

**University of Jordan**  
**Faculty of Dentistry**  
**Department of Conservative Dentistry**  
**Dental Anatomy (Theory)**

**Course Title:** Dental Anatomy (Theory)

**Course Code:** 1302103

**Prerequisite:** None

**Course Coordinator:** Dr Firas Alsoleihat

**Instructor:**

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**Year:** 1<sup>st</sup> year- second semester

**Credit:** 1 credit hour

**Prerequisite for:** all other dental courses particularly Prosthodontics & Conservative Dentistry

**Course Objectives:**

This course delineates presentation of dental macro- and micro-morphology and evidence-based chronologies of the human dentitions, while reflecting definitive shifts in modern dental practice. Therefore this course will provide the following objectives:

- Evidence-based chronologies of the human dentitions provide research standards for tooth development and eruption.
- Detailed descriptions of dimension of teeth from all aspects in relation to space problems and arch size.
- Detailed descriptions and illustrated morphologic features of usual/unusual teeth essential for learning biologic variation of tooth morphology.
- Demonstrations on radiographs and pulp chamber and canal morphology in sectioned teeth provide an excellent reference for root canal therapy.
- Clinically useful chronologies show the age of attainment to avoid damage to developing teeth.
- Age prediction chronologies can be used to assess the unknown age of a patient.

- Outlining the relationship of tooth morphology to the periodontium.
- Expanded coverage of the development process of the primary and permanent dentitions related to diagnosing potential space problems and malocclusion.
- Essential concepts of occlusion relevant to restorative dentistry.

### **Learning Outcomes:**

Successful completion of this module should lead to the following learning outcomes:

#### **A. Knowledge and Understanding (student should)**

A1) Be able to discuss/explain chronology, descriptive morphology, and histology of each type of tooth.

A2) Be able to make a distinction between permanent and deciduous teeth from one side and among the permanent dentition from another side.

#### **B. Intellectual skills - with ability to**

B1) Identify and differentiate each type of tooth

B2) Employ definitive shifts in modern dental practice

#### **C. Subject specific skills – with ability to**

C1) Communicate with the instructors, peers, and patients using understandable terminology and sketches when appropriate.

C2) Describe the relationship of vital nerves and blood supply of the pulp to tooth morphology and function.

#### **D. Transferable skills – with ability to**

D1) Strike the balance between self-reliance and seeking help when necessary.

D2) Display an integrated approach to the deployment of communication skills.

### **Teaching methods:**

- Duration: 16 weeks, 16 hours in total
- Lectures: 14 + two exams

### **Modes of assessment:**

- Midterm exam: 40 points, MCQs
- Final Exam: 60 points, MCQs

### Attendance policy:

Lecture attendance is obligatory. The handout and recommended textbook are not comprehensive and additional material will be covered in lectures.

**Expected workload:** an average of studying time from 3 to 4 hours per week should be expected.

### Course Content & Weight:

No.	Lecture Topic
	<b>Introduction</b>
1.	<b>Nomenclature, Formulae for Mammalian Teeth, Tooth Numbering System</b>
2.	<b>Crown &amp; Root, Landmarks, Division into Thirds, Line Angles, and Point Angles</b>
3.	<b>Permanent Maxillary Incisors</b>
4.	<b>Permanent Mandibular Incisors</b>
5.	<b>Permanent Maxillary &amp; Mandibular Canines</b>
6.	<b>Permanent Maxillary Premolar</b>
7.	<b>Permanent Mandibular Premolars</b>
8.	<b>Permanent Maxillary Molars</b>
9.	<b>Permanent Mandibular Molars</b>
10.	<b>Mid-Term Exam</b>
11.	<b>Deciduous Dentition: Chronology, Morphology &amp; Occlusion</b>
12.	<b>Occlusion of Permanent Dentition I</b>
13.	<b>Occlusion of Permanent Dentition II</b>
14.	<b>Physiology of Permanent Dentition</b>
15.	<b>Development &amp; Growth of Teeth</b>
16.	<b>Final Exam</b>

### References and Supporting Material:

1. **Wheeler's Dental Anatomy, Physiology, and Occlusion;** by Major M Ash & Stanley J Nelson, 9<sup>th</sup> edition, W. B. Saunders, 2009.
2. **Dental Anatomy It's Relevance to Dentistry;** by Julian B Woelfel & Rickne C Scheid, 6<sup>th</sup> edition, Williams & Wilkins, 2001.
3. **Wheeler's Atlas of Tooth Form;** by Major M Ash, W. B. Saunders, 1984.
4. **Orban's Oral Histology and Embryology;** by Bhaskar S N, 11<sup>th</sup> edition, Mosby 1991.
5. **Dental Morphology by Van Beek G,** 2nd edition 1983, Butterworth-Heinemann

6. **Nature's Morphology: An Atlas of Tooth Shape and Form**, Shigeo Kataoka, Yoshimi Nishimura and Avishai Sadan, Quintessence Publishing (IL); 1 edition 2002
7. **Dental Functional Morphology: How Teeth Work** (Cambridge Studies in Biological & Evolutionary Anthropology), Peter W Lucas, Cambridge University Press; 1 edition 2004