Republic of Yemen

Ministry of Higher Education & Scientific Research

Emirates International University

Faculty of Dentistry

Department of Conservative Dentistry

Doctor of Dental Surgery (DDS)

Course Specification of

Dental Anatomy I

Course No. ( )

Review committee: Head of the Department Quality Assurance head Dean of Faculty

I. Course Identification and General Information:

1	**Course Title:**	Dental Anatomy I			
2	**Course Code & Number:**	----			
3	**Credit Hours:**	**Credit Hours**	**Theory Hours**		**Lab. Hours**
			Lecture	**Exercise**	
		3	2	--	2
4	**Study Level/ Semester at which this Course is offered:**	1st Level / 1st Semester			
5	**Pre –Requisite (if any):**	-----			
6	**Co –Requisite (if any):**	None			
7	**Program (s) in which the Course is Offered:**	Doctor of Dental Surgery (DDS)			
8	**Language of Teaching the Course:**	English			
9	**Study System:**	Semester based System			
10	**Mode of Delivery:**	Full Time			
11	**Location of Teaching the Course:**	Faculty of Dentistry			
12	**Prepared by:**	Assoc. Prof. Dr. Ibrahim Z. Al-Shami			

II. Course Description:

This course is designed to provide the student with the basic elements of tooth morphology, terminology, dental formulas, dental notation systems, a detailed description of the chronology and morphology of each tooth, anatomical variations and teeth anomalies. this course is an essential pre-requisite for other dental courses, it comprises lectures and laboratory sessions, Upon completion of lectures and the labs, students should be able to carve permanent anterior teeth and premolars with proper anatomy and contour using wax carving technique, Practicing on dental notation systems, teeth interaction in occlusion as well as tooth identification.

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs Learning out of program		
	A. Knowledge and Understanding:	**I, A or E**		
a1	Describe the principles of identification of the different types of teeth, and terminology.		A1	
a2	Identify, the anatomical landmarks, nomenclature of the oral cavity and all teeth.		A1	
a3	Describe the specific anatomical features of anterior teeth and premolars which are important in diagnosis and treatment of oral diseases.		A2	
	B. Intellectual Skills:			
b1	Discuss dental formulas and dental notation systems		B1	
b2	Interpret the physiological tooth form that affects the supporting dental and para-dental tissues.		B1	
	C. Professional and Practical Skills:			
c1	Perform manual wax carving for all permanent anterior teeth and maxillary premolar		C7	
c2	Replace missing tooth surfaces with wax to normal anatomical and morphological features		C2	
c3	Draw to scale two dimensions of posterior teeth following the lectures outline, using the table of measurements provided.		C7	
	D. Transferable Skills:			

d1	Develop a dental vocabulary and the ability to use it in communication with dental assistants and colleagues easily.		**D3**	
d2	Manage time during lab work		**D4**	

(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
a1	Describe the principles of identification of the different types of teeth, and terminology.	Lectures Demonstrations Discussion	Quizzes Midterm Exam Final Exam
a2	Identify, the anatomical landmarks, nomenclature of the oral cavity and all teeth.	Lectures Demonstrations Discussion	Quizzes Midterm Exam Final Exam
a3	Describe the specific anatomical features of anterior teeth and premolars which are important in diagnosis and treatment of oral diseases.	Lectures Demonstrations Discussion	Quizzes Midterm Exam Final Exam

(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
b1	Discuss dental formulas and dental notation systems	Lectures Lab Sessions Demonstrations Discussion	Quizzes Midterm Exam Final Exam Practical Exam Semester work
b2	Interpret the physiological tooth form that affects the supporting dental and para-dental tissues.	Lectures Lab Sessions Demonstrations Discussion	Quizzes Midterm Exam Final Exam Practical Exam Semester work

