



**University of Jordan  
Faculty of Dentistry  
Dept. of Prosthetic Dentistry  
Fifth Year  
Removable Prosthodontics Didactic 3**

**Course Title:** Removable Prosthodontics Didactic (3)

**Course Code:** 1304543

**Prerequisite:** Removable Prosthodontics Didactic (1) and Didactic (2)

**Lecture Time:** Monday **8:00 - 9:00 AM**

**Lecture Venue:** Medical Lecture Hall Compound,  
Lecture Hall 7

**If the lecture day is a Holiday; the lecture will be automatically transferred to the next week.**

### **Course Description:**

This course concludes the last sequence of removable prosthodontic courses leading to a professional degree in dentistry. This is a theoretical based Prosthodontics course where students are theoretically trained on the various steps and aspects involved in the construction of conventional and non-conventional complete dentures and removable partial dentures. Theoretical background is given in the form of 1hour lecture once a week. The students are exposed theoretically to more advanced topics in prosthetic dentistry, which considered as continuation to 3<sup>rd</sup> & 4<sup>th</sup> year prosthodontic courses.

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.

This course introduces the students to the conventional and non-conventional techniques used in the construction of removable prosthesis. Knowledge attained to complete this level brings the student to higher levels of competency in removable prosthodontics.

### **Objectives and Goals:**

- ❖ The main aim of this theoretical course is to prepare final year students to be dental practitioners who can prove objectively that they possess the adequate level of knowledge they need to treat patients who require different types of removable prosthetic reconstructions. This course is designed to improve skills and provide more advanced information for utilizing conventional and non-conventional removable prosthodontics for the management of completely/partially edentulous patients. It also provides the students with more advanced levels of knowledge regarding the principles and practice of complete dentures, partial dentures, treatment planning, copy dentures, overdentures, attachments, maxillofacial prosthodontics, pre-prosthetic surgery, implants and dental technology in relation to prosthetic dentistry.
- 1. Provide the students with more advanced current and updated information and sufficient theoretical background to assist them in managing completely/partially edentulous patients using conventional and non-conventional removable prosthodontics. This is in the form of lectures.

2. Prepare the students for the clinics to be familiar with all clinical and laboratory steps in conventional and non-conventional complete denture and Transitional/Definitive removable partial denture construction and how to manage edentulous patients
3. Learn how to communicate with other professionals especially dental technicians by the work authorization.
4. Provide the student with sufficient and more advanced theoretical background to assist them in managing edentulous and partially dentate patients. This is in the form of slide show and lectures on the various steps involved in fabrication of conventional and non-conventional complete and removable partial dentures.

### **Learning Outcomes:**

1. Be more oriented and able to tackle the problem solving issues and the more sophisticated prosthodontic treatment.
2. Be more aware and familiarized with the consequences of edentulousness, complete and partial denture components and terminology.
3. Gain more competency in formulation of the most appropriate treatment plan. Identifying patient's problems and rendering a diagnosis requires insight to a patient's social and medico dental background.
4. Be more familiar with the anatomy of the denture bearing areas in the mandible and maxilla and how to overcome anatomical obstacles to prosthodontic treatment.
5. Be more familiar with the principles and theories of impression for conventional and non-conventional complete and partial dentures.
6. Be more familiar with required jaw relationships for edentulous patients.
7. Have better understanding of the principles of tooth selection, occlusion and setting of teeth for conventional and non-conventional partial and complete denture.
8. Have better understanding of wax denture trial and phonetics for removable denture.
9. Be more familiar with the principles and techniques of providing postdams for conventional and non-conventional complete dentures.
10. Be more familiar with the requirements of denture delivery & how to follow it up
11. Be more familiar with the clinical techniques that are used in our daily practice for construction of the prostheses and maintenance of the hard and soft tissues.
12. Gain more advanced knowledge on the management of problems and complication of the removable prosthesis.
13. Be more aware of the principles of preprosthetic surgery.
14. Display an understanding of the current concepts in Implant Prosthodontics.
15. Gain more advanced knowledge regarding the functions, shape, form and location of different components of RPD.
16. Have better understanding of the principles RPD design.
17. Have better understanding of the procedure of cast surveying and tooth preparation procedures for RPDs.
18. 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 more advanced cases and with better understanding and knowledge.
- 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.
- 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
- Making any kind of disruption during lecture time will affect you negatively.
- 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 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> 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.

