



**University of Jordan**  
**Faculty of Dentistry**  
**Dept. of Prosthetic Dentistry**  
**Third Year, 2010-2011**  
**Removable Prosthodontics Didactic 1**

**Course Title:** Removable Prosthodontics Didactic (1)

**Course Code:** 1304343

**Prerequisite:** None

## **Course Description:**

This is a theoretical based Prosthodontics course where students are theoretically trained on the various steps and aspects involved in the construction of complete dentures and removable partial dentures. Theoretical background is given in the form of 1hour lecture twice a week.

The course is given in form of theory based slide shows and lectures to ensure that the students understand each practical step of removable dentures.

## **Objectives and Goals:**

- ❖ This is preclinical course designed to develop skills and provide information for utilizing removable prosthodontics (conventional complete and partial dentures) for the management of completely/partially edentulous patients.
- 1. Provide the students with basic current and updated information and sufficient theoretical background to assist them in managing completely/partially edentulous patients using removable complete or partial dentures. This is in the form of lectures from history taking and examination to the recall and assessment stage.
- 2. Provide slide shows on the various steps involved in fabrication of complete and removable partial dentures.
- 3. Prepare the students for the clinics to be familiar with all clinical and laboratory steps in complete denture and Transitional/Definitive removable partial denture construction and how to manage edentulous patients
- 4. Learn how to communicate with other professionals especially dental technicians by the work authorization.

## **Learning Outcomes:**

1. Understand and get familiarized with the consequences of edentulousness, complete and partial denture components and terminology.
2. Be familiar with the anatomy of the denture bearing areas in the mandible and maxilla. Understand the classification of edentulous arches.

3. Be familiar with the principles and theories of impression for complete and partial dentures.
4. Be familiar with required jaw relationships for edentulous patients.
5. Understand the principles of tooth selection, occlusion and setting of teeth for partial and complete denture.
6. Understand the principles of wax denture trial and phonetics for removable denture.
7. Be familiar with the principles and techniques of providing postdams for complete dentures.
8. Be familiar with the requirements of denture delivery & how to follow it up
9. Be familiar with the clinical techniques that are used in our daily practice.
10. Know the functions, shape, form and location of different components of RPD.
11. Understand the basic principles of Removable partial denture (RPD) design.
12. Understand the basic procedure of cast surveying and know the necessary tooth preparation procedures for RPDs.
13. Know how to authorize work to dental technicians.

### **Teaching and Learning Methods:**

- Class lectures, handouts and presentations are designed to achieve the course objectives
- The acquired skills and knowledge during this course will prepare the student for working on real patients and their models
- The students are responsible of the material covered during the course
- Any difficulty or concern during the course should be passed to the instructors and course coordinator immediately.

### **Attendance:**

- It is mandatory for all lectures and laboratory sessions.
- Every student will be allocated to a seat according to the serial number.
- UJ regulations will be applied when you exceed 10% of an excused absence.
- Course drop date is according the UJ regulations.
- Cooperation and professionalism during the lecture time are very helpful and encouraged to facilitate your progress in the course.
- Mr Falah Zubaidi will review the attendance in lectures each time.

### **Participation:**

- All students are highly encouraged to participate in the classes.
- Quizzes and brain storming questions will be essential part of the course.
- Being a positive party during this course will be helpful.

- Never be shy to participate during this course and ask where you get it wrong.
- Students are encouraged to ask questions during the lectures. This will let the staff member know the difficult areas. The student should not think that the question is wasting the time of the lecture. Ask the staff member to repeat the explanation as many as needed to get the answer.
- It is sometimes possible for the staff member not to be sure of the answer. It is the responsibility of the staff member to dig around for the answer and report back to his students.
- Every student should prepare and review for every lecture. Quizzes and assessments are possible through out the lecture time and will include materials covered in the 3rd and 4th years.
- Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lecture, notes on the content of the course, its teaching and assessment methods can be addressed to the course coordinator and the lecturer.

### **Students with special needs:**

- Any student who feels that s/he may need accommodation for any type of disability is encouraged to contact the course coordinator who will be happy to help in any way.
- Accommodations to the course plan can be tailored to the needs of specific individuals after consultations with the dean.

### **Assessment and Exams policy:**

Exams' Format: Theory exams are likely to be in the form of MCQs. However; they might be in other forms including projects, assignments, quizzes and viva.

