

Dow University of Health Sciences

Course Overview

1	Title of Course	Oral Biology & Tooth Morphology	
2 Course Code 101-ORBM Oral Physiology, Oral Embryology, Oral Histology Tooth morphology, TMJ &occlusion		101-ORBM Oral Physiology, Oral Embryology, Oral Histology Tooth morphology, TMJ &occlusion	
3	Institute/ College/ Department	DIKIOHS,DIDC,DDC	
4	Course Coordinator	Dr.Farzeen S Waseem(Chairperson)	
5	Mode of Study	On Campus	
6	Duration	1 year.	
7	Campus/ Location Officed	On Campus/Online-DUHS	
8	Total Credit Hours	Contact Hours 60 theory / 100 Hours(60 +100 credit hours by PMDC)	
9	Accredited by	As per PMC	
10	Date of Commencement of course.	Jan-2022	
11	Date of Evaluation/ Review	Dec-2022	

Course Details

Α	Introduction
	 Oral Biology & Tooth Morphology is a basic science course taught during first year BDS. The subject deals with the development, gross and histological structure, functions and interactions of oral and craniofacial tissues. The subject of Oral Biology and Tooth Morphology includes the following main topics taught in collaboration with Anatomy and Physiology Departments.

	 It includes Oral and Developmental Histology - Tooth Morphology and Occlusion - Oral Physiology - General and Orofacial Embryology 		
	- Oral Anatomy		
	 Understanding of this subject widens the mental comprehension and strengthens the basic concent of different dental science specialties 		
	and strengthens the basic concept of unterent dental science specialties.		
В	Course Objectives		
	The objective of this undergraduate course is to provide students with a sound foundation of oral and dental structures within the oral		
	microenvironment, their interrelationships and their application in clinical		
	dentistry in health and disease		
	Multiple educational methods will be used comprising of		
	self-study, interactive lectures, group discussions, (practical, and manual dexterity skill sessions are dependent in labs cannot be		
	Broad Learning Objectives of the course of Oral Biology & Tooth		
	Morphology .		
	• At the end of the comprehensive online course, the student must		
	have following knowledge and skills:		
	A.ORAL EIVIDR TOLOGT:		
	i. The student must be knowing the the developmental sequences of face, palate, tongue, skull, mandible and maxilla and associated developmental Anomilies		
	ii. Stages of tooth development		
	a. Dental lamina		
	b. Bud stage		
	c. Cap stage d. Farly bell stage		
	e. Advanced bell stage		
	iii. Hard tissue formation and destruction		
	B.ORAL HISTOLOGY:		
	i. Students should be able to differentiate on powerpoint slides		
	Pulp, Periodintal Ligament, Oral Mucosa		
	COURSE NAME, DEGREE, SPRING 2022		

- ii. They must know the composition & detailed Histological structures, Classification, repair, effect of aging of all structures .
- iii. They should know the cycle of Amelogenisis, Dentinogenisis, Cementogenisis

C. ORAL PHYSIOLOGY:

The students must heve the good understanding with dynamic functional and physiological processes carried out during tooth eruption, shedding, deglutination, saliva functions of saliva, Modification of Saliva and bone remodeling.

- 1. Saliva –
- a) Structure and function of Salivary Gland cells
- b) Serous, mucous and myoepithelial cells-ducts- CT elements
- c) Classification and structure of Human Salivary Glands
- d) Major salivary glands- Minor salivary glands- Development and growth
- e) Control of secretion- Saliva
- f) Composition and functions- Clinical considerations
- 2. Repair and regeneration of bone, oral mucosa, glands, salivary glands.

D.TOOTH MORPHOLOGY

The student is expected to have command on following aspects of each tooth anatomical outline, identification points eruption dates

- i. Dental Notation
- ii. Terminology, classification and notations; Dates of eruption;
- iii. Composition of primary and permanent dentition
- iv. Individual characteristics of permanent teeth;
- v. Incisors
- vi. Canines
- vii. Premolars
- viii. Molars
- ix. Variation & anomalies commonly seen

Specific Skills/ achieve by this course

1. Identification of the oral structures

- 2. Miscroscopic study of Oral tissues(on slides as well as on ppt)
- 3. Identification of Deciduous & Permanent teeth (on models of the patients)
- 4. Age estimation by patterns of teeth eruption from plaster casts of different age groups
- 5. Identify on modelsMixed Detition Period: Identifiaction and associated patterns
- 6. Identify on models Primary Dentition Period ,age and associated patterns
- 7. Identify on models Permanent Dentition
- 8. Morphological Identification features of each individual tooth on models

E.TMJ & OCCLUSION:

Students must be familiar with the occlusal relationship of the teeth in the maxillary and mandibular arches to each other, focusing on a working knowledge of the dental arch forms, inter- and intra- arch tooth alignment, and inter-cuspal relationships.

