Republic of Yemen

Ministry of Education & Scientific Research

Council of Academic Accreditation & Quality Assurance of Higher Education (CAQA)

21 September University of Medical & Applied Sciences

Faculty of Dentistry

Department of Oral Histology

BDS

Course Specification of

Oral Histology 2

Course Code. (09.11.918)

2024/2025

I. General Information:

1.	**Course Title:**	Oral Histology 2				
2.	**Course Code:**	09.11.918				
3.	**Course Type:**	Mandatory				
4.	**Credit Hours:**	**Credit Hours**	**Theory Contact Hours**		**Practical Contact Hours**	
			Lecture	**Tutorial/ Seminar**	**Lab**	**Clinical**
		2	1	--	2	--
5.	**Level/ Semester at which this Course is offered:**	Second Year/ Second semester				
6.	**Pre –Requisite (if any):**	Oral Histology 1				
7.	**Co –Requisite (if any):**	None				
8.	**Program (s) in which the Course is Offered:**	Bachelor of Dentistry (BDS)				
9.	**Language of Teaching the Course:**	English				
10.	**Location of Teaching the Course:**	Faculty of Dentistry				
11.	**Prepared by:**	Prof. Dr. SMSaeed				
12.	**Date and Number of Approval by Council:**					

II. Course Description:

Oral histology 2 is a continuation of Oral histology 1 which also completes the basic knowledge of structure of oral histology co-related with function. it has two components, a didactic and a practical part. The lecture topics cover the different stages of odontogenesis with details of tooth structure and its supporting tissues as well as the oral tissues and adjoining structures. During each practical session, students should examine slides of the oral and dental tissues covered in the corresponding lectures.

III. Course Description:

III. Course Intended Learning Outcomes (CILOs) : Upon successful completion of the course, students will be able to:		Referenced PILOs		
A. Knowledge and Understanding:		**I, P or M/A**		
a1	Describe the microscopic structure and composition of enamel, dentin, pulp, cementum, periodontal ligament, and alveolar bone.	**I**	**A1**	**Shows knowledge and understanding of concepts, rules and principles related to basic and vital medical sciences, supporting sciences and general culture.**
a2	Explain the process of formation for enamel (amelogenesis) and dentin (dentinogenesis), including the roles of ameloblasts and odontoblasts.			
a3	Summarize the structural and functional characteristics of the oral mucosa, salivary glands, and their importance in oral health.			
a4	Identify the histological features of the dentogingival junction, the maxillary sinus, and the temporomandibular joint.			
B. Intellectual Skills:				
b1	Analyze the relationship between the structure and function of oral tissues and their role in maintaining oral health.	**I**	**B3**	Design a suitable treatment plan for various oral and dental diseases and prioritize treatment.
b2	Compare normal histological features with pathological changes in enamel, dentin, pulp, and periodontal structures.	**M/A**	**B2**	Determines the appropriate and effective way to treat various oral and dental diseases.
C. Professional and Practical Skills:				
c1	Examine histological slides of enamel, dentin, pulp, cementum, and other oral tissues and interpret their structural characteristics under a microscope.	**P**	**C1**	Deals With all the equipment, tools and instruments of different dental materials in a scientifically manner.
c2	Demonstrate the ability to prepare and stain oral tissue samples for histological	**P**	**C3**	Take a comprehensive story for diseases and evaluates the

	examination in laboratory settings.			necessary tests to complete the diagnosis with high efficiency.
	D. Transferable Skills:			
d1	Communicate their findings on oral tissue histology effectively in written and oral presentations using appropriate terminology.	**M/A**	**D1**	Communicates effectively with others and expresses his ideas clearly and objectively.
d2	Apply their understanding of oral histology to clinical problem-solving scenarios, bridging the gap between theory and practice.	**M/A**	**D3**	Develop cognitive abilities and professional and evaluate academic and practical performance.
I= Introduced, P=Practiced or M/A= Mastered/Advanced				

