

Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences

Course Information	
Course Title	Fixed Prosthodontics III
Course Number	TDEN334
Prerequisites	TDEN333
Lecture time & location	
Lab time & location	
Course coordinator	Maha Alomari, BSc, MDS
Co. instructors	Dr Abdel rahim Bibars, BSc, PhD & Alina Al Twal, BSc, MDS
Office Location	Faculty of Applied Medical Sciences/ 2 nd floor
Office Phone	02/ 7201000 ext. (26885)
Office Hours	Subject to change
Teaching Assistants	Supervisors of dental technology laboratory
Course Description	
<p>This course is designed to the undergraduate students at the 3rd year and it is three Credit hours (1Cr Theoretical, 2 Cr Practical). The course will provide the students with:</p> <ul style="list-style-type: none"> • The necessary training on the various laboratory steps involved in the fabrication of metal ceramic fixed partial dentures and crowns. • In addition to a theoretical background which includes explanations to technical and clinical aspects of metal ceramic fixed prostheses. 	
Feedback	
<p>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 also sent by e-mail</p>	

Text Book	
Title	Contemporary Fixed Prosthodontics
Author(s)	Rosentiel S F, Land M F & Fujimoto J.
Publisher	Mosby
Year	2006
Edition	4 th
Other References	1. Shillingburg H T <i>et al.</i> 1997. Fundamentals of Fixed Prosthodontics. 3 rd Edition Quintessence. 2. Hammerle C <i>et al.</i> 2008. Dental Ceramics: Essential Aspects for Clinical practice. 1 st Edition. Quintessence.

Course Objectives		Weights
1-To provide the students addition theoretical background to guide them while constructing the metal-ceramic fixed prostheses		10%
2- To provide further handling the equipments and materials used in the construction of fixed prostheses in the proper way.		10%
3-To provide more training on the various laboratory steps involved in the fabrication of the metal-ceramic restorations		50%
4- To provide the students theoretical knowledge in extended applications of fixed prosthodontics. i.e. retainers for removable partial denture and non-rigid connector (attachments) of fixed partial denture		10%
5- Introduce the all ceramic restorations to the students		10%
6- Provide the students a solid knowledge about the porcelain characterizations.		10%
Assessment Policy		
Assessment Type	Weight	Total
First Exam	10 %	60%
Second Exam	10%	
Lab continuous Assessments	30%	
Lab midterm exam	10%	
Final Exam (Theoretical)	15 %	40%
Final Exam (Practical)	25 %	

Teaching & Learning Methods
<p>There will be a weekly lecture for 1hour, and one weekly lab for 6 hours during which a demonstration will be given for half an hour, followed by individual supervised lab sessions.</p> <p>Students will perform a finished two 3 units fixed partial dentures (one anterior and one posterior) and post and core from A to Z at lab .At the end of each step they will be assessed by dental technology supervisors.</p>

Course Content (Theory)			
Week	Topic	Chapter in Text / handouts	Lecturer
Week 1	Course orientation	Syllabus distribution	M. Alomari
Week 2	Introduction to all-ceramic restorations	Chap. 1 (Hammerle <i>et al</i>) & Chap. 25 (Rosentiel <i>et al</i>)	M. Alomari
Week 3	All-ceramic systems	Chap. 2 (Hammerle <i>et al</i>) Chap. 25 (Rosentiel <i>et al</i>)	M. Alomari

Week 4	Rigid connectors of FPD- soldering of FPDs	Chap. 28 (Rosentiel <i>et al</i>)	M. Alomari
Week 5	Non-rigid connectors of FPD- Attachments	Chap. 21 & 28 (Rosentiel <i>et al</i>) & Handouts	M. Alomari
Week 6	First Exam	Study hard	M. Alomari
Week 7	Advanced methods in teeth shade determination	Chap. 23 (Rosentiel <i>et al</i>) & Handouts	M. Alomari
Week 8	Shade and light & porcelain characterizations I	Chap. 23 (Rosentiel <i>et al</i>) & Handouts	M. Alomari
Week 9	porcelain characterizations II	Handouts	M. Alomari
Week 10	Intracoronal restorations	Chap. 12 (Shillingburg <i>et al</i>)	A. Bibars
Week 11	Second Exam	Study hard	M. Alomari & A. Bibars
Week 12	Problems in fixed prosthodontics	Handouts	A. Bibars
Week 13	Principles of occlusion in fixed prostheses	Chap. 4 (Rosentiel <i>et al</i>) & Chap. 2 (Shillingburg <i>et al</i>)	A. Bibars
Week 14	Introduction to Fixed-Removable prostheses	Chap. 21 (Rosentiel <i>et al</i>)	M. Alomari
Week 15	Fabrication of a retainer for RPDs	Chap. 21 (Rosentiel <i>et al</i>)	M. Alomari
Week 16	Final Exam	Good luck	M. Alomari & A. Bibars