(i) Methods for achieving cognitive objectives

- Interactive lectures using audio visual aids on power point presentation
- Group discussions in LMS (online)
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Focusing the histological slides on powerpoint
- Identification of normal histological structures on slides.
- Drawing and labeling the histological slides on practical log books.

(iii) Methods for achieving affective objectives

- •.
- Group discussions (small online tutorials)
- Online Oral presentations by students

С	Eligibility Criteria
	• Give a list of pre-requisites required for attending this course (who can attend the course?)

	• FSc/ A Level with Premedical subjects And SAT II / IBCC equi	ivalence	
	certificate Student must pass the entry test, has good standing in		
	Matric and FSc		
	 BDS first year enrolled students at DUHS. 		
D	Course Requirements, Rules & Regulations		
	As per DUHS policy		
Ε	Course Plan (TOPIC wise course schedule).		
	LECTURE TOPICS		
	(URAL BIOLOGY)		
	TOPICS		
	Introduction to oral biology & structure of tooth		
	Appearance of the oral cavity		
	Structure of Enamel		
	Investing organic layers on enamel surface		
	Dentine / Puln(Structural organization)		
	Dentine/Pulp(Structural organization)		
	Structure of Cementum		
	Structure of Cementum		
	Structure of Periodontal ligament		
	Oral Mucosa		
	Alveolar Bone		
	Temporomandibular Joint(Structral Organization and		
	Salivary Gland(Structural Organization)		
	Salivary Gland(Secretory Physiology /Nervous control)		

General embryology /Embryology of Face and oral cavity

Embryology of Face and oral cavity

Early Tooth development

Early Tooth development

Amelogenesis

Dentinogenesis/ Development of the Dental pulp

Development of the root and periodontal ligament

Eruption and Shedding

LECTURE TOPICS

TOPICS		
Introduction		
Morphology Of Maxillary Central		
Morphology Of Mandibular Central		
Morphology Of Maxillary and Mandibular Lateral Incisor		
Morphology Of Maxillary Canine		
Morphology Of Mandibular Canine		
Morphology Of Deciduous Anterior Teeth		
Morphology Of Permanent Maxillary First Premolars		
Morphology Of Permanent Maxillary Second Premolars		
Morphology Of Permanent Mandibular First Premolars		
Morphology Of Permanent Mandibular Second Premolars		
Introduction To Molars /Morphology Of Permanent		
Maxillary First Molars		
Morphology Of Permanent Maxillary Second Molars		
Morphology Of Permanent Mandibular First Molars		
Morphology Of Permanent Mandibular Second Molar		
Morphology Of Permanent Maxillary and Mandibular third		
molars		
Morphology of Deciduous Posterior Teeth		
Introduction To Pulp Canal Morphology /Pulp Canal		
Morphology Of Permanent Anterior + Posterior Teeth		
Differences Between Primary And Permanent Dentitions		
(Anterior+Posterior Teeth)		
Concepts of Occlusion (Deciduous Dentition)		
Concepts of Occlusion (Permanent Dentition)		
(Tooth Mornhology)		

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F	Course Assignments	
G	Assessment/Grading Policy	
	As per DUHS POLICY	
Н	Learning Resources	
Cour Berke Tenca Whe In La Tootl The s 1. Po 2. Re 3. Vie 4. Ha	se Books: oviz ates elers b: h Models students will be provided with: over point lectures (near exam) ecorded lectures through LMS deos will be shown in lectures andouts of few topics will be uploaded Course Evaluation	
1	Course Evaluation	
QEC, DUHS takes online evaluation of course as well as faculty from all students at the end of each course.		

J	List of Course Facul	ty	
	Name	Email	Phone
Prof. Tariq	Amynah -DIDC	amynah.tariq@duhs.edu.pk	
Dr.Ha Assis	assan Babar tant Prof-DIDC	hasan.baber@duhs.edu.pk	
Dr.Ai DIDC	f Siddiqui	atif.siddiqi@duhs.edeu.pk	
Dr.M DIDC	omal. Ahmed	momal.ahmed@duhs.edu.pk	