IV. Alignment of Course Intended Learning Outcomes

(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 microscopic structure and composition of enamel, dentin, pulp, cementum, periodontal ligament, and alveolar bone.	▪ Interactive lectures. ▪ Seminar ▪ Self-learning ▪ Group discussions. ▪ Presentations.	▪ Written examinations. ▪ Assignments. ▪ Presentations. ▪ Quizzes. ▪ Oral assessment.
a2	Explain the process of formation for enamel (amelogenesis) and dentin (dentinogenesis), including the roles of ameloblasts and odontoblasts.	▪ Interactive lectures. ▪ Seminar ▪ Self-learning ▪ Group discussions. ▪ Presentations.	▪ Written examinations. ▪ Assignments. ▪ Presentations. ▪ Quizzes. ▪ Oral assessment.
a3	Summarize the structural and functional characteristics of the oral mucosa, salivary glands, and their importance in oral health.	▪ Interactive lectures. ▪ Seminar ▪ Self-learning ▪ Group discussions. ▪ Presentations.	▪ Written examinations. ▪ Assignments. ▪ Presentations. ▪ Quizzes. ▪ Oral

			assessment.
a4	Identify the histological features of the dentogingival junction, the maxillary sinus, and the temporomandibular joint.	▪ Interactive lectures. ▪ Seminar ▪ Self-learning ▪ Group discussions. ▪ Presentations.	▪ Written examinations. ▪ Assignments. ▪ Presentations. ▪ Quizzes. ▪ Oral assessment.
(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:			
	Course Intended Learning Outcomes	**Teaching Strategies**	**Assessment Strategies**
b1	Analyze the relationship between the structure and function of oral tissues and their role in maintaining oral health.	• Problem solving CBL • Problem-based learning scenario PBL • Training • Classroom discussions.	• Written examination • Oral examination • Final Practical Exam. • Home work
b2	Compare normal histological features with pathological changes in enamel, dentin, pulp, and periodontal structures.	• Problem solving CBL • Problem-based learning scenario PBL • Training ▪ Classroom discussions.	• Written examination • Oral examination • Final Practical Exam. ▪ Home 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	Examine histological slides of enamel, dentin, pulp, cementum, and other oral tissues and interpret their structural characteristics under a microscope.	▪ Interactive lectures. ▪ research. ▪ Exercises in labs and clinics. ▪ Seminars. ▪ Presentations. ▪ Discussions in class/lab and clinic ▪ Lab and clinic Training. ▪ Practical sessions.	▪ Assignments. ▪ Presentations. ▪ Oral assessment. ▪ Projects. ▪ Practical lab examination. ▪ Homework assessment.
c2	Demonstrate the ability to prepare and stain oral tissue	▪ Interactive lectures.	▪ Assignments. ▪ Presentations.

	samples for histological examination in laboratory settings.	▪ research. ▪ Exercises in labs and clinics. ▪ Seminars. ▪ Presentations. ▪ Discussions in class/lab and clinic ▪ Lab and clinic Training. ▪ Practical sessions.	▪ Oral assessment. ▪ Projects. ▪ Practical lab examination. ▪ Homework assessment.

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

	Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
d1	Communicate their findings on oral tissue histology effectively in written and oral presentations using appropriate terminology.	• Seminar • Self-learning • Presentation • Discussion ▪ Problem solving.	• Homework • Research ▪ Oral Discussion
d2	Apply their understanding of oral histology to clinical problem-solving scenarios, bridging the gap between theory and practice.	• Seminar • Self-learning • Presentation • Discussion ▪ Problem solving.	• Homework • Research ▪ Oral Discussion

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**Enamel 2/2**	– Enamel structure. – Incremental lines of Retzius. – Neonatal lines. – Surface structures. – The enamel junctions: DEJ	W1	1	a1, a2, b1, b2, d1, d2.

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		and CEJ. – Clinical consideration of Enamel. – Dental caries.			
2	**Dentin**	– Physical characteristics. – Chemical properties. – Structure. – Development. – Clinical considerations.	W2	1	a1, a2, b1, b2, d1, d2.
3	**Pulp**	– Anatomy. – Structural Features. – Functions. – Regressive Changes (Aging). – Development. – Clinical considerations.	W3	1	a1, b2, d1, d2.
4	**Cementum**	– Cementogenesis. – Physical and chemical characteristics. – Classification of cementum. – Histological features of cementum. – Sharpey's fibres. – Clinical considerations.	W4	1	a1, b1, b2, c1, d1, d2.
5	**Periodontal Ligament**	– Development – Structure – principal fibres – Clinical considerations	W5	1	a1, b1, b2, c1, d1, d2.
6	**Alveolar bone**	– Physical and chemical characteristics. – Histological concepts of bone, including cell types (review). – Development of bone in	W6	1	a1, b1, b2, c1, c2, d1, d2.

