



King Saud University
College of Dentistry
Department of Prosthetic Dental Sciences

423 SDS

Clinical Removable

Prosthodontics

DR. MOUSTAFA HASSABALLA

Course Director - M

PROF. FAISAL FAHMI

Course Co-Director - M

ACADEMIC YEAR
1434/1435H (2013/2014G)

COURSE TITLE: CLINICAL REMOVABLE PROSTHODONTICS I

COURSE CODE: SDS 423

CREDIT HOURS: 3

CREDIT UNITS: 1 Lecture + 2 Clinics

LEVEL: 4th Year (1st & 2nd Semesters)

CREDIT HOURS: 1st Sem. 1 lecture = 1 hr.; 1 clinic = 3 hrs.
2nd Sem. 1 clinic = 3 hrs.
Total = 7 hrs.

PREREQUISITES: SDS 323 (Pre-clinical Removable Prosthodontics)

COURSE DESCRIPTION:

This course is the first course in Clinical Removable Prosthodontics. It consists of didactic and clinical components. The course is limited to the teaching of complete and conventional Removable Partial Dentures.

The didactic component is delivered in 15 lectures. It covers the theoretical background for different phases of treatment with Removable Partial Dentures and Complete Dentures. The syllabus includes diagnosis, treatment planning, treatment procedures, and follow-up of the treatment. The lectures focus on the basic concepts, principles, indications, and limitations of these clinical procedures.

The clinical component comprises of 30 clinical sessions held for the entire academic year (one clinic per week), utilized to practice common clinical procedures for patients examination, motivation, and treatment with complete and conventional removable partial dentures.

COURSE OBJECTIVES:

To familiarize the student with clinical management of edentulous and partially edentulous patients, through teaching basic clinical procedures and their integration with the procedures taught in the pre-clinical course SDS 323.

At the completion of this course, the student should be:

1. competent in the basic scientific knowledge pertaining to the treatment of edentulous and partially edentulous patients;
2. proficient in the clinical management of uncomplicated cases requiring complete and conventional removable partial dentures.

INSTRUCTIONAL METHODS:

- ➡ Didactic-lectures
- ➡ Clinical-demonstration and Practice Sessions

EVALUATION OF THE COURSE:

1. Continuous Assessment: 60%

a. Theoretical Knowledge: (30%)

- One Written examination at the middle of the 1st Semester = 20%
- Continuous Oral Exam in the Clinic = 10%

b. Clinical Assessment: (30%)

- 1st semester 15%
- 2nd semester 15%

2. Final Examination: 40%

- Final Written Exam 40%

COURSE REQUIREMENTS:

The minimum requirements to pass this Course are to fabricate prostheses for:

1. Two partially edentulous arches.
2. Two completely edentulous arches.

NOTE: Students who fail to fulfill the minimum requirements will be graded as incomplete.

COURSE PROTOCOL:

1. A minimum of 75% attendance is compulsory in lectures as well as in practical sessions.
2. To obtain a passing grade in this course, the student must pass both clinical and didactic components separately.
3. Final written exam will be held at the end of the first semester.
4. The student should maintain discipline with regards to attending the clinic sessions on time, and is expected to maintain a good rapport with his/her patients, colleagues and instructor alike.

5. The student must always observe cleanliness and neatness in appearance and wear their proper clinical gowns during the clinical sessions; otherwise he/she will not be allowed to perform their clinical procedures.
6. It is the responsibility of the student to complete the patient's permanent file, indicating all the relevant information and to obtain the signature of his/her instructor. A temporary file is not acceptable. The patient's file, without the signature of the assigned instructor, shall be considered as an incomplete clinical procedure, and will affect his/her daily grade.
7. The dental laboratory authorization form should be filled out by the student and should be signed by the instructor. Good rapport with laboratory personnel should be maintained.

REQUIRED TEXTBOOKS:

1. Hassaballa, M. Clinical Complete Denture Prosthodontics, 2nd ed., King Saud University Academic Publishing and Press, 2010.
2. Heartwell and Rahn: Textbook of Complete Dentures, 5th ed., Williams and Wilkins Co., 1993.
3. Zarb, Bolender, Hickey and Carlsson: Boucher's Prosthodontic Treatment for Edentulous Patients. 11th ed., The CV Mosby Co., St. Louis, latest edition.
4. Stewart, Rudd, Kuebker: Clinical Removable Partial Prosthodontics. The CV Mosby Co., St. Louis, latest.

