Course Specification

Course Title : Dental Anatomy and Morphology
Course Code : RDS 110
Course Director(s): Dr. Abdullah Al Jamhan (DUC)
                  Dr. Haifa Barakah (MUC)
Department : Restorative Dental Sciences
Academic Year : 1434-1435H (2013-2014G)
# Course Specification

<table>
<thead>
<tr>
<th>Institution</th>
<th>King Saud University</th>
</tr>
</thead>
<tbody>
<tr>
<td>College/Department</td>
<td>College of Dentistry</td>
</tr>
</tbody>
</table>

## A Course Identification and General Information

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Course title and code</strong> DENTAL ANATOMY AND MORPHOLOGY - RDS 110</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Credit hours</strong> 2 credit hours (1+1)</td>
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<tr>
<td>3.</td>
<td><strong>Program(s) in which the course is offered.</strong> Bachelor of dental surgery, BDS</td>
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<td></td>
<td>*(If general elective available in many programs indicate this rather than list</td>
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<tr>
<td></td>
<td>programs)*</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Name of faculty member responsible for the course</strong> Dr. Abdullah Al Jamhan -</td>
</tr>
<tr>
<td></td>
<td>DUC Dr. Haifa Barakah - MUC</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Level/year at which this course is offered</strong> First year-first semester</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Pre-requisites for this course (if any)</strong> none</td>
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<tr>
<td>7.</td>
<td><strong>Co-requisites for this course (if any)</strong> none</td>
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<tr>
<td>8.</td>
<td><strong>Location if not on main campus</strong> Malaz University Campus</td>
</tr>
</tbody>
</table>
## B Objectives

1. **Summary of the main learning outcomes for students enrolled in the course.**

   This course is designed to provide the student with the basic elements of dental anatomy & morphology as an essential pre-requisite for other dental courses. At the end of the course the students should be able to:

   1) Describe the terms and expressions used in dental anatomy and morphology with proficiency (1.1)
   2) Use different notations methods to Record teeth, but with particular emphasis on the method recommended by the International Dental Federation (FDI). (2.2)
   3) Distinguish the morphological characteristics of different set, arch, and traits of dentition. (2.2)
   4) Demonstrate the relationship of teeth to one another as well as the relation between the adjacent and opposing teeth (1.1, 2.2)
   5) Demonstrate proficiency in manual skills by carving in wax the different missing surfaces of all teeth to their normal anatomical and morphological features. (5.1, 5.2, 5.3)

2. **Briefly describe any plans for developing and improving the course that are being implemented. (eg increased use of IT or web based reference material, changes in content as a result of new research in the field)**

   - Rearrangement of the laboratory manual contents was done
   - BlackBoard LM system is introduced for better and faster communication (posting announcements, Grades, & discussions related to the course).
   - Providing Large-sized teeth models for better understanding of the anatomical details.
   - Using short videos to demonstrate the waxing technique step by step (sent by email).
C. **Course Description** (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

<table>
<thead>
<tr>
<th>Topic</th>
<th>No of Weeks</th>
<th>Contact hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Dental Anatomy &amp; Morphology</td>
<td>1</td>
<td>1+2</td>
</tr>
<tr>
<td>Tooth Anatomy &amp; Notation</td>
<td>2</td>
<td>1+2</td>
</tr>
<tr>
<td>Dental Terminology of Permanent Dentition</td>
<td>1</td>
<td>1+2</td>
</tr>
<tr>
<td>Descriptive Anatomy of Maxillary Permanent incisors &amp; Mandibular Permanent incisors</td>
<td>2</td>
<td>2+4</td>
</tr>
<tr>
<td>Descriptive Anatomy of Maxillary and Mandibular Permanent canines</td>
<td>1</td>
<td>1+2</td>
</tr>
<tr>
<td>Descriptive Anatomy of Maxillary Permanent Premolars &amp; Mandibular Permanent Premolars</td>
<td>2</td>
<td>2+4</td>
</tr>
<tr>
<td>Descriptive Anatomy of Maxillary 1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt;&amp; 3&lt;sup&gt;rd&lt;/sup&gt; Permanent Molars</td>
<td>2</td>
<td>2+4</td>
</tr>
<tr>
<td>Descriptive Anatomy of Mandibular 1&lt;sup&gt;st&lt;/sup&gt;, 2&lt;sup&gt;nd&lt;/sup&gt;&amp; 3&lt;sup&gt;rd&lt;/sup&gt; Permanent Molars</td>
<td>2</td>
<td>2+4</td>
</tr>
<tr>
<td>Articulation of Teeth</td>
<td>1</td>
<td>1+2</td>
</tr>
</tbody>
</table>