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		general and alveolar bone in particular. – Histological features of alveolar bone. – Clinical considerations. – Age changes.			
7	**Oral mucosa 1/2**	– Definition and classification. – Development of oral mucosa. – Description of keratinized and non-keratinized oral mucosa. – Lining mucosa.	W7	1	a3, d1, d2.
8	**Midterm Exam**	– MCQs and essay	W8	1	a1, a2, a3, b1, c1, c2, b2, d1, d2.
9	**Oral mucosa 2/2**	– Specialized mucosa. – Masticatory mucosa. – Functions of oral mucosa. – Age changes. – Clinical considerations.	W9	1	a3, b1, d1, d2.
10	**Salivary glands**	– Definition and classification. – Extrinsic (major) salivary glands. – Intrinsic (minor) salivary glands. – Age changes. – Clinical considerations. – Saliva (composition and function).	W10	1	a3, c1, c2, d1, d2.
11	**The Dentogingival Junction**	– Introduction – Development of the junctional Epithelium of the	W11	1	a4, c1, c2, d1, d2.

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
		gingiva – Development cervix of the tooth – Morphology of the dentogingival junction			
12	**Maxillary Sinus**	– Introduction – Development – structure – Relations – Maxillary ostium (opening orifice) – Related structures – Vascular supply – Nerve supply – Histology of maxillary sinus – Sinus epithelium – Functions of the maxillary sinus – Clinical considerations	W12	1	a4, b1, d1, c1, c2, d2.
13	**TMJ**	– Gross Anatomy – Development of the Joint – Histology – Bony structures – Articular fibrous covering – Articular disk – Synovial membrane – Clinical Considerations	W13	1	a4, b1, d1, d2.
14	**Mouth Aging**	– The general concept of ageing. – Effects of ageing in relation to the mouth. – Oral function	W14	1	b1, d1, d2.
15	**Revision**	– General revision	W15	1	a1, a2, a3, a4,

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
					b1, b2, d1, d2.
16	**Final Theoretical Exam**	– MCQs and essay	W16	1	a1, a2, a3, a4, b1, b2, c1, c2, d1, d2.
Number of Weeks /and Units Per Semester			**16**	**16**	

B. Practical Aspect (Lab/Clinical) (if any):

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	**Enamel: Enamel rods and Hunter-Schreger bands**	W2	2	c1, c2
2	**Dentin: Dentinal tubules**	W3	2	c1, c2
3	**Pulp: Pulp tissues and its cellular components.**	W4	2	c1, c2
4	**Cementum: Sharpey's fibers.**	W5	2	c1, c2
5	**Periodontal Ligament (PDL): its fiber orientation.**	W6	2	c1, c2
6	**Mid-term Exam**	W7	2	c1, c2
7	**Alveolar Bone: Decalcified sections of alveolar bone.**	W8	2	c1, c2
8	**Oral Mucosa: keratinized and non-keratinized epithelium.**	W9	2	c1, c2
9	**Salivary Glands: Major and minor salivary glands: Parotid, submandibular, and sublingual glands.**	W10	2	c1, c2
10	**The Dentogingival Junction: The junctional epithelium.**	W11	2	c1, c2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
11	**Maxillary Sinus: Clinical cases of maxillary sinus involvement in dental infections.**	W12	2	c1, c2
12	**Temporomandibular Joint (TMJ): TMJ's articular disc.**	W13	2	c1, c2
13	**Mouth Aging: Compare young vs. aged oral tissues under the microscope.**	W14	2	c1, c2
14	**Final Exam (practical)**	W15	2	c1, c2
Number of Weeks /and Units Per Semester		**15**	**30**	

C. Tutorial Aspect (if any):

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
1	None			
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

No.	Tutorial	Number of Weeks	Contact Hours	Learning Outcomes (CILOs)
14				
Number of Weeks /and Units Per Semester				