EVALUATION FORMS:

Two forms are to be used by the Course Director to register the grades, sign the marks and write the remarks for each student on a daily basis for both the didactic and clinical parts.

DPC Didactic Performance Card (The student's evaluation form in the didactic part.)

CPC Clinical Performance Card (The student's evaluation form in the clinical part.)

Each form represents the assessments and grand total marks for each part of the course.

A copy of each evaluation form is attached to the course outline for the student's information and guidance.

Computer print-outs of DPC and CPC will be submitted to the student during the academic year:

- After each session for didactic part
- After each clinical session

EVALUATION FORMS ABBREVIATIONS:

LC Lecture

LT Late attendance on the lecture or clinical session beyond 5 minutes after the due time

AB Absent (no show)

Q Quiz

NT Neatness in the arrangement of the instruments, and materials needed for certain clinical procedure and maintaining a good, neat and clean appearance of the personal outlook, as well as the working area.

QW Quality of the work submitted to the instructor for grading. It must represent the standard measurements, dimensions and appearance of the 3 dimensional practical project required in each exercise.

PB Personal behavior of the student which includes:

- ☞ communication and cooperation with faculty, staff and other students.
- ☞ promptness in departing "on time" at the end of each clinical session.
- ☞ wearing of proper clinical uniform.
- ☞ careful handling of materials and equipments.

SDS 423

DPC



DR. MOUSTAFA HASSABALLA
Course Director – M

Student Name _____ Group no. _____ University no. _____

WEEK	LC	LT	AB	Q	WEEK	LC	LT	AB	Q	REMARKS
1 st	1				8 th	15				
	2					16				
2 nd	3				9 th	17				
	4					18				
3 rd	5				10 th	19				
	6					20				
4 th	7				11 th	21				
	8					22				
5 th	9				12 th	23				
	10					24				
6 th	11				13 th	25				
	12					26				
7 th	13				14 th	27				
	14					28				

TOTAL: LT

AB

Q

Midterm Didactic Assessment

GRAND TOTAL / 20

Approved Course Director:

Academic Year: 2013/2014

Semester : _____

SDS 423



DR. MOUSTAFA HASSABALLA
Course Director - M

Student Name _____ Group no. _____ University no. _____

WEEK	LB	LT	AB	NT	QW	PB	WEEK	LB	LT	AB	NT	QW	PB	REMARKS
1 st	1						8 th	15						
	2							16						
2 nd	3						9 th	17						
	4							18						
3 rd	5						10 th	19						
	6							20						
4 th	7						11 th	21						
	8							22						
5 th	9						12 th	23						
	10							24						
6 th	11						13 th	25						
	12							26						
7 th	13						14 th	27						
	14							28						

TOTAL:

Oral Clinical Exam

GRAND TOTAL / 10

Approved Course Director:

Academic Year: 2013/2014
Semester : 1 & 2

COURSE SDS 423-(DUC) LECTURE TOPICS

ACADEMIC YEAR 2013-2014

No.	Date	Lectures	Faculty
1	3/09/2013	Introduction to the course, SDS clinical forms, clinical protocol, lecture content, and references	Dr. Hassaballa
2	10/09/2013	Diagnosis and treatment planning for edentulous and partially edentulous patients	Dr. Hassaballa
3	17/09/2013	Surgical and non surgical mouth preparation for edentulous and partially edentulous patients	Prof. Fahmi
4	24/09/2013	Principles, objectives and impression procedures for edentulous and partially edentulous patients	Dr. F. Vohra
5	01/10/2013	Metal framework try-in and dual impression technique	Dr. F. Vohra
6	08/10/2013	Recording maxillo-mandibular relations (complete dentures)	Dr. Mohsin Ali
October 10 – 20, 2013, HAJ BREAK/ MIDTERM EXAM			
7	22/10/2013	Jaw relation records and techniques for RPD	Dr. Mohsin Ali
8	29/10/2013	Teeth selection for edentulous and partially edentulous patients	Dr. Hassaballa
9	5/11/2013	Occlusal concepts and schemes for complete dentures	Prof. Fahmi
10	12/11/2013	Principles of partial denture design. Stress consideration in distal extension RPD	Dr. Hassaballa
11	19/11/2013	Various techniques of recording the posterior palatal seal	Dr. F. Vohra
12	26/11/2013	Try-in of waxed complete and partial dentures	Prof. Fahmi
13	3/12/2013	Complete and partial dentures placement and instructions to the patients	Dr. Mohsin Ali
14	10/12/2013	Post-insertion management of complete and partial dentures problems	Prof. Fahmi
15	17/12/2013	Immediate dentures	Dr. N. Labban
FINAL EXAMINATION			