2. Course components (total contact hours per semester):

| Lecture: 14 | Tutorial: | Practical/Fieldwork/Internship: 13 laboratory sessions | Other: 39 contact hours | Other: |
3. Additional private study/learning hours expected for students per week. (This should be an average for the semester not a specific requirement in each week)

4. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;
- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

a. Knowledge

At the end of the course the students should be able to:

1. Recognize anatomy and morphology of the natural dentition (1.1)
2. Demonstrate sound knowledge of the terms and expressions used in dental anatomy and morphology (1.1)
3. Identify wax instruments and waxing techniques. (1.4)
4. Demonstrate understanding of safety regulations for proper use of Bunsen burner.

(ii) Teaching strategies to be used to develop that knowledge

Lectures & group discussions.

(iii) Methods of assessment of knowledge acquired

Written assessment exams, mid-semester exam, and Final exam.

b. Cognitive Skills
At the end of the course the students should be able to:

1. Analyze the relationship of teeth to one another as well as the relation between the adjacent and opposing teeth
2. Distinguish the morphological characteristics of different kinds of teeth.

(ii) Teaching strategies to be used to develop these cognitive skills
Lectures, Laboratory demonstration, group discussions, practical projects.

(iii) Methods of assessment of students cognitive skills
Written & practical evaluation, student self evaluation (lab).

c. Interpersonal Skills and Responsibility

At the end of the course the students should be able to:

1. Demonstrate a good behavior during the lectures and labs.

(ii) Teaching strategies to be used to develop these skills and abilities
- Role modeling and instructional guidance by the teaching staff on how to interact with dental professional staff.
- Laboratory assigned activities to be performed in a timely manner.

(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility
Subjective evaluation by the instructors

e. Psychomotor Skills (if applicable)

At the end of the course the student should be able to

1. Use waxing instruments properly and efficiently.
2. Operate in three dimensions to apply wax properly & carve missing parts of the teeth using waxing instruments.

(ii) Teaching strategies to be used to develop these skills
Laboratory demonstration, lab manual regulations & group discussion.

(iii) Methods of assessment of students psychomotor skills

**Weekly laboratory projects**

5. **Schedule of Assessment Tasks for Students During the Semester**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Assessment task (eg. essay, test, group project, examination etc.)</th>
<th>Week due</th>
<th>Proportion of Final Assessment</th>
</tr>
</thead>
</table>
| Continuous assessment (60%) | o 2 continuous assessment exams  
 o Mid-Semester written examination  
 o Weekly practical projects  
 o Mid-Semester practical exam  
 o Subjective evaluation | Week 4 and 11  
 Week 7  
 Weekly  
 Week 17 | 10%  
 15%  
 20%  
 10%  
 5% |
| Final exam (40%)   | o Final written Examination  
 o Final practical examination  
 ✓ Teeth identification 5%  
 ✓ Tooth waxing 10% | Week 15  
 Week 15 | 25%  
 15% |

**D. Student Support**

1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)
   - Available at working time.
   - Available at office hours.
   - Available at laboratory for supervision, support, & advice.
   - Online support (email, Black Board LMS)
### E. Learning Resources

1. **Required Text(s)**
   - Wheeler’s Dental Anatomy, Physiology and Occlusion 9th edition 2010. NELSON and ASH, W.B. Saunders Company

2. **Essential References**
   - Wheeler’s Dental Anatomy, Physiology and Occlusion 9th edition 2010. NELSON and ASH, W.B. Saunders Company

3. **Recommended Books and Reference Material (Journals, Reports, etc) (Attach List)**

4. **Electronic Materials, Web Sites etc**
   - Teeth Waxing Videos

5. **Other learning material such as computer-based programs/CD, professional standards/regulations**
   - CD of Anatomy (available with Wheeler’s book)

### F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie. number of seats in classrooms and laboratories, extent of computer access etc.)