VI. Assignments:

No.	Assignments	Week Due	Mark	Aligned CILOs (symbols)
1	Assignment 1: Preparing a data show about disorders related to enamel, dentin, pulp, and cementum.	W4	2	a1. a2, b2, d1
2	Assignment 2: Writing a report covering the following topics: Identification and characterization of PDL stem cells, their potential for regenerative therapies, and current research trends and future directions in PDL stem cell therapy.	W7	2	b2, d1
3	Assignment 3: Design a table that compares between the different types of oral mucosa using histological slides, structural differences and functional significance.	W7	2	a3, b1, d1
4	Assignment 4: Conduct a literature review and prepare a presentation that includes: histological changes observed in taste buds with age, the relation between taste perception and changes in oral mucosa and clinical implications of altered taste perception in older adults.	W10	2	a4, b1, d2
5	Assignment 5: Preparing hand-written notes of the lectures taken during the term.	W13	2	a1, a2, a3, a4, b1, b2, d1, d2
Total			10	

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes
1	**Tasks and Assignments**	during the term	10	10%	a1, a2, a3, a4, b1, b2, d1, d2.
2	**Quiz / Oral Examination**	W12	10	10%	a1, a2, a3, a4
3	**Mid-Term Theoretical Exam**	W8	20	20%	a1, a2, a3, a4, b1, b2, d1, d2.
4	**Mid-Term Practical Exam**	W7	5	5%	c1, c2.
5	**Final Practical Exam including Project Presentation & Evaluation**	W 15	15	15%	c1, c2.
6	**Final Theoretical Exam**	W16	40	40%	a1, a2, a3, a4, b1, b2, d1, d2.
Total			**100**	**100%**	

VIII. Learning Resources:

- *Written in the following order:* Author, Year of publication, Title, Edition, Place of publication, Publisher.

1- Required Textbook(s) (maximum two):

1- Bhaskar S N. (2011) Orban's Oral Histology and Embryology. 11th ed. Reed Elsevier India Private Limited. India.

2- Chiego D J. (2019) Essentials of oral histology and embryology. 5th ed. Elsevier. USA.

2- Essential References:

1- BenTajeh S M S. (2018) Oral Histology and Embryology. 14th ed. FEMSALE. Yemen.

2- Nancy A. (2025) Ten Cate's Oral Histology: Development, Structure, and Function. 10th ed. Elsevier. USA.

3- Electronic Materials and Web Sites etc.:

Websites:

1- https://www.anatomicum.com/en/?articleid=58

2- https://histologyguide.com/

3- https://histology.medicine.umich.edu/full-slide-list

IX.	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 Oral Histology

Program of Dentistry (BDS)

Course Plan (Syllabus) of Oral Histology 2

Course Code. 09.11.918

I. Information about Faculty Member Responsible for the Course:							
Name of Faculty Member:	Prof. Dr. SMSaeed	Office Hours					
Location& Telephone No.:	771098083	2					
E-mail:	smsmohd35@gmail.com	SAT	SUN	MON	TUE	WED	THU

2025/2026

II. Course Identification and General Information:

	Course Title:	Oral Histology 2
	Course Code:	09.11.918
	Course Type:	**Mandatory**
	Credit Hours:	**Credit Hours**: 2 **Theory Contact Hours**: Lecture 1; Tutorial/Seminar -- **Practical Contact Hours**: Lab 2; **Clinical** --
	Level/ Semester at which this Course is offered:	Second Year/ Second semester
	Pre –Requisite (if any):	Oral Histology 1
	Co –Requisite (if any):	None
	Program (s) in which the Course is Offered:	Bachelor of Dentistry (BDS)
	Language of Teaching the Course:	English
	Location of Teaching the Course:	Faculty of Dentistry
	Prepared by:	Prof. Dr. SMSaeed
	Date and Number of Approval by Council:	

III. Course Description:

Oral histology 2 is a continuation of Oral histology 1 which also completes the basic knowledge of structure of oral histology co-related with function. it has two components, a didactic and a practical part. The lecture topics cover the different stages of odontogenesis with details of tooth structure and its supporting tissues as well as the oral tissues and adjoining structures. During each practical session, students should examine slides of the oral and dental tissues covered in the

corresponding lectures.

