer: Dr. Ghada Al Rabeah |
| TITLE: Introduction to Prosthodontics  |
| TOPICS:* Introduction to the course
* Prosthodontic Terminologies

*Definition of Prosthetics**Definition of Prosthesis**Definition of Prosthodontics**Definition of Prosthodontist** Objectives of Prosthodontics
 |
| *REFERENCE:* * M. A.M. Hassaballa, Y. F. Talic: Principles of Complete Denture Prosthodontics. 1st Ed. Chapt. 1. Pages 1 & 8.
* Rodney D. Phoenix. David R. Cagna. Charles F. DeFreest. Stewart’s Clinical Removable Partial Prosthodontics. 4th Edition. Chap. 1. Pages 1-2.
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| SIMULATION CLINIC NO. 1 |
| ORIENTATION:* Introduction to laboratory policies, working safety, and dress code.
* Supply students with the required instruments.
* Instructors Assignment.
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| SDS 212 | **2nd Week** |
| 2nd Semester | 7 February 2012 |
| LECTURE NO. 2 | Lecturer: Dr. Ghada Al Rabeah |
| TITLE: Divisions of Prosthodontics  |
| TOPICS:* Fixed Prosthodontics
* Removable Prosthodontics

*Removable Partial Dentures**Complete Dentures** Maxillofacial Prosthodontics
* Implant Prosthodontics
 |
| *REFERENCE:* * M. A.M. Hassaballa, Y. F. Talic: Principles of Complete Denture Prosthodontics. 1st Ed. Chapt. 1. Pages 1-6.
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| SIMULATION CLINIC NO. 2 |
| Demonstration on different types of fixed, removable, implant & maxillofacial prostheses. |

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| SDS 212 | **3rd Week** |
| 2nd Semester | 14 February 2012 |
| LECTURE NO. 3 | Lecturer: Dr. Ghada Al Rabeah |
| TITLE: Introduction to Diagnosis in Prosthodontics  |
| TOPICS:* History
* Examination
* *Clinical Examination*
* *Radiographic Examination*
* Preliminary Impressions
* Diagnostic Casts
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 1 (Pages 3-20) Chapter 2 (Pages 42-45).*
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| SIMULATION CLINIC NO. 3 |
| * Making an alginate impression for a maxillary dentoform model.
* Impression pouring and diagnostic cast fabrication.
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| SDS 212 | **4th Week** |
| 2nd Semester | 21 February 2012 |
| LECTURE NO. 4 | Lecturer: Dr. Amal Al Qahtani |
| TITLE: Introduction to Fixed Prosthodontics  |
| TOPICS:* Definitions
* Objectives
* Indications & contraindications
* Advantages & disadvantages
* Major components
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 3 (Pages 82-87).*
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| SIMULATION CLINIC NO. 4 |
| * Demonstration on different types of fixed prostheses & component of an FPD.
* Making of an alginate impression for a mandibular dentoform model.
* Impression pouring and diagnostic cast fabrication.
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| SDS 212 | **5th Week** |
| 2nd Semester | 28 February 2012 |
| LECTURE NO. 5 | Lecturer: Dr. Maha Al Sahan |
| TITLE: Introduction to Removable Prosthodontics Part I. Removable Partial Denture |
| TOPICS:* Definitions
* Objectives
* Indications & contraindications
* Advantages & disadvantages
* Major components
 |
| *REFERENCE:*Rodney D Phoenix. David R Cagna. Charles F DeFreest. Stewart’s Clinical Removable Partial Prosthodontics. 4th Edition. Chapter 1 (Pages 1-8) Chapter 2 (Pages 19-21) |

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| SIMULATION CLINIC NO. 5 |
| * Demonstration on different partially edentulous casts.
* Demonstration on different RPDs & their major components.
* Completion, submission and evaluation of U/L diagnostic casts.
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| SDS 212 | **6th Week** |
| 2nd Semester | 6 March 2012 |
| LECTURE NO. 6 | Lecturer: Dr. Maha Al Sahan |
| TITLE: Introduction to Removable Prosthodontics Part II. Complete Dentures |
| TOPICS:* Definitions
* Objectives
* Indications & contraindications
* Advantages & disadvantages
* Major components
 |
| *REFERENCE:* * M. A.M. Hassaballa, Y. F. Talic: Principles of Complete Denture Prosthodontics. 1st Ed. Chapt. 1. Pages 4-6, 8, 11
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| SIMULATION CLINIC NO. 6 |
| * Demonstration on edentulous upper and lower casts.
* Demonstration on a complete denture.
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| SDS 212 | **7th Week** |
| 2nd Semester | 13 March 2012 |
| LECTURE NO. 7 | Lecturer: Dr. Huda Tulbah |
| TITLE: Introduction to Implant Prosthodontics |
| TOPICS:* Definitions
* Objectives
* Indications & contraindications
* Advantages & disadvantages
* Major components
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 3 Page 87 & Chapter 13 (Pages 379-384)*
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| SIMULATION CLINIC NO. 7 |
| * Demonstration on various type of dental implants & their components.
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| SDS 212 | **8th Week** |
| 2nd Semester | 20 March 2012 |
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| MID-TERM DIDACTIC EXAM |
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**MID 2nd SEMESTER BREAK**