The first two clinical sessions	No assigned patients for the students
The first week clinical session	Students will receive a clinical demonstration on patient management and clinical protocol The students will practice impression making on each other
The second week clinical session	An infection control workshop will be arranged with the infection control unit, to teach the students the ideal way of dealing with material and instruments used in their prosthetic sessions

LECTURE NO. 1

Lecturer: Dr. Moustafa Hassaballa

TITLE: Introduction to the course, SDS clinical forms, clinical protocol, lecture content, and references

TOPICS:

- Introduction to the Course
- SDS clinical forms, clinical protocol, lecture contents and references:
 1. Request for opening a permanent file form.
 2. SDS examination/diagnosis for complete dentures/RPD patients.
 3. Radiographic examination form.
 4. SDS preparation forms for RPD patients.
 5. Conventional patient referral form.
 6. Sample of treatment sequence for the complete denture patient.
 7. Sample of treatment sequence for the removable partial denture patient.
 8. SDS removable partial denture design form.
 9. Sample of dental laboratory worksheet.
 10. SDS clinical evaluation form.
 11. Patient leave of absence from work form.
 12. Patient appointment for the next clinical session form.
 13. Patient complete denture instructions brochure.

10 Sept. 2013

LECTURE NO. 2

Lecturer: Dr. Moustafa Hassaballa

TITLE: Diagnosis and treatment planning for edentulous and partially edentulous patients

TOPICS:

- Health questionnaire for edentulous and partially edentulous subjects
- Psychological considerations
- Past dental history for edentulous & partially edentulous subjects
- Extraoral examination for edentulous patient
- Intraoral examination for edentulous patient
- Intraoral examination for partially edentulous patient
- Radiological examination (root morphology, crown root ratio, bone height & quality, reaction of bone to stress)
- Study casts (requirements and uses), mounted study cast analysis on the articulator plane (interridge space, interocclusal space, occlusal interferences)

REFERENCES:

- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., pp. 127-168*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU Academic Publishing & Press 2010, Chap. 4, pp. 45-74*
- *Boucher's Prosthodontic treatment for edentulous patients, pp. 71-99*

17 Sept. 2013

LECTURE NO. 3

Lecturer: Prof. Faisal Fahmi

TITLE: Surgical and non surgical mouth preparation for edentulous and partially edentulous patients

TOPICS:

- Surgical procedures (extractions, alveoloplasty of hyperplastic tissue, etc).
- Periodontal therapy
- Occlusal adjustment
- Endodontic procedures
- Treatment of abused tissue
- Surgical Procedures:
 1. Soft tissue procedure: Epulis fissuratum, pressure on mental foramen
 2. Removal of hyperplastic tissues
 3. High Frenal attachments
 4. Surgical procedures for hard tissues: Bony prominences, tori, bony spicules, spiny ridge
 5. Enlargement of denture bearing area: Vestibuloplasty, ridge augmentation, and correction of jaw relations
 6. Prescribing dental implants
- Non Surgical Procedures:
 1. Nutrition
 2. Conditioning the mucosa by providing rest and using tissue conditioners

REFERENCES:

- *Stewart's Clinical Removable Partial Prosthodontics*, 3rd ed., pp. 227-287
- *Textbook of Complete Dentures by Rahn & Heartwell*. 5th ed., pp. 171-193
- *Hassaballa M. Clinical Complete Denture Prosthodontics*, KSU, Academic Publishing & Press 2010, Chap.5, pp. 75-98

LECTURE NO. 4

Lecturer: Dr. Fahim Vohra

TITLE: Principles, objectives and impression procedures for edentulous and partially edentulous patients

TOPICS:

- Techniques of impression making
- Impression materials:
 - Irreversible hydrocolloids
 - Final impression materials, its advantages and disadvantages: ZOE impression, elastomeric impressions
- Care of impressions
- Method of forming a cast – trimming the cast
- Management of patients with gag reflex
- Impression objectives: preservation, support, stability, retention, esthetic
- Preliminary impressions: equipment, seating the patient, impression of the mandibular and maxillary arch
- The final impression materials and techniques: classification of impression techniques (mucostatic, functional impression, selective pressure technique)
- Final impression – step by step clinical procedures (Border molding): final impression of maxillary and mandibular arch