IV. Course Intended Learning Outcomes (CILOs) :

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

	A. **Knowledge and Understanding:**
a1	Describe the microscopic structure and composition of enamel, dentin, pulp, cementum, periodontal ligament, and alveolar bone.
a2	Explain the process of formation for enamel (amelogenesis) and dentin (dentinogenesis), including the roles of ameloblasts and odontoblasts.
a3	Summarize the structural and functional characteristics of the oral mucosa, salivary glands, and their importance in oral health.
a4	Identify **the histological features** of the dentogingival junction, the maxillary sinus, and the temporomandibular joint.
	B. **Intellectual Skills:**
b1	Analyze the relationship between the structure and function of oral tissues and their role in maintaining oral health.
b2	Compare normal histological features with pathological changes in enamel, dentin, pulp, and periodontal structures.
	C. **Professional and Practical Skills:**
c1	Examine histological slides of enamel, dentin, pulp, cementum, and other oral tissues and interpret their structural characteristics under a microscope.
c2	**Demonstrate** the ability to prepare and stain oral tissue samples for histological examination in laboratory settings.
	D. **Transferable Skills:**
d1	Communicate **their findings on** oral tissue histology effectively in written and oral presentations using appropriate terminology.
d2	Apply their understanding of oral histology to clinical problem-solving scenarios, bridging the gap between theory and practice.

I= Introduced, P=Practiced or M/A= Mastered/Advanced

V. Course Contents:

A. Theoretical Aspect:

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	**Enamel 2/2**	– Enamel structure. – Incremental lines of Retzius. – Neonatal lines. – Surface structures. – The enamel junctions: DEJ and CEJ. – Clinical consideration of Enamel. – Dental caries.	W1	1

2	**Dentin**	– Physical characteristics.
		– Chemical properties.
		  – Structure.
		  – Development.
		  – Clinical considerations.
			W2	1

3	**Pulp**	– Anatomy.
		– Structural Features.
		  – Functions.
		  – Regressive Changes (Aging).
		  – Development.
		  – Clinical considerations.
			W3	1

4	**Cementum**	– Cementogenesis.
		– Physical and chemical characteristics.
		  – Classification of cementum.
		  – Histological features of cementum.
		  – Sharpey's fibres.
		  – Clinical considerations.
			W4	1

5	**Periodontal Ligament**	– Development
		– Structure
		  – principal fibres
		  – Clinical considerations
			W5	1

6	**Alveolar bone**	Physical and chemical characteristics. – Histological concepts of bone,	W6	1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		including cell types (review). – Development of bone in general and alveolar bone in particular. – Histological features of alveolar bone. – Clinical considerations. – Age changes.		
7	**Oral mucosa 1/2**	– Definition and classification. – Development of oral mucosa. – Description of keratinized and non-keratinized oral mucosa. – Lining mucosa.	W7	1
8	**Midterm Exam**	– MCQs and essay	W8	1
9	**Oral mucosa 2/2**	– Specialized mucosa. – Masticatory mucosa. – Functions of oral mucosa. – Age changes. – Clinical considerations.	W9	1
10	**Salivary glands**	– Definition and classification. – Extrinsic (major) salivary glands. – Intrinsic (minor) salivary glands. – Age changes. – Clinical considerations. – Saliva (composition and function).	W10	1
11	**The Dentogingival Junction**	– Introduction – Development of the junctional Epithelium of the gingiva – Development cervix of the tooth – Morphology of the dentogingival junction	W11	1
12	**Maxillary Sinus**	– Introduction – Development	W12	1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		– structure – Relations – Maxillary ostium (opening orifice) – Related structures – Vascular supply – Nerve supply – Histology of maxillary sinus – Sinus epithelium – Functions of the maxillary sinus – Clinical considerations		
13	**TMJ**	– Gross Anatomy – Development of the Joint – Histology – Bony structures – Articular fibrous covering – Articular disk – Synovial membrane – Clinical Considerations	W13	1
14	**Mouth Aging**	– The general concept of ageing. – Effects of ageing in relation to the mouth. – Oral function	W14	1
15	**Revision**	General revision	W15	1
16	**Final Theoretical Exam**	MCQs and essay	W16	1
Number of Weeks /and Units Per Semester			**16**	**16**