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| SDS 212 | **9th Week** |
| 2nd Semester | 3 April 2012 |
| LECTURE NO. 8 | Lecturer: Dr. Ghada Al Rabeah |
| TITLE: Introduction to Occlusion |
| TOPICS:* Function of teeth
* Sequelae of tooth loss
* Prerequisites to proper function *(teeth position, articulation)*
* Definition of occlusion
* Components of occlusion
* Importance of occlusion in Dentistry.
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 3 (Pages 87-89) Chapter 4 Pages 110-115.*
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| SIMULATION CLINIC NO. 8 |
| * Demonstration on dentoforms illustrating the proper occlusion & its related components.
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| SDS 212 | **10th Week** |
| 2nd Semester | 10 April 2012 |
| LECTURE NO. 9 | Lecturer: Dr. Huda Tulbah |
| TITLE: Introduction to Articulators |
| TOPICS:* Relationship of maxillary & mandibular arches to the other components of masticatory system
* Need for simulation of such relationship *(need for articulator)*
* Definition of an Articulator.
* Components of an Articulator
* Facebows & their significance
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 2. Pages 45-50.*
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| SIMULATION CLINIC NO. 9 |
| * Mounting the maxillary cast on a semi adjustable articulator utilizing a face-bow.
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| SDS 212 | **11th Week** |
| 2nd Semester | 17 April 2012 |
| LECTURE NO. 10 | Lecturer: Dr. Amal Al Qahtani |
| TITLE: Introduction to Mandibular Movements ( I )  |
| TOPICS:* Static vs dynamic occlusion
* Interarch relationships
* Definition of Centric Relation (CR) & (CO).
* Significance of CR.
* Interocclusal Records.
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 4. Pages 115-116.*
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| SIMULATION CLINIC NO. 10 |
| * Mounting the mandibular cast on a semi adjustable articulator utilizing CR record.
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| SDS 212 | **12th Week** |
| 2nd Semester | 24 April 2012 |
| LECTURE NO. 11 | Lecturer: Dr. Amal Al Qahtani |
| TITLE: Introduction to Mandibular Movements ( II )  |
| TOPICS:* Types of mandibular movements:
* *Opening and closing movements of mandible.*
* *Anterior movement of mandible (Protrusion, anterior guidance)*
* *Lateral movements of mandible (working / nonworking sides, canine guidance)*
* Orientation of the mandibular movements in 3 planes

 *(Sagittal, Horizontal and Frontal).* |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 4. Pages 115-116.*
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| SIMULATION CLINIC NO. 11 |
| * Practical Spot Exam
* Illustration of mandibular movements utilizing the mounted casts on the articulator.
* Occlusal wax-up for tooth #46 utilizing additive wax technique.
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| SDS 212 | **13th Week** |
| 2nd Semester | 1 May 2012 |
| LECTURE NO. 12 | Lecturer: Dr. Huda Tulbah |
| TITLE: Concepts of Occlusion |
| TOPICS:* occlusal schemes *(concepts of occlusion)*
* Bilateral Balanced Occlusion
* Unilateral balanced Occlusion
* Mutual Protected Occlusion
* Advantages, disadvantages & indications
 |
| *REFERENCE:* * *Rosensteil. Land. Fujimoto. Contemporary Fixed Prosthodontics. 4th Edition. Chapter 4 Pages 123-125.*
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| SIMULATION CLINIC NO. 12 |
| * Continue the occlusal wax-up for tooth #46.
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| SDS 212 | **14th Week** |
| 2nd Semester | 8 May 2012 |
| LECTURE NO. 13 | Lecturer: Dr. Ghada Al Rabeah |
| TITLE: Review and course evaluation |

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| SIMULATION CLINIC NO. 13 |
| * Completion and submission of occlusal wax-up for tooth #46.
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| SDS 212 | **15th Week** |
| 2nd Semester | May/June 2012 |

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| Exact date/location will be determined at that time |
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| FINAL WRITTEN EXAMINATION |
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