REFERENCES:

- *Boucher's Prosthodontic Treatment for Edentulous Patients, 10th ed., Chap. 8 & 10, pp. 169-193, 224-242*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 6, pp. 99-135*

LECTURE NO. 5

Lecturer: Dr. Fahim Vohra

TITLE: Metal framework try-in and dual impression technique

TOPICS:

- Checking the metal framework on the cast and out of cast
 - Do the components in proper position as indicated in the work authorization
 - Examining the tissue side of the metal framework
- Fitting the metal framework to the teeth
 - Adjusting the clasps
 - Adjusting the overextension of the metal framework
- Adjusting the framework to the opposing teeth
 - Objectives
 - Equilibration of occlusion – materials and methods employed

REFERENCES:

- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., Chap. 12, pp. 370-380 & Chap. 13, pp. 381-399*

LECTURE NO. 6

Lecturer: Dr. Mohsin Ali

TITLE: Recording maxillo-mandibular relations (complete dentures)

TOPICS:

- Orientation of occlusal plane
- Vertical jaw relation record
 - Recording physiologic rest position
 - Recording vertical dimension of occlusion
 - Evaluating vertical dimension of occlusion
 - Pre-extraction records
- Centric jaw relation record
 - Methods of recording CR
- Protrusive interocclusal record

REFERENCES:

- *Boucher's Prosthodontic Treatment for Edentulous Patients, 10th ed., Chap. 12 & 13, pp. 272-295*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 9, pp. 189-224*

22 Oct. 2013

LECTURE NO. 7

Lecturer: Dr. Mohsin Ali

TITLE: Jaw relation records and techniques for RPD

TOPICS:

- Why we record the jaw relation?
- Methods of establishing the occlusion
- Vertical dimension of occlusion
- Altering the vertical dimension of occlusion
- Establishing the horizontal relation for the partial denture that opposes on edentulous arch
- Face-bow records

REFERENCES:

- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., pp. 393-396, 408-410*

HAJJ BREAK

**MID-TERM EXAM
AFTER HAJJ**

LECTURE NO. 8

Lecturer: Dr. Hassaballa

TITLE: Teeth selection for edentulous and partially edentulous patients

TOPICS:

- Anatomic factors for anterior tooth selection and posterior teeth:
 - Size of the face
 - Size of the maxillary arch
 - Incisive papilla and cuspid eminence
 - Maxillomandibular relations (Class-I, Class-II and Class-III)
 - Contour of residual ridges
 - Interridge space
 - The lip
- Factors related to anterior teeth:
 - Size
 - Form
 - Shade
- Posterior teeth:
 - Form of posterior teeth
 - Size and shade
 - Material composition

For RPD patients:

- Types of posterior teeth
- Selection of teeth for Class IV partial dentures
- Selection of posterior teeth
- Rules for arranging posterior teeth
- Method of attaching artificial teeth

REFERENCES:

- *Boucher's Prosthodontic Treatment for Edentulous Patients, 10th ed., Chap. 16, pp. (330-343)—(345-351)*
- *Boucher's Prosthodontic Treatment for Edentulous Patients, 10th ed., Chap. 8, pp. 417-436*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 11, pp. 235-254*

5 Nov. 2013

LECTURE NO. 9

Lecturer: Prof. Faisal Fahmi

TITLE: Occlusal concepts and schemes for complete dentures

TOPICS:

- Concepts of occlusion:
 - Balanced occlusion and Non-balanced occlusion
 - Advantages
- Occlusal schemes:
 - Anatomic (30 or 33 degree teeth)
 - Semi-anatomic (20 degree teeth)
 - Rationale (zero degree teeth)

REFERENCES:

- *Rahn & Heartwell. Textbook of Complete Dentures, 5th ed., Chap. 16, pp. 357-366*
- *Essentials of Complete Denture Prosthodontics by Sheldon Winkler, W.B. Saunders, 1979, pp. 360-380*

12 Nov. 2013

LECTURE NO. 10

Lecturer: Dr. Moustafa Hassaballa

TITLE: Principles of partial denture design. Stress consideration in distal-extension RPD

TOPICS:

- The types of leverages are present in a RPD, its classification, mechanical advantages related to stress on abutment teeth
- Distribution of load to each part of RPD
- Factors that influence the magnitude of the stress that is transmitted to the abutment tooth
- Design consideration in controlling leverage induced stress. Summary of the basic principles.
- Basis for clasp selection
- Clasp mechanics and the effect of various designs on the supporting structures
- Design consideration of the reciprocal components
- Advantages, disadvantages, indications and contraindications of stress releasing clasps