Graded exams: MCQs will be computer based and the answers will be discussed in the class.

Make up Exams: It is applicable when an acceptable and valid excuse is presented at the applicable time.

Cheating:

- It is unethical and illegal by any means
- UJ regulations will be applicable
- The work should be your own, otherwise it will be scored zero

Dates: According to Registration Unit and the Examination committees.

Quizzes and Participation form portion of the assessment

The following is a suggestion of exams, assessment dates and grade distribution:

Assessment policy		
Assessment Type	Expected Due Date	Weight
Midterm Theoretical exam	According faculty Examination committees	
Participation and Quizzes	Throughout the Module	
Final Theoretical exam	According to Registration Unit	
Total		100

### Professionalism:

- Professions tend to be autonomous and self-sufficient i.e having a high degree of control of own affairs while having freedom to exercise professional judgment.
- As it is a trait, which can be easily enhanced, it is thus subject to self-interest and a continuous process of critical evaluation of ethics and procedure.
- As the students have been part of the university for some considerable time, they would be familiar with general principles about it's beliefs on matters such as quality studentship within this environment. We thus expect our students to develop their professionalism even further together with a high Morality. And Dentistry is one of these professions based on such Ethical codes.
- Gross violations of these formal codes are governed by University laws, which delineate the procedures to determine whether a violation of the code of ethics occurred and, if so, what remedies should be imposed.
- This does not mean the list is complete. We encourage students to abide with the more sensitive approach to this by allowing the practice of a high Morality (or proper behavior), which defines right and wrong by the society, philosophy, religion, and individual conscience.
- Students and their instructors often make ethical choices reflexively. But ethically sensitive situations, where time, emotions and marks are pressured, it becomes all too easy to be blind-sided by temptation. The best antidote to ethical lapses is to commit in advance to a set of ethical principles - your personal ethical code that follows or grows to it
- The course coordinator is always available to talk with the student when problems arise. If a student must talk with the course coordinator after office hours, an appointment can be made for that time
- If you have any problems that require the attention of an instructor, do not wait until the problem is insurmountable. Do not allow tension to build-up to unsolvable proportions.

### Course changes:

- Information contained in this course outline is correct at the time of publication.

- Content of the courses is revised on an ongoing basis to ensure relevance to changing educational, employment needs.
- The course coordinator reserves the right to add or delete material from courses and will endeavor to provide notice of changes to students as soon as possible.
- The timetable may be revised accommodating to holidays & unexpected off days.

**University of Jordan, Faculty of Dentistry  
Third year Students**

<b>Lecture no.</b>	<b>Materials covered</b>	
1	Introduction to the complete denture prosthodontics.	<b>Terminology: Prosthodontics, Dental prosthesis, Denture, surfaces of denture, Impressions, Impression trays. Facial and oral changes induced by edentulousness. Advantages and indications of complete dentures. Over-view of the clinical and laboratory steps of CD construction.</b>
2	Anatomy of the maxillary and mandibular denture bearing areas	
3	The primary impression.	Tissue displacement, factors influencing degree of tissue displacement under impression. Requirements of an impression material. Types of imp materials. Stock trays and types. Production of the primary cast.
4	The secondary impression.	Special trays Techniques and materials (selective mucostatic and mucocompressive techniques, theory and philosophies.). Border moulding and peripheral seal. Posterior palatal seal. Materials for the secondary impressions. Beading and boxing the various final impression materials. The production of the master cast. The water / stone ratio.
5	Mandibular movements	Maxillo-mandibular relations of the edentulous patient, Intercuspal position, Postural position, free way space, Ligamentous position, Muscular position, Envelope of motion, Condylar guidance angle, Bennett movement, Bennett angle, Record bases (temporary and permanent).
6	Vertical dimension	Trimming of the upper rim, lip and cheek support,

