



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

TDEN232 Fixed Prosthodontics (1) - JNQF Level: 7

Second Semester 2023-2024

**Course Catalog**

1 Credit Hours. This course is designed to the undergraduate students at the 2rd year. It is a one theoretical Credit hour. The course will provide the students with the necessary theoretical background that includes explanations to technical and clinical aspects during the fabrication of fixed prostheses. in addiion This course also provides the students with the principles of metal ceramic restorations for single unit restorations. The student will also be introduced to the difference between the conventional and digital techniques in the fabrication of fixed restorations.

**Teaching Method:** Blended

**Text Book**

<b>Title</b>	Fundamentals of Fixed Prosthodontics
<b>Author(s)</b>	H.T. Shillingburg
<b>Edition</b>	4th Edition
<b>Short Name</b>	Ref #1
<b>Other Information</b>	

**Instructor**

<b>Name</b>	<b>Mrs. Elina Al Twal</b>
<b>Office Location</b>	Faculty of Applied Medical Sciences building-Second Floor
<b>Office Hours</b>	
<b>Email</b>	eqaltwal@just.edu.jo

**Class Schedule & Room**

Section 1:  
Lecture Time: Sun : 09:30 - 10:30  
Room: M3304

Prerequisites		
Line Number	Course Name	Prerequisite Type
522012	ADS201 Dental Morphology & Occlusion	Prerequisite / Study
512070	TDEN207 Fundamentals Of Dental Technology	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Orientation	
Week 2	Introduction to fixed prosthodontics	<b>Chapter 1</b> From <b>Ref #1</b>
Week 3	Principles of tooth preparation for fixed prostheses.	<b>Chapter 9</b> From <b>Ref #1</b>
Week 4	Fundamentals of Occlusion	<b>Chapter 2</b> From <b>Ref #1</b>
Week 5	Articulators	<b>Chapter 3</b> From <b>Ref #1</b>
Week 6	Working cast and dies	<b>Chapter 18</b> From <b>Ref #1</b>
Week 7	Wax pattern	<b>Chapter 19</b> From <b>Ref #1</b>
Week 8	Investing and casting 1	<b>Chapter 20</b> From <b>Ref #1</b>
Week 9	Investing and casting 2	<b>Chapter 20</b> From <b>Ref #1</b>
Week 10	Midterm exam	
Week 11	Finishing and polishing of fixed prosthesis	<b>Chapter 21</b> From <b>Ref #1</b>
Week 12	Principles of Metal ceramic for single unit restorations (bonding mechanism, coping design and wax pattern coping design))	<b>Chapter 24</b> From <b>Ref #1</b>
Week 13	Principles of Metal ceramic for single unit restorations (Alloy surface treatment and porcelain application)	<b>Chapter 24</b> From <b>Ref #1</b>
Week 14	Principles of Metal ceramic for single unit restorations (Shade selection)	<b>Chapter 22</b> From <b>Ref #1</b>
Week 15	CAD/CAM Technology in fixed prosthodontics	

<b>Mapping of Course Outcomes to Program Outcomes and NQF Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
Understanding of the science of fixed Prosthodontics ,the indications to the various fixed prostheses such as crowns, bridges and inlays and onlays and the basic principles of tooth preparation [5PLO 3] [5L7K1]	10%	
Understanding of the concept of occlusion and articulators and then articulate these principles in the fabrication of fixed prostheses. [1PLO 3] [1L7K1]	15%	
Gaining thorough understanding of the processing steps during fabrication of fixed prosthesis such as fabrication of the working cast, waxing of the fixed restoration, spruing, investing, casting and finishing of the fixed restoration, this is coupled with attaining the necessary knowledge of how to avoid errors in each of the abovementioned processing steps [1PLO 3] [1L7K1]	40%	
Understanding the principles of metal ceramics for single crown restorations ( bonding mechanism, coping design, alloy surface treatment and porcelain shade and application) [1PLO 3] [1L7K1]	25%	
Be aware of the application of the new technologies (digital technology) versus the conventional methods in the fabrication of fixed prostheses [1PLO 7] [1L7K1]	10%	

<b>Relationship to Program Student Outcomes (Out of 100%)</b>									
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10
		90				10			

<b>Relationship to NQF Outcomes (Out of 100%)</b>
L7K1
100

<b>Evaluation</b>	
<b>Assessment Tool</b>	<b>Weight</b>
Midterm	50%
Final Exam	50%

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