Course Content (Lab)	
Week	Topic
Week 1	Cast preparation + Mounting
Week 2	Cont. cast preparation + mounting
Week 3	Full wax up of Upper Anterior bridge
Week 4	Cut back of Upper Ant. bridge (framework substructure) + Investing and casting of bridge
Week 5	fitting and finishing of metal substructure (Upper Ant. Bridge)
Week 6	Porcelain Build up of upper bridges
Week 7	Cont. Porcelain Build up of upper bridges
Week 8	Wax-up of Lower Posterior bridge

Week 9	Investing and casting of the lower bridge + wax up of post & core and investing
Week 10	fitting and finishing of metal substructure (Lower Posterior bridge) + Finishing of post and core
Week 11	Porcelain Build up of lower bridges
Week 12	Cont. Porcelain Build up of lower bridges
Week 13	Catch up lab
Week 14	Final practical exam

Laboratory continuous assessment sheet	
Requirements	marks
1. Working cast & die prep. U (10)%	
1- length and width of base	1- /2
2-parallel dies	2- /1
3-dies not broken/easily removed	3- /2
4-pins	4- /1
5 –finish line & die spacer	5- /4
2. Working cast & die prep. L(10)%	
1- length and width of base	1- /2
2-parallel dies	2- /1
3-dies not broken/easily removed	3- /2
4-pins	4- /1
5 –finish line & die spacer	5- /4
3. Mounting (10)%	
1- pin in midline	1- / 1
2- smooth	2- / 1
3- stable	3- / 1
4- position of cast in articulator	4- / 2
5- correct bite	5- / 1
6- clean, no excess	6- / 2
7- definitive line between plaster & base / pins and sleeves of base	7- / 2
4. Full wax up of anterior bridge (10%)	
1-contour (labial &lingual)	1- / 2
2-margin	2- /2
3-connector	3- /2
4-pontic (ridge side)	4- /1
5- incisal edges & occlusion	5- /2
6-contact point	6- /1

5. cut back of anterior bridge (10%)	
1-contour	1- / 2
2-margin	2- / 2
3-connector	3- / 1
4-pontic clearance (ridge side)	4- / 1
5-champher finish line	5- / 1
6-thickness / occlusal clearance	6- / 1
7-colar (shape and width)	7- / 1
8- butt joint	8- / 1
6. Metal finishing ant. bridge (10%)	
1-fitting	1- / 2
2-finishing	
*connector	* / 1
*no sharp edges	* / 1
*thickness	* / 1
*contour	* / 1
* margins/champher finish line	* / 2
*Colar	* / 1
*butt joint	* / 1
7- Porcelain buildup of the anterior bridge (15%)	
1- contour	1- / 2
2- occlusion	2- / 1.5
3-morphology	3- / 3
4- MC- junction	4- / 2
5- pontic ridge side contact – (shape & position)	5- / 1
6 -shade	6- / 2
* layers (enamel & dentine)	
* metal coverage by opaque	
* matching with shade guide	
7-Polishing (porcelain& metal)	7- / 1.5
8-contact point	8- / 2
8. Waxing of posterior bridge (10%)	
1-contour	1- / 2
2-margin	2- / 2
3-connector	3- / 1
4-pontic clearance (ridge side)	4- / 1
5-champher finish line	5- / 1
6-thickness / occlusal clearance	6- / 1
7-colar (shape and width)	7- / 1
8- butt joint	8- / 1

9. Metal finishing post. bridge (10%)	
1-fitting	1- / 2
2-finishing	2-
*connector	* /1
*no sharp edges	* /1
*thickness	* /1
*contour	* /1
* margins/champher finish line	* / 2
*Colar	* / 1
*butt joint	* / 1
10. Porcelain buildup of the posterior bridge (15%)	
1- contour	1- / 2
2- occlusion	2- / 1.5
3-morphology	3- / 3
4- MC- junction	4- / 2
5- pontic ridge side contact – (shape & position)	5- / 1
6 -shade	6- / 2
* layers (enamel & dentine)	
* metal coverage by opaque	
* matching with shade guide	
7-Polishing (porcelain& metal)	7- /1.5
8-contact point	8- / 2
11- Post & core (10%)	
1-wax	1- /5
*post part	* /2
*core part	* /2
*finish line	* /1
2-metal	2- /5
*fitting & finish line	* /2
*finishing	* /1
* core part	* /2

Additional Notes	
Note	Any changes in this syllabus will be announced
Exams	Students are required to sit for the 3 semester examinations (first, second and final) in addition to the midterm and final practical exams
Cheating	Cheating during exam will result in dismissal from the exam hall and the student will be penalized according to JUST regulations
Attendance	<ul style="list-style-type: none"> - The students are expected to attend at least 90%of the theory and practical sessions in order to pass the course. -JUST requires the faculty member to assign ZERO grade (35%) if a student misses 10% of the classes without an excuse. - Sign in sheet will be distributed at the beginning of the lecture. - Questions are welcome during lectures.