### **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, 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

**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.

**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 day

**University of Jordan, Faculty of Dentistry  
Prosthodontics 3; Fifth year Students, 2009/2010  
Lecture Series, 1st Semester**

<b>Lecture no.</b>	<b>Lecture</b>	<b>Materials covered</b>
1	Periodontal consideration in Removable Partial Denture treatment (1)	The periodontium in relation to the natural teeth and effect on the future foundation of the removable denture Reaction of bone to forces and the process of bone resorption
2	Periodontal consideration in Removable Partial Denture treatment (2)	The effect of the provision of acrylic RPD on periodontal health. The effect of distal extension base RPD on the periodontium Design aspects that limits deleterious effect of the provision of removable appliances on the supporting tissues.

		Proper use of the removable appliances
3	Biometric approach for Complete Denture design	The biometric approach to the complete denture design and construction. Pattern of bone resorption. Landmarks to positions of the predecessors. The biometric method of impression making. Biometric special trays. Land marks to determine lip support and vertical dimension of occlusion
4	Immediate replacement Complete Denture (1)	Definition Planned tooth extraction prior to immediate replacement Extraction due to dental caries Extraction due to periodontal involvement Extraction due to malocclusion Extraction for aesthetic reasons Indications Advantages Disadvantages Impression techniques for Immediate replacement
5	Immediate replacement Complete Denture (2)	Types of Immediate replacement dentures Socketted immediate replacement dentures Immediate replacement dentures with semi-flange Immediate replacement dentures with full flange Immediate replacement dentures built after excisional alveolectomy Immediate replacement dentures built after incisional alveolectomy Clinical cases showing before and after immediate replacement treatment
6	Relining and Rebasing Complete dentures	Relining complete dentures Rebasing complete dentures Indications for relining and rebasing complete dentures General considerations Denture preparation The impression techniques Essentials
7	Complete Denture Duplication	Definition Indication, Contraindication, Advantages and Disadvantages Different methods for denture duplication.
8	Types of Removable Partial Denture	Definition Classification according to type of denture base Describing the different types of RPD and its indication

9	Overdenture prosthesis 1	Concept, Advantages of Overdenture, Indications and contraindications, Types,
10	Overdenture Prosthesis (2)	Patient selection, abutment selection, periodontal , surgical and indodontic consideration Sequence of treatment
11	Overdenture Prosthesis (3)	Abutment preparation, metal coping preparation Plaque control of the abutment teeth, Plaque control of the denture, Care of the root face, Patient instructions
12	Precision Attachments	Overdenture and Precision attachments Overdenture attachments, Types, indications and Drawbacks Precision attachments. Classification. Types. Indications .contraindications
13	Maxillofacial Prostheses 1	Definition objectives of maxillofacial prostheses Para-oral defects Materials used for facials prostheses and its properties Restoration of Nasal, Auricular and Orbital Defects
14	Maxillofacial prostheses 2	Defect of the maxilla, Classification , Types Acquired or congenital defects. Classification The obturators, Definition, Types and fabrication methods
15	Relining bounded saddle Removable Partial Dentures	Relining bounded saddle Removable Partial Dentures Relining procedures using simple addition impression technique Removal of undercuts Reducing the thickness of bases Border molding Final impression Withdrawal and accuracy check Replacement of impression in the mouth Pickup alginate impression Pouring the pickup impression Separating the impression from cast Packing with fresh PMMA mix Processing, finishing and polishing Insertion and occlusal adjustment
16	Relining and Rebasing Distal Extension Removable Partial	Diagnosis of the problem Indications The alginate test The relining technique:

	Dentures	<ul style="list-style-type: none"> <li>Removal of undercuts</li> <li>Reducing the thickness of bases</li> <li>Border molding</li> <li>Final impression</li> <li>Withdrawal and accuracy check</li> <li>Replacement of impression in the mouth</li> <li>Pickup alginate impression</li> <li>Pouring the pickup impression</li> <li>Flasking the poured impression rightaway</li> <li>Deflasking</li> <li>Packing with fresh PMMA mix</li> <li>Processing, finishing and polishing</li> <li>Insertion and occlusal adjustment</li> </ul>
17	Anterior Hyperfunction Syndrome	<ul style="list-style-type: none"> <li>Definition</li> <li>Changes occurring at AHS</li> <li>Management of AHS</li> <li>Surgical intervention</li> <li>Prosthetic management</li> <li>Maximizing retentive forces</li> <li>Minimizing displacing forces</li> <li>Essentials</li> </ul>
18	Diagnosing TMDs	Masticatory muscle disorders, TMJ disorders: Derangements of the condyle-disc complex, Structural incompatibility of the articular surfaces. Inflammatory disorders of the TMJ.
19	Prosthodontic management of TMDs including occlusal therapy and enhancing anterior guidance	Treatment goals, Treatment planning for occlusal therapy, rule of thirds, Factors influencing treatment planning, Selective grinding.
20	Occlusal splints and other orthopaedic appliances	Stabilization appliance, anterior positioning appliance, anterior bite plane, posterior bite plane, pivoting appliance. Indications, construction procedure of occlusal splints. Limitations
21	Single Complete Denture opposed by natural dentitions	<ul style="list-style-type: none"> <li>Difficulties associated with single denture treatment</li> <li>Irregular occlusal plane</li> <li>Wide tooth dimensions</li> <li>Discrepancy in strength of teeth</li> <li>Management of the difficulties related to single denture</li> <li>Enameloplasty</li> <li>Overlay prostheses</li> <li>Fixed prostheses</li> <li>Consequences of failure in management of the related difficulties</li> </ul>

		Essentials
22	Geriatric Prosthodontics	Special considerations for the elderly The geriatric period Ageing changes of the elderly Oral and perioral changes Changes of the oral mucosa Changes within the neuromuscular system Essentials
23	Incremental Modification and Habituation Therapy of the Elderly	Occlusal pivot Deprogramming the masticatory muscles Correcting the vertical dimension of occlusion Recording the centric jaw relation Functionally generated path of occlusion Monoplane teeth Essentials
24	Management of alveolar ridge resorption by Distraction Osteogenesis	Definition Principles of distraction Applications Images studies Pathophysiology Advantages Indications Contraindications Complications
25	Oral Implantology (1)	History of dental implantation. Osseointegration and the work by Branemark and colleagues. Principles of osseointegration. Implant surfaces and implant design and components. Indications and contraindications, advantages and disadvantages of implant therapy.
26	Oral Implantology (2)	Treatment planning, history, examination, radiographic examination, surgical stents and diagnostic wax up. Preparation of the patient for implant therapy. Patient review and maintenance.
27	Oral Implantology (3)	Principles of implant surgery. Surgical complications, The need for bone graft and sinus lifting.
28	Oral Implantology (4)	Principles of prosthetic rehabilitation. Impression making types of prostheses used. Implant failure and complications.

**Please note that lecture series as well as the grade distribution might be modified and changed according to certain circumstances and this will be announced to the students in advance.**

## **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)
- G.A Zarb; C.L. Bolender; J.C. Hickey and G.E Carlsson: Prosthodontic Treatment for Edentulous Patients 12th edition,2004. Mosby Company
- 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
- McCord JF, Grant AA: A clinical Guide to Complete Denture Prosthetics. 2000, BDJ Books
- McCord JF, Smith P, Grey N: Treatment of Edentulous Patients. 2004, Churchill Livingston
- Complete denture Prosthetics, 3rd Edition. RJ Neill and RI Nairn; 1990
- Clinical Removable Prosthodontics. Davenport et al, 2000, BDJ Books.

#### 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
- Davenport JC, Basker RM, Heath JR, Ralph JP, Glantz PO, Hammond P: A Clinical Guide to Removable Partial Denture Design. 2000, BDJ Books.
- Davenport JC, Basker RM, Heath JR, Ralph JP, Glantz PO, Hammond P: A Clinical Guide to Removable Partial Denture. 2000, BDJ Books.

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