1. **Accommodation (Lecture rooms, laboratories, etc.)**
   - Lecture room preferably with wireless network (for online assessment)
   - Laboratory with Bunsen burners
<table>
<thead>
<tr>
<th>2. Computing resources</th>
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<tr>
<th>3. Other resources (specify -- eg. If specific laboratory equipment is required, list requirements or attach list)</th>
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<tbody>
<tr>
<td>Giant tooth models are needed for better morphology demonstration</td>
</tr>
</tbody>
</table>

### G Course Evaluation and Improvement Processes

<table>
<thead>
<tr>
<th>1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching</th>
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</thead>
<tbody>
<tr>
<td>Questionnaires distributed to obtain student feedback</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>3 Processes for Improvement of Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending courses &amp; workshops to improve teaching skills &amp; methods in</td>
</tr>
<tr>
<td>The skill development department in KSU</td>
</tr>
<tr>
<td>The national center for e-learning &amp; distance learning</td>
</tr>
<tr>
<td>Critical Feedback from contributors in the course</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Processes for Verifying Standards of Student Achievement (eg. check marking by an independent faculty member of a sample of student work, periodic exchange and remarking of a sample of assignments with a faculty member in another institution)</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.</th>
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</thead>
<tbody>
<tr>
<td>End-of-course evaluation &amp; discussion with co-director in addition to feedback from contributors.</td>
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</tbody>
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8
RDS 110
DENTAL ANATOMY AND MORPHOLOGY
FIRST YEAR
(First Semester)
1434-1435H (2013-2014G)

Course Director:
DR. ABDULLAH AL JAMHAN

Course Contributors:
Prof. Khamis Hassan,
Dr. Salman Al Sufayyan,
Dr. Maan Al Shaafi,
Dr. Alaa El Araby,
Dr. Ihab Mousa
Dr. Fahad Al Khudairy,
Dr. Yasser Al Fawaz,
Dr. Abdulrhman Al Shabib,
Dr. Hamad Al Gmaiah
COURSE DESCRIPTION

This is the first pre-clinical operative course that consists of one main component, Dental Anatomy and Morphology. This course is provided by the RDS Department in the first semester during the first year of the BDS program. It is a (1+1+0) course, equivalent to 2 credit hours. It is designed to provide the student with the basic elements of tooth morphology as an essential pre-requisite for other dental courses. The course comprises lectures and practical sessions. Using wax, students restore the missing coronal surfaces of complete tooth models by a wax carving technique. This is designed to reinforce the theoretical knowledge gained in the lectures, as well as contribute towards the development of manual dexterity, a skill which is essential in the practice of dentistry. Identification of natural tooth specimens forms a significant part of the practical component of the course.

COURSE OBJECTIVES

At the end of the 1st semester the students should be able to:

1. Apply the terms and expressions used in dental anatomy and morphology with proficiency.

2. Record teeth, using different notations, but with particular emphasis on the method recommended by the International Dental Federation (FDI).

3. Understand the relationship of teeth to one another as well as the relation between the adjacent and opposing teeth

4. Understand the teeth alignments, articulation and the self-protective feature of the dentition.

5. Distinguish the morphological characteristics of different kinds of teeth. Thus, there are traits which separate the teeth of the upper from the lower arches, the molars from the incisors and the first molar from the second molar.

6. Develop his/her manual skills by carving in wax the different missing surfaces of all teeth.

7. Restore in casting wax, the missing surfaces in Dentoform by carving to normal anatomical and morphological features.

Important Note: Each student should collect natural teeth, clean and keep them in 10% formaline. Fail to do this will affect his/her progress and grades.
METHODS OF INSTRUCTION

Primary method of instruction is lecture and group discussion, in addition to laboratory demonstration.

