



**King Saud University
College of Dentistry
Department of Prosthetic Dental Sciences**

SDS 212

**Introduction to
Pre-Clinical Prosthodontics
and Occlusion**

DR. AFNAN AL FOUZAN

Course Director - F

**ACADEMIC YEAR
1433/1434H (2012/2013G)**

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 (Second Semester)	
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 specialty of Prosthodontics, classify the branches of Prosthodontics, discuss about the diagnostic methods used in Prosthodontics and differentiate between the different types of prostheses.
2. List the terminologies used in Prosthodontics.
3. Propose treatment options in different case scenarios for missing teeth.
4. Define Occlusion, recognize importance of Occlusion in Dentistry.
5. Explain the features of an optimal occlusion.
6. Differentiate between the different concepts of occlusion.
7. Describe the movements of the mandible, use of facebows and articulators.
8. Perform the essential preclinical diagnostic laboratory procedures involved in the specialty of Prosthodontics.

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:

<u>Type of Test</u>	<u>Grades</u>
Continuous Assessment:	60%
Mid-term Written Exam	20%
Quizzes & Assignment	10%
Laboratory Weekly Assessment	20%

Practical Spot Exam	10%
Final Examination	40%
Total -----	<u>100%</u>

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 her 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.

2. 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, YFTalic: **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.

SDS 212

1st Week

2nd Semester

29 January 2013

LECTURE NO. 1

Lecturer: Dr. Afnan Al Fouzan

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.

SIMULATION CLINIC NO. 1

ORIENTATION:

- Introduction to laboratory policies, working safety, and dress code.
- Supply students with the required instruments.
- Instructors Assignment.

SDS 212

2nd Week

2nd Semester

5 February 2013

LECTURE NO. 2

Lecturer: Dr. Afnan Al Fouzan

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.

SIMULATION CLINIC NO. 2

Demonstration on different types of fixed, removable, implant & maxillofacial prostheses.

SDS 212

3rd Week

2nd Semester

12 February 2013

LECTURE NO. 3

Lecturer: Dr. Afnan Al Fouzan

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).*

SIMULATION CLINIC NO. 3

- Making an alginate impression for a maxillary dentoform model.
- Impression pouring and diagnostic cast fabrication.

SDS 212

4th Week

2nd Semester

19 February 2013

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).*

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.

SDS 212

5th Week

2nd Semester

26 February 2013

LECTURE NO. 5

Lecturer: Dr. Balqees Al Mufleh

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)

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.

SDS 212

6th Week

2nd Semester

5 March 2013

LECTURE NO. 6

Lecturer: Dr. Balqees Al Mufleh

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

SIMULATION CLINIC NO. 6

- Demonstration on edentulous upper and lower casts.
- Demonstration on a complete denture.

SDS 212

7th Week

2nd Semester

12 March 2013

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)*

SIMULATION CLINIC NO. 7

- Demonstration on various type of dental implants & their components.

SDS 212

8th Week

2nd Semester

19 March 2013

MID-TERM DIDACTIC EXAM

MID 2nd SEMESTER BREAK

SDS 212

9th Week

2nd Semester

2 April 2013

LECTURE NO. 8

Lecturer: Dr. Afnan Al Fouzan

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.*

SIMULATION CLINIC NO. 8

- Demonstration on dentoforms illustrating the proper occlusion & its related components.

SDS 212

10th Week

2nd Semester

9 April 2013

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.*

SIMULATION CLINIC NO. 9

- Mounting the maxillary cast on a semi adjustable articulator utilizing a face-bow.

SDS 212

11th Week

2nd Semester

16 April 2013

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.*

SIMULATION CLINIC NO. 10

- Mounting the mandibular cast on a semi adjustable articulator utilizing CR record.

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.*

SIMULATION CLINIC NO. 11

- Illustration of mandibular movements utilizing the mounted casts on the articulator.
- Occlusal wax-up for tooth #46 utilizing additive wax technique.

SDS 212

13th Week

2nd Semester

30 April 2013

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.*

SIMULATION CLINIC NO. 12

- Continue the occlusal wax-up for tooth #46.

SDS 212

2nd Semester

14th Week

7 May 2012

LECTURE NO. 13

Lecturer: Dr. Afnan Al Fouzan

TITLE: Practical exercises review.

SIMULATION CLINIC NO. 13

- Continue the occlusal wax-up for tooth #46.

SDS 212

2nd Semester

15th Week

14 May 2012

LECTURE NO. 14

Lecturer: Dr. Afnan Al Fouzan

TITLE: Review and course evaluation

SIMULATION CLINIC NO. 14

- **Practical Spot Exam**
- **Completion and submission of occlusal wax-up for tooth #46.**

SDS 212

2nd Semester

16th Week

May 2012

Exact date/location will be determined at that time

FINAL WRITTEN EXAMINATION

