Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences
Second Semester
Course Syllabus

Course Information

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Fixed Prosthodontics1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Code</td>
<td>TDEN232</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>TDEN213</td>
</tr>
<tr>
<td>Course Website</td>
<td></td>
</tr>
<tr>
<td>Instructor</td>
<td>Dr Esam Alalem</td>
</tr>
<tr>
<td>Office Location</td>
<td>Faculty of Applied Medical Sciences</td>
</tr>
<tr>
<td>Office Phone#</td>
<td>23567</td>
</tr>
<tr>
<td>Office Hours</td>
<td>wed 9-11 am</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:ealem@just.edu.jo">ealem@just.edu.jo</a></td>
</tr>
<tr>
<td>Teaching Assistant</td>
<td>Supervisors at Dental Technology Lab</td>
</tr>
</tbody>
</table>

Course Description

This course is designed to the undergraduate students at the second year and it is three Credit hours (1Cr Theoretical, 2Cr Practical). The course will provide the students with the necessary training on the various laboratory steps involved in the fabrication of metal fixed partial dentures and crowns. In addition to a theoretical background which includes explanations to technical and clinical aspects of fixed partial dentures, and crowns.

Text Book

<table>
<thead>
<tr>
<th>Title</th>
<th>Fundamentals of Fixed Prosthodontics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>H.T. Shillingburg</td>
</tr>
<tr>
<td>Publisher</td>
<td>Quintessence</td>
</tr>
<tr>
<td>Year</td>
<td>1997</td>
</tr>
<tr>
<td>Edition</td>
<td>3rd edition</td>
</tr>
<tr>
<td>Book Website</td>
<td></td>
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</table>
### Assessment

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Expected Due Date</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Exam</td>
<td>6th Week</td>
<td>10%</td>
</tr>
<tr>
<td>Second Exam</td>
<td>12th Week</td>
<td>10%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>16th Week</td>
<td>20% Theory 20% Practical</td>
</tr>
<tr>
<td>Assignments</td>
<td>Continuous assessment at lab</td>
<td>35%</td>
</tr>
<tr>
<td>Participation</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Attendance</td>
<td></td>
<td>---</td>
</tr>
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</table>

### Course Objectives

<table>
<thead>
<tr>
<th>Course Objectives</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide the students with sufficient theoretical background to help them with the laboratory steps involved in the fabrication of metal crowns, metal fixed, partial dentures and post-crowns.</td>
<td>40%</td>
</tr>
<tr>
<td>2. To train the students to handle the equipments and materials used in the construction of restorations in the proper way.</td>
<td>10%</td>
</tr>
<tr>
<td>3. Provide training on the various laboratory steps involved in the fabrication of metal crowns, metal fixed, partial dentures and post-crowns.</td>
<td>50%</td>
</tr>
</tbody>
</table>

### Teaching & Learning Methods

There will be one lecture for one hour and two labs sessions for 6 hours every week during which a demonstration will be given for 30 minutes followed by individual supervised lab sessions. Students will perform a finished two metal crowns, finished one three-unit metal FPD and post-crowns from A to Z at lab. At the end of each lab they will be assessed by dental technology supervisors.
<table>
<thead>
<tr>
<th>Learning Outcomes: Upon successful completion of this course, students will be able to</th>
<th>Related Objective(s)</th>
<th>Reference(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Understand the treatment methods for partial edentulous mouth</td>
</tr>
<tr>
<td></td>
<td>1,2,3</td>
<td>Understand the principles of clinical and laboratory steps for metal fixed prosthodontics</td>
</tr>
<tr>
<td></td>
<td>1,3</td>
<td>Be familiar with the different materials and instruments used in the various clinical and technical procedures involved in construction of fixed prosthodontics</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Construct two metal crowns, one metal three unit bridge, and one post-crown.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Construct one post-crown</td>
</tr>
</tbody>
</table>

**Useful Resources**

Web site: www.ada.org
<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Chapter in Text (handouts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>introduction to crown and bridge work 1</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>2</td>
<td>Clinical introduction to crown and bridge work 2</td>
<td>handouts</td>
</tr>
<tr>
<td>3</td>
<td>Articulators and mounting procedure</td>
<td>Chapter 3, 5</td>
</tr>
<tr>
<td>4</td>
<td>Working casts and dies</td>
<td>Chapter 18</td>
</tr>
<tr>
<td>5</td>
<td>Wax patterns 1</td>
<td>Chapter 19</td>
</tr>
<tr>
<td>6</td>
<td>First Exam</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Wax patterns 2</td>
<td>Chapter 19</td>
</tr>
<tr>
<td>8</td>
<td>Investing</td>
<td>Chapter 21</td>
</tr>
<tr>
<td>9</td>
<td>casting</td>
<td>Chapter 21</td>
</tr>
<tr>
<td>10</td>
<td>Finishing and polishing</td>
<td>Chapter 22</td>
</tr>
<tr>
<td>11</td>
<td>Pontic design and fabrication</td>
<td>Chapter 26</td>
</tr>
<tr>
<td>12</td>
<td>Second Exam</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Provisional restorations</td>
<td>Chapter 15</td>
</tr>
<tr>
<td>14</td>
<td>Post crown</td>
<td>Chapter 13</td>
</tr>
<tr>
<td>15</td>
<td>Solder joints and other connectors</td>
<td>Chapter 27</td>
</tr>
<tr>
<td>16</td>
<td>Final Exam</td>
<td></td>
</tr>
</tbody>
</table>
### Course Content (Laboratory)

<table>
<thead>
<tr>
<th>Week</th>
<th>Lab step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pouring impression and cast preparation</td>
</tr>
<tr>
<td>2</td>
<td>Pindexing, mounting and die preparation</td>
</tr>
<tr>
<td>3</td>
<td>Pindexing, mounting and die preparation</td>
</tr>
<tr>
<td>4</td>
<td>Wax-up of crown (anterior)</td>
</tr>
<tr>
<td>5</td>
<td>Wax-up of crown (posterior)</td>
</tr>
<tr>
<td>6</td>
<td>Investing and casting of crown</td>
</tr>
<tr>
<td>7</td>
<td>Divesting, finishing, and polishing of crown</td>
</tr>
<tr>
<td>8</td>
<td>Divesting, finishing, and polishing of crown</td>
</tr>
<tr>
<td>9</td>
<td>Wax-up of FPD</td>
</tr>
<tr>
<td>10</td>
<td>Wax-up of FPD</td>
</tr>
<tr>
<td>11</td>
<td>Investing and casting of FPD</td>
</tr>
<tr>
<td>12</td>
<td>divesting &amp; finishing of FPD</td>
</tr>
<tr>
<td>13</td>
<td>Wax up of post and core</td>
</tr>
<tr>
<td>14</td>
<td>finishing of post and core</td>
</tr>
<tr>
<td>15</td>
<td>Final practical exam</td>
</tr>
</tbody>
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### Additional Notes
- The students are expected to attend at least 80% of the practical sessions in order to pass the course. Each unexcused absence will result in 2 marks being deducted from the total average. 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.
- cheating during exam will result in dismissal from the exam hall and the student will be penalized according to JUST regulations.