RECOMMENDED TEXTBOOKS

Wheeler’s Dental Anatomy, Physiology and Occlusion

9th edition 2010,
ASH and NELSON, W.B. Saunders Company

Woelfel’s Dental Anatomy Its relevance to Dentistry

7th edition 2007,
Lippincott Williams & Wilkins
IMPORTANT COURSE INFORMATIONS

A. ATTENDANCE

Attendance for all lectures and laboratory sessions are mandatory. It is strongly discouraged to miss lectures and/or laboratory sessions without a written excuse that is approved by the course director and/or the co-course director. Failing to comply with attendance rules will affect your grades.

B. ETHICAL AND PROFESSIONAL BEHAVIOR

1. All students are expected to behave in an ethical and professional manner during the lectures and labs as part of their development toward competent dental professionals.

2. During lectures, students should be respectful of the needs of others to listen and understand and should not disrupt or interrupt the lecture.

3. Students are expected to maintain the security of their written exams and should not give or receive unauthorized aid or assistance.

4. During the laboratory, students should accept criticism in a professional manner and be respectful of the needs and time of others.

5. Students should assess their work accurately, learn to admit weaknesses, take criticism professionally, and strive to improve.

6. Students should not take the work of others as their own during the weekly lab exercises or exams.

C. LABORATORY REGULATIONS

During Laboratory hours kindly comply with the following regulations:

1. Each student will be assigned to a group & each group will have an instructor, you are expected to adhere to your assigned group & bench every session for the whole semester.

2. You must bring your Lab manual each session for assessment and grading. Failure to do so will affect your weekly evaluation.

3. Clean up before and after yourself. You will be held responsible for the cleanliness of your own bench during lab hours each session.

4. Be organized and Do your own work at your assigned bench.

5. Plan your time wisely and efficiently to submit your assigned projects on time.

# LECTURE SCHEDULE
## FIRST SEMESTER
### 2013-2014G
### RDS 110

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TOPIC</th>
<th>LECTURER</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept. 3, 2013</td>
<td>Course orientation</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>2</td>
<td>Sept. 10, 2013</td>
<td>Introduction to Dental Anatomy and Morphology</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>3</td>
<td>Sept. 17, 2013</td>
<td>Tooth Anatomy and Notation</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>4</td>
<td>Sept. 24, 2013</td>
<td>Dental Terminology of Permanent Dentition</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>5</td>
<td>Oct. 1, 2013</td>
<td>Descriptive Anatomy of Maxillary Permanent incisors</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>6</td>
<td>Oct. 8, 2013</td>
<td>Descriptive Anatomy of Mandibular Permanent incisors</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>7</td>
<td>Oct. 22, 2013</td>
<td>Descriptive Anatomy of Maxillary and Mandibular Permanent canines</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>8</td>
<td>Oct. 29, 2013</td>
<td><strong>MID-SEMESTER EXAMINATION</strong></td>
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<tr>
<td>9</td>
<td>Nov. 5, 2013</td>
<td>Descriptive Anatomy of Maxillary Permanent Premolars</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>10</td>
<td>Nov. 12, 2013</td>
<td>Descriptive Anatomy of Mandibular Permanent Premolars</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>11</td>
<td>Nov. 19, 2013</td>
<td>Descriptive Anatomy of Maxillary 1st Permanent Molars</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>12</td>
<td>Nov. 26, 2013</td>
<td>Descriptive Anatomy of Maxillary 2nd and 3rd Permanent Molars</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>13</td>
<td>Dec. 3, 2013</td>
<td>Descriptive Anatomy of Mandibular 1st Permanent Molar</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>14</td>
<td>Dec. 10, 2013</td>
<td>Descriptive Anatomy of Mandibular 2nd and 3rd Permanent Molars</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>15</td>
<td>Dec. 17, 2013</td>
<td>Articulation of Teeth</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>16</td>
<td>Dec. 24, 2013</td>
<td>Revision</td>
<td>Dr. Al Jamhan</td>
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**HAJJ VACATION**