REFERENCES:

- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., Chap. 4, pp. 94-112*

19 Nov. 2013

LECTURE NO. 11

Lecturer: Dr. Fahim Vohra

TITLE: Various techniques of recording the posterior palatal seal

TOPICS:

- Definition
- Purpose
- Anatomy
- Physiologic method using mouth temperature wax
- Biomechanical methods
- Combination physiologic and biomechanical methods

REFERENCES:

- *Boucher's Prosthodontic Treatment for Edentulous Patients, pp. 433-436; Syllabus of Complete Dentures pp. 191-192, 462-463*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 12, pp. 257-264*

26 Nov. 2013

LECTURE NO. 12

Lecturer: Prof. Faisal Fahmi

TITLE: Try-in of waxed complete and partial dentures

TOPICS:

- Verification of centric relation record
 - Correction of centric occlusion/relation disharmony
 - Vertical relation/methods of correction
 - Checking for uneven occlusion/methods of correction
- Eccentric records
 - Protrusive record
 - Adjusting the horizontal condylar guidance
 - Hanau formula for adjusting the lateral condylar guidance
- The appearance phase
 - Anterior teeth, anteroposterior position, super-inferior position, midline position, inclination, individual tooth position, size, form and shade of teeth
- Posterior teeth
 - Positions, size, mould and shade
 - Concept of occlusion and shape of polished surface of the denture
- Indications of try-in of the waxed partial denture
- Verification of jaw relations
 - If the partial denture is opposed by a complete denture
 - If all the posterior teeth in both arches are being replaced
 - If there are no opposing natural teeth in contact

REFERENCES:

- *Boucher's Prosthodontic Treatment for Edentulous Patients. Chap. 18, pp. 373-381 & Chap. 20, pp. 425-436*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 15, pp. 307-330*
- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., Chap. 15, pp. 439-444.*

3 Dec. 2013

LECTURE NO. 13

Lecturer: Dr. Mohsin Ali

TITLE: Complete and partial dentures placement and instructions to the patients

TOPICS:

- Laboratory remount
- Initial insertion
 - Evaluation of tissue surface, border extensions, retention & stability, esthetic & facial contours
 - Centric relation records
- Clinical remount
 - Denture remount and selective grinding
 - Final intra-oral check-up
- Instruction to patients and recall appointments
 - First oral feelings, excessive salivation, speech
 - Maintaining tissue health
 - Complete denture hygiene
- Fitting of the RPD prosthesis: the procedures
- Counseling the patient
- Post-insertion follow-up

REFERENCES:

- *Textbook of Complete Dentures by Rahn & Heartwell, 5th ed., Chap. 18, pp. 387-400*
- *Boucher's Prosthodontic Treatment of Edentulous Patients, 10th ed., Chap. 23, pp. 474-508*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2010, Chap. 17, pp. 337-341*
- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., Chap. 17, pp. 524-535*

10 Dec. 2013

LECTURE NO. 14

Lecturer: Prof. Faisal Fahmi

TITLE: **Post-insertion management of complete and partial dentures problems**

TOPICS:

- Basal tissue irritation: detection and correction
- Occlusal discrepancies: detection and correction
- Defective denture retention: detection and correction
- Gagging: its causes and correction
- Poor mastication and phonetic defects
- Common complaints of the partial denture wearer
- Factors in assessing the need for adjustments

REFERENCES:

- *Textbook of Complete Dentures by Rahn & Heartwell, 5th ed., Chap. 19, pp. 404-425*
- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2004, Chap. 20, pp. 367-388*
- *Stewart's Clinical Removable Partial Prosthodontics, 3rd ed., Chap. 17, pp. 524-535*

17 Dec. 2013

LECTURE NO. 15

Lecturer: Dr. Nawaf Labban

TITLE: Immediate dentures

TOPICS:

- Definitions
 - Partial and immediate complete dentures
- Indications and advantages of immediate denture service
- Contraindications for immediate denture service
- Clinical steps and laboratory procedures for immediate complete dentures
- Visit 6: Placement (insertion visit for immediate dentures)
- Post-placement visits
- Patient instructions

REFERENCES:

- *Hassaballa M. Clinical Complete Denture Prosthodontics, KSU, Academic Publishing & Press 2004, Chap. 21, pp. 301-414*