(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	**Teaching Strategies**	**Assessment Strategies**
c1	Perform manual wax carving for all permanent anterior teeth and maxillary premolar	Demonstration Lab Sessions	Semester Work practical Exam
c2	Replace missing tooth surfaces with wax to normal anatomical and morphological features	Demonstration Lab Sessions	Semester Work practical Exam
c3	Draw to scale two dimensions of posterior teeth following the lectures outline, using the table of measurements provided.	Demonstration Lab Sessions	Semester Work practical Exam
(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	**Teaching Strategies**	**Assessment Strategies**
d1	Develop a dental vocabulary and the ability to use it in communication with dental assistants and colleagues easily.	Discussion	Direct Observation Practical Exam Semester Work
d2	Manage time during lab work	Discussions Demonstrations	Direct Observation Practical Exam Semester Work

IV. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1		Anatomy of orofacial complex: form and function Dento-osseous structures	3	6	a1, a2, a3, b1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
	Fundamentals of Dental Anatomy and terminology	Types of human dentitions Tooth surfaces, line and point angles. Dental formula and notation systems Anatomical landmarks			
4	Morphology of permanent teeth	Crown, root, surfaces and divisions into thirds pulp chambers and canals (endodontic space)	1	2	a1, a2, a3, b1
5	The permanent maxillary central incisors.	Descriptive Anatomy of Maxillary Permanent central incisors.	1	2	a1, a2, a3, b1
6	The permanent maxillary lateral incisors.	Descriptive Anatomy of Maxillary Permanent lateral incisors	1	2	a1, a2, a3, b1
7	The permanent mandibular central incisors.	Descriptive Anatomy of mandibular Permanent central incisors	1	2	a1, a2, a3, b1
8	**Midterm Exam**	**MCQs and essay questions**	1	2	a1, a2, a3, b1
9	The permanent mandibular lateral incisors.	Descriptive Anatomy of mandibular Permanent lateral incisors	1	2	a1, a2, a3, b1
10	The permanent maxillary canine.	Descriptive Anatomy of Permanent maxillary canine	1	2	a1, a2, a3, b1
11	The permanent mandibular canine.	Descriptive Anatomy of Permanent mandibular canine	1	2	a1, a2, a3, b1
12		Forms and functions of teeth Crown outline	1	2	a1, a2, a3, b1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
	Geometric forms and functions of teeth	Facial and lingual crown outline of all teeth Proximal crown outline of anterior teeth, maxillary and mandibular posterior teeth			
13	The Permanent maxillary 1st premolars.	Descriptive Anatomy of Permanent maxillary 1st premolars.	1	2	a1, a2, a3, b1
14	The Permanent maxillary 2nd premolars	Descriptive Anatomy of Permanent maxillary 2nd premolars.	1	2	a1, a2, a3, b1
15	Physiologic tooth form	Contours Proximal contact area Embrasures Oral mucosa Periodontium and attachment apparatus	1	2	a1, a2, a3, b1
16	**Final Exam**	**MCQs and essay questions**	1	2	a1, a2, a3, b1
Number of Weeks /and Units Per Semester			**16**	**32**	

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
1	Introduction	2nd	2	b1, b2,c3, d1
2	Carving of maxillary central incisor	3rd and 4th	4	c1, c2, c3, d1, d2
3	Carving of maxillary lateral incisor	5th	2	c1, c2, c3, d1, d2
4	Carving of mandibular central incisor	6th		c1, c2, c3, d1, d2

No.	Tasks/ Experiments	Week Due	Contact Hours	Learning Outcomes (CILOs)
5	Carving of mandibular lateral incisor	7th	2	c1, c2, c3, d1, d2
6	Carving of maxillary canine	8th and 9th	4	c1, c2, c3, d1, d2
7	Carving of mandibular canine	10th and 11th	4	c1, c2, c3, d1, d2
8	Carving of maxillary premolars	12th and 13th	4	c1, c2, c3, d1, d2
9	Carving of maxillary premolars	14th	2	c1, c2, c3, d1, d2
10	**Practical Exam**	15th	2	b1, b2, c1, c2, c3, d1, d2
Number of Weeks /and Units Per Semester		**14**	**28**	

V. Teaching Strategies of the Course:

Lectures
Lab Sessions
Demonstrations
Discussions

VI. Assessment Methods of the Course:

Quizzes
Midterm Exam
Final Exam
Practical Exam
Semester Work
Direct Observation

VII. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Semester work - wax carving technique for anterior and premolars teeth (laboratory work)	2 -14	10	b1, b2, c1, c2, c3, d1, d2
Total			**10**	