<table>
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<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TOPIC</th>
<th>LECTURER</th>
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<tbody>
<tr>
<td>9</td>
<td>Nov. 5, 2013</td>
<td>Descriptive Anatomy of Maxillary Permanent Premolars</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>10</td>
<td>Nov. 12, 2013</td>
<td>Descriptive Anatomy of Mandibular Permanent Premolars</td>
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<td>11</td>
<td>Nov. 19, 2013</td>
<td>Descriptive Anatomy of Maxillary 1st Permanent Molars</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>12</td>
<td>Nov. 26, 2013</td>
<td>Descriptive Anatomy of Maxillary 2nd and 3rd Permanent Molars</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>13</td>
<td>Dec. 3, 2013</td>
<td>Descriptive Anatomy of Mandibular 1st Permanent Molar</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>14</td>
<td>Dec. 10, 2013</td>
<td>Descriptive Anatomy of Mandibular 2nd and 3rd Permanent Molars</td>
<td>Dr. Al Jamhan</td>
</tr>
<tr>
<td>15</td>
<td>Dec. 17, 2013</td>
<td>Articulation of Teeth</td>
<td>Dr. Al Jamhan</td>
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<tr>
<td>16</td>
<td>Dec. 24, 2013</td>
<td>Revision</td>
<td>Dr. Al Jamhan</td>
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</tbody>
</table>

**FINAL EXAMINATION**
1. **Introduction to Dental Morphology I**
   - Outline of the course. Grading system and attendance.
   - Structures that form the foundation of teeth “Jaws”
   - Teeth – “Primary, Mixed and Permanent Dentition – Development Data (Lobes) “terms of reference in both identification”
   - Dental formula of Permanent Dentition
   - Function of teeth
   **Reading:** Handout, Wheeler’s Dental Anatomy, chapter 1

2. **Tooth Anatomy and Notation**
   a) The macro anatomy of teeth
      - Crown A/C
      - Neck
      - Root
      - Pulp
      - Enamel Dentin
      - Amelo-cemental junction
      - Cementum-Dentin
      - Chamber and RC
   b) Tooth numbering systems
   **Reading:** Wheeler’s Dental Anatomy, chapter 1

3. **Dental Terminology of Permanent Dentition**
   a) Tooth surfaces and divisions of the crown
   b) Landmarks of teeth.
      These will include:
      A) Elevations
      - Cusps
      - Tubercle
      - Cingulum
      - Ridges
      B) Depressions
      - Fossae (Central, Marginal) → Pits
      - Grooves → Fissures
      C) Mamelon
   c) Trait categories
   **Reading:** Wheeler’s Dental Anatomy, chapter 1
4. Descriptive anatomy of Maxillary Permanent incisors from different aspects.  
   **Reading:** Wheeler’s Dental Anatomy, chapter 6

5. Descriptive anatomy of Mandibular Permanent incisors from different aspects.  
   **Reading:** Wheeler’s Dental Anatomy, chapter 7

6. Descriptive anatomy of Maxillary and Mandibular Permanent canines from different aspects.  
   **Reading:** Wheeler’s Dental Anatomy, chapter 8

7. Mid-semester examination.

8. Descriptive anatomy of Maxillary Permanent Premolars from different aspects.  
   **Reading:** Wheeler’s Dental Anatomy, chapter 9

9. Descriptive anatomy of Mandibular Permanent Premolars from different aspects.  
   **Reading:** Wheeler’s Dental Anatomy, chapter 10

10. Descriptive anatomy of Maxillary 1st Permanent Molar from different aspects.  
    **Reading:** Wheeler’s Dental Anatomy, chapter 11

11. Descriptive anatomy of Maxillary 2nd & 3rd Permanent Molars from different aspects.  
    **Reading:** Wheeler’s Dental Anatomy, chapter 11

12. Descriptive anatomy of Mandibular 1st Permanent Molar from different aspects.  
    **Reading:** Wheeler’s Dental Anatomy, chapter 12

13. Descriptive anatomy of 2nd and 3rd mandibular permanent molars from different aspects.  
    **Reading:** Wheeler’s Dental Anatomy, chapter 12