	and horizontal relations of the mandible to the maxilla	level of the upper occlusal plane, trimming the lower rim, vertical jaw relationship, horizontal jaw relationship and the gothic arch tracing.
7	Articulators and face bow registration	Classification of articulators. (simple hinge, average value, adjustable, semi and fully). Face bow transfer.
8	Artificial teeth	Types and materials of the artificial teeth Selection of teeth (form and shade)
9	Arrangement of artificial teeth (aesthetic perspective)	Upper anterior teeth setup, Lower anteriors, vertical overlap and horizontal overjet, relation in centric occlusion, Protrusive relation. Lateral excursion.
10	Arrangement of artificial teeth (functional perspective)	The balanced occlusion, anterior-posterior and lateral compensating curves Complete denture occlusion and differences with natural teeth occlusion.
11	Wax up of dentures. Trial denture assessment	Flasking the trial denture.
12	Packing, curing cycles, deflasking, finishing and polishing	.
13	Processing errors	Laboratory remount and occlusal adjustments
14	Finishing the denture. Insertion and follow up. Repairing fractured dentures	.
15	Introduction to Removable Denture Prosthodontics	Sequelae of tooth loss. Indications of RPD. Types of PD's (fixed and removable). Components of RPD. Overview of RPD Assessment, oral cavity preparation, Primary impressions ...etc. Importance of diagnostic casts.
16	Types of RPD	(Tooth vs tissue supported; Transitional vs definitive) Classification of partially edentulous cases, effect of presence of distal extension base. Denture movements.
17	Surveying 1	Objectives, apparatus and tools. Definition of the under cut, path of insertion and withdrawal, path of displacement. Survey line, undercut area vs non undercut.
18	Surveying 2	The need for a path of insertion on a different tilt. Factors determining the most appropriate tilt and path of insertion. Steps for the surveying on a different tilt
19	Guide planes, rest	Guide planes: definition and preparation of anterior

	seats	and posterior guide planes. Rest seats: types, preparation function of rests
20	Direct retainers	types components, requirements (support, retention, receprocation)
21	Maxillary major connectors	All maxillar major connectors, indications, contraindications, criteria and rules of design.
22	Mandibular major connectors	Lingual bar, lingual plate, sublingual bar, cingulum bar, open Kennedy, labial bar.
23	Minor connectors	Rules in the design,
24	Principles of design of the tooth borne partial dentures	
25	Principles of design of the tooth and tissue borne partial dentures	The need for stress breaking elements in such situations. The need for indirect retainers.
26	Special trays and production of the master casts	Final impressions and production of master casts. Surveying master casts.
27	Wax block out. Duplication and production of refractory casts. Wax up, spruing and investing. Burn out and casting.	Types of block out. The need for duplicating the master cast, methods of duplication. Waxing up, investing and the remainder of the laboratory steps for the production of the metal framework.
28	Metal try in, altered cast technique, bite registration, wax try in flasking and insertion	The need to fit the metal framework intra orally The altered cast technique, Jaw relation registration. Occlusion and setting of artificial teeth. Processing in heat cured acrylic resin, polishing and finishing

## **References:**

### ***Textbooks:***

#### Complete Denture Prosthodontics:

- Essentials of Complete Denture Prosthodontics by Sheldon Winkler (1994)
- Prosthodontic Treatment for Edentulous Patients: Complete Dentures and Implant-Supported Protheses by George A. Zarb, Charles L. Bolender, Steven E. Eckert, and Aaron H. Fenton (2003)
- Prosthetic Treatment of the Edentulous Patient, 4th Edition. RM Basker and JC Davenport; 2002, Blackwell Munksgaard Publishers
- The Complete Denture: A Clinical Pathway. Michael MacEntee; 1999. Quintessence Publishing Co, Inc
- Clinical dental Prosthetics, 4th edition. Roy MacGregor
- Complete denture Prosthetics, 3rd Edition. RJ Neill and RI Nairn; 1990

#### Partial Denture prosthodontics:

- McCracken's Removable Partial Prosthodontics (Carr, McCracken's Removable Partial Prosthodontics) by Alan B. Carr, Glen P. McGivney, David T. Brown. Elsevier, 2005, 11<sup>th</sup> ed.
- A color Atlas of Removable Partial Dentures by Basker R.M., Heath J.R., Ralph, J.P. Wolfe Medical Publications Ltd, 1988.
- Stewart's Clinical Removable Partial Prosthodontics by Rodney D. Phoenix, David R. Cagna, Charles F. Defreest. Quintessence Publishing (IL); 4 edition (October 2008)
- Dental Laboratory Procedures. Removable Partial Dentures, Volume 3 (v. 3) (Hardcover) by Kenneth D. Rudd, Robert M. Morrow, Harold F. Eissmann
- Removable Partial Denture Design. Outline Syllabus.5th edition Krol et al: 1999

***Handouts:*** According to the lecturer