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	**Assignments**	2 -14	10	10%	b1, b2, c1, c2, c3, d1, d2
2	**Quizzes**	6 - 12	10	10 %	a1, a2, a3, b1
3	**Midterm Exam**	8	20	20 %	a1, a2, a3, b1
4	**Practical Exam**	15	20	20 %	b1, b2, c1, c2, c3, d1, d2
5	**Final Exam**	16	40	40 %	a1, a2, a3, b1
Total			**100**	**100%**	

IX. Learning Resources:

1- Required Textbook(s) :

1. Ash & Nelson, 2010: Wheeler's Dental Anatomy Physiology and Occlusion, 9th edition, Saunders
2. Kumar, 2004: Textbook of Dental Anatomy and Tooth Morphology, Jaypee Brothers Publishers

2- Essential References:

1.	Heather J. H. Edgar. Dental Morphology for Anthropology, An Illustrated Manual, 1st Edition. Published by Routledge
2.	Margaret J., Fehrenbach, 2007: Dental Anatomy Coloring Book.
3.	Lippincott Williams & Wilkins) by Rickne C. Scheid.Woelfel's, 2007: Dental Anatomy: Its Relevance to Dentistry.

3- Electronic Materials and Web Sites etc.:

Websites:

1. Dental anatomy by British Dental Association

http://www.3dmouth.org/4/4_intro.cfm

2- Pub med.

3- Sciencedirect

X. Course Policies: (Based on the Uniform Students' By law (2007)

1	**Class Attendance:** Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes.
2	**Tardiness:** A student will be considered late if he/she is not in class after 10 minutes of the start time of class.
3	**Exam Attendance/Punctuality:** No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.
4	**Assignments & Projects:** Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.
5	**Cheating:** Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
6	**Forgery and Impersonation:** Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.
7	**Other policies:**

	The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.

Faculty of **Dentistry**

Department of Conservative Dentistry

Program of Doctor of Dental Surgery (DDS)

Course Plan (Syllabus) of

Dental Anatomy I

Course No. (----------)

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member:	Assoc. Prof. Dr. Ibrahim Z. Al-Shami	**Office Hours**					
Location& Telephone No.:							
E-mail:		SAT	SUN	MON	TUE	WED	THU

II. Course Identification and General Information:

1	**Course Title:**	Dental Anatomy I			
2	**Course Code & Number:**	----			
3	**Credit Hours:**	**Credit Hours**	**Theory Hours**		**Lab. Hours**
			Lecture	**Exercise**	
		3	2	--	2
4	**Study Level/ Semester at which this Course is offered:**	1st Level / 1st Semester			
5	**Pre –Requisite (if any):**	-----			
6	**Co –Requisite (if any):**	None			
7	**Program (s) in which the Course is Offered:**	Doctor of Dental Surgery (DDS)			
8	**Language of Teaching the Course:**	English			
9	**Study System:**	Semester based System			
10	**Mode of Delivery:**	Full Time			
11	**Location of Teaching the Course:**	Faculty of Dentistry			
12	**Prepared by:**	Assoc. Prof. Dr. Ibrahim Z. Al-Shami			

III. Course Description:

This course is designed to provide the student with the basic elements of tooth morphology, terminology, dental formulas, dental notation systems, a detailed description of the chronology and morphology of each tooth, anatomical variations and teeth anomalies. this course is an essential pre-requisite for other dental courses, it comprises lectures and laboratory sessions, Upon completion of lectures and the labs, students should be able to carve permanent anterior teeth and premolars with proper anatomy and contour using wax carving technique, Practicing on dental notation systems, teeth interaction in occlusion as well as tooth identification.

IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

	A. Knowledge and Understanding:
a1	Describe the principles of identification of the different types of teeth, and terminology.
a2	Identify, the anatomical landmarks, nomenclature of the oral cavity and all teeth.
a3	Describe the specific anatomical features of anterior teeth and premolars which are important in diagnosis and treatment of oral diseases.
	B. Intellectual Skills:
b1	Discuss dental formulas and dental notation systems
b2	Interpret the physiological tooth form that affects the supporting dental and para-dental tissues.
	C. Professional and Practical Skills:
c1	Perform manual wax carving for all permanent anterior teeth and maxillary premolar
c2	Replace missing tooth surfaces with wax to normal anatomical and morphological features
c3	Draw to scale two dimensions of posterior teeth following the lectures outline, using the table of measurements provided.
	D. Transferable Skills:
d1	Develop a dental vocabulary and the ability to use it in communication with dental assistants and colleagues easily.
d2	Manage time during lab work

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	Fundamentals of Dental Anatomy and terminology	Anatomy of orofacial complex: form and function Dento-osseous structures	3	6

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		Types of human dentitions Tooth surfaces, line and point angles. Dental formula and notation systems Anatomical landmarks		
4	Morphology of permanent teeth	Crown, root, surfaces and divisions into thirds pulp chambers and canals (endodontic space)	1	2
5	The permanent maxillary central incisors.	Descriptive Anatomy of Maxillary Permanent central incisors.	1	2
6	The permanent maxillary lateral incisors.	Descriptive Anatomy of Maxillary Permanent lateral incisors	1	2
7	The permanent mandibular central incisors.	Descriptive Anatomy of mandibular Permanent central incisors	1	2
8	**Midterm Exam**	**MCQs and essay questions**	1	2
9	The permanent mandibular lateral incisors.	Descriptive Anatomy of mandibular Permanent lateral incisors	1	2
10	The permanent maxillary canine.	Descriptive Anatomy of Permanent maxillary canine	1	2
11	The permanent mandibular canine.	Descriptive Anatomy of Permanent mandibular canine	1	2

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
12	Geometric forms and functions of teeth	Forms and functions of teeth Crown outline Facial and lingual crown outline of all teeth Proximal crown outline of anterior teeth, maxillary and mandibular posterior teeth	1	2
13	The Permanent maxillary 1st premolars.	Descriptive Anatomy of Permanent maxillary 1st premolars.	1	2
14	The Permanent maxillary 2nd premolars	Descriptive Anatomy of Permanent maxillary 2nd premolars.	1	2
15	Physiologic tooth form	Contours Proximal contact area Embrasures Oral mucosa Periodontium and attachment apparatus	1	2
16	**Final Exam**	**MCQs and essay questions**	1	2
Number of Weeks /and Units Per Semester			**16**	**32**

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Week Due	Contact Hours
1	Introduction	2nd	2
2	Carving of maxillary central incisor	3rd and 4th	4

B. Case Studies and Practical Aspect:			
No.	**Tasks/ Experiments**	**Week Due**	**Contact Hours**
3	Carving of maxillary lateral incisor	5th	2
4	Carving of mandibular central incisor	6th	2
5	Carving of mandibular lateral incisor	7th	2
6	Carving of maxillary canine	8th and 9th	4
7	Carving of mandibular canine	10th and 11th	4
8	Carving of maxillary premolars	12th and 13th	4
9	Carving of maxillary premolars	14th	2
10	**Practical Exam**	15th	2
Number of Weeks /and Units Per Semester		**14**	**28**

VI. Teaching Strategies of the Course:

Lectures
Lab Sessions
Demonstrations
Discussions

VII. Assessment Methods of the Course:

Quizzes
Midterm Exam
Final Exam
Practical Exam
Semester Work
Direct Observation

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	Semester work - wax carving technique for anterior and premolars teeth (laboratory work)	2 -14	10
Total			10

IX. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Assignments	2 -14	10	10%
2	Quizzes	6 - 12	10	10 %
3	Midterm Exam	8	20	20 %
4	Practical Exam	15	20	20 %
5	Final Exam	16	40	40 %
Total			100	100%

X. Learning Resources:

1- Required Textbook(s) :

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3- Electronic Materials and Web Sites etc.:
Websites: Dental anatomy by British Dental Association http://www.3dmouth.org/4/4_intro.cfm 2- Pub med. 3- Sciencedirect

XI. Course Policies: (Based on the Uniform Students' Bylaw (2007)

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7	**Other policies:** The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.