    **Reading:** Handout, Wheeler’s Dental Anatomy, chapter 5
<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept. 3, 2013</td>
<td>-</td>
</tr>
</tbody>
</table>
| 2    | Sept. 10, 2013 | ✓ Laboratory Orientation: seating arrangement, storage boxes, air gas control.  
                                                                   ✓ Identification of permanent Dentition: Incisors, canines, premolars and molars. "Plaster models" |
| 3    | Sept. 17, 2013 | ✓ The macro anatomy of teeth: Section on a tooth models.  
                                                                   ✓ Numbering systems: Dentoform or plaster models.  |
| 4    | Sept. 24, 2013 | ✓ Identification of tooth surfaces and crown divisions  
                                                                   ✓ Landmarks of teeth: Dentoform or plaster models.  
                                                                   ✓ Identification of waxing instruments and uses.  
                                                                   ✓ Demonstration for waxing instruments and carving of the labial aspect of maxillary central incisor "plaster models" |
| 5    | Oct. 1, 2013  | ✓ First continuous assessment exam  
                                                                   ✓ Waxing and carving the labial aspect of maxillary central incisor "plaster models" |
| 6    | Oct. 8, 2013  | ✓ Identification of permanent central and lateral incisors "natural teeth"  
                                                                   ✓ Waxing and carving the lingual aspect of maxillary left central incisor "plaster models" |
| 7    | Oct. 22, 2013 | ✓ Identification of permanent maxillary and mandibular canines "natural teeth"  
                                                                   ✓ Waxing and carving the mesial aspect of maxillary left canine "plaster models" |
| 8    | Oct. 29, 2013 | MID-SEMESTER LABORATORY ASSESSMENT                                                                                                         |
| 9    | Nov. 5, 2013  | ✓ Identification of permanent maxillary premolars. "Natural teeth"  
                                                                   ✓ Waxing and carving of maxillary left 2nd premolar "Dentoform" |
| 10   | Nov. 12, 2013 | ✓ Identification of permanent mandibular premolars. "Natural teeth"  
                                                                   ✓ Waxing and carving of mandibular 1st premolar "Dentoform" |
| 11   | Nov. 19, 2013 | ✓ Waxing and carving of maxillary 1st molar "Dentoform".  |
| 12   | Nov. 26, 2013 | ✓ Second continuous assessment exam  
                                                                   ✓ Identification of maxillary molars, "natural teeth".  |
| 13   | Dec. 3, 2013  | ✓ Waxing and carving of mandibular 1" molar. "Dentoform" |
| 14   | Dec. 10, 2013 | ✓ Identification of mandibular molars “natural teeth”  
                                                                   ✓ Waxing and carving of mandibular 2nd molar. "Dentoform" |
                                                                   ✓ Catch-up |
| 16   | Dec. 24, 2013 | FINAL LABORATORY ASSESSMENT                                                                                                             |
EXAMINATIONS AND EVALUATION METHODS

To pass this course successfully, students must pass 60% of the total grade (both theoretical and practical).

A- Continuous Assessment & Mid-Sem (60%)

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>Two continuous assessments</td>
<td>10</td>
</tr>
<tr>
<td>Mid-Semester written examination</td>
<td>15</td>
</tr>
<tr>
<td>Weekly practical projects</td>
<td>20</td>
</tr>
<tr>
<td>Mid-Semester Practical Examination + teeth identification</td>
<td>10</td>
</tr>
<tr>
<td>Subjective evaluation</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

B- Final (40%)

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of semester Final written examination</td>
<td>25</td>
</tr>
<tr>
<td>Final practical examination</td>
<td></td>
</tr>
<tr>
<td>Teeth identification</td>
<td>5</td>
</tr>
<tr>
<td>Tooth wax up</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
</tr>
</tbody>
</table>

*The Weekly practical evaluation will be on the following exercises:*

<table>
<thead>
<tr>
<th>On Plaster Models</th>
<th>On Dentoform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waxing of labial aspect of maxillary central incisor</td>
<td>Waxing of maxillary 2nd premolar</td>
</tr>
<tr>
<td>Waxing of lingual aspect of maxillary central incisor</td>
<td>Waxing of maxillary 1st molar</td>
</tr>
<tr>
<td>Waxing of mesial aspect of maxillary canine</td>
<td>Waxing of mandibular 1st molar</td>
</tr>
</tbody>
</table>

**NOTE:** Waxing projects should be finished and submitted for evaluation and grading by the end of your weekly session. *Project that is not finished on time will be graded in the beginning of the next session out of 80% of the proposed grade.*