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
1	**Enamel 2/2**	– Enamel structure. – Incremental lines of Retzius. – Neonatal lines.	W1	1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		– Surface structures. – The enamel junctions: DEJ and CEJ. – Clinical consideration of Enamel. – Dental caries.		
2	**Dentin**	– Physical characteristics. – Chemical properties. – Structure. – Development. – Clinical considerations.	W2	1
3	**Pulp**	– Anatomy. – Structural Features. – Functions. – Regressive Changes (Aging). – Development. – Clinical considerations.	W3	1
4	**Cementum**	– Cementogenesis. – Physical and chemical characteristics. – Classification of cementum. – Histological features of cementum. – Sharpey's fibres. – Clinical considerations.	W4	1
5	**Periodontal Ligament**	– Development – Structure – principal fibres – Clinical considerations	W5	1
6	**Alveolar bone**	– Physical and chemical characteristics. – Histological concepts of bone, including cell types (review). – Development of bone in general and alveolar bone in particular. – Histological features of alveolar	W6	1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		bone. – Clinical considerations. – Age changes.		
7	**Oral mucosa 1/2**	– Definition and classification. – Development of oral mucosa. – Description of keratinized and non-keratinized oral mucosa. – Lining mucosa.	W7	1
8	**Midterm Exam**	– MCQs and essay	W8	1
9	**Oral mucosa 2/2**	– Specialized mucosa. – Masticatory mucosa. – Functions of oral mucosa. – Age changes. – Clinical considerations.	W9	1
10	**Salivary glands**	– Definition and classification. – Extrinsic (major) salivary glands. – Intrinsic (minor) salivary glands. – Age changes. – Clinical considerations. – Saliva (composition and function).	W10	1
11	**The Dentogingival Junction**	– Introduction – Development of the junctional Epithelium of the gingiva – Development cervix of the tooth – Morphology of the dentogingival junction	W11	1
12	**Maxillary Sinus**	– Introduction – Development – structure – Relations – Maxillary ostium (opening orifice) – Related structures – Vascular supply – Nerve supply	W12	1

No.	Units/Topics List	Sub Topics List	Number of Weeks	Contact Hours
		– Histology of maxillary sinus – Sinus epithelium – Functions of the maxillary sinus – Clinical considerations		
13	**TMJ**	– Gross Anatomy – Development of the Joint – Histology – Bony structures – Articular fibrous covering – Articular disk – Synovial membrane – Clinical Considerations	W13	1
14	**Mouth Aging**	– The general concept of ageing. – Effects of ageing in relation to the mouth. – Oral function	W14	1
15	**Revision**	– General revision	W15	1
16	**Final Theoretical Exam**	– MCQs and essay	W16	1
Number of Weeks /and Units Per Semester			**16**	**16**

B. Case Studies and Practical Aspect:

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	**Enamel: Enamel rods and Hunter-Schreger bands**	W2	2
2	**Dentin: Dentinal tubules**	W3	2
3	**Pulp: Pulp tissues and its cellular components.**	W4	2
4	**Cementum: Sharpey's fibers.**	W5	2
5	**Periodontal Ligament (PDL): its fiber orientation.**	W6	2
6	**Mid-term Exam**	W7	2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
7	Alveolar Bone: Decalcified sections of alveolar bone.	W8	2
8	Oral Mucosa: keratinized and non-keratinized epithelium.	W9	2
9	Salivary Glands: Major and minor salivary glands: Parotid, submandibular, and sublingual glands.	W10	2
10	The Dentogingival Junction: The junctional epithelium.	W11	2
11	Maxillary Sinus: Clinical cases of maxillary sinus involvement in dental infections.	W12	2
12	Temporomandibular Joint (TMJ): TMJ's articular disc.	W13	2
13	Mouth Aging: Compare young vs. aged oral tissues under the microscope.	W14	2
14	Final Exam (practical)	W15	2
Number of Weeks /and Units Per Semester		15	30

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
1	Enamel: Enamel rods and Hunter-Schreger bands	W2	2
2	Dentin: Dentinal tubules	W3	2
3	Pulp: Pulp tissues and its cellular components.	W4	2
4	Cementum: Sharpey's fibers.	W5	2
5	Periodontal Ligament (PDL): its fiber orientation.	W6	2
6	Mid-term Exam	W7	2
7	Alveolar Bone: Decalcified sections of alveolar bone.	W8	2
8	Oral Mucosa: keratinized and non-keratinized epithelium.	W9	2
9	Salivary Glands: Major and minor salivary glands: Parotid, submandibular, and sublingual glands.	W10	2
10	The Dentogingival Junction: The junctional epithelium.	W11	2

No.	Tasks/ Experiments	Number of Weeks	Contact Hours
11	**Maxillary Sinus: Clinical cases of maxillary sinus involvement in dental infections.**	W12	2
12	**Temporomandibular Joint (TMJ): TMJ's articular disc.**	W13	2
13	**Mouth Aging: Compare young vs. aged oral tissues under the microscope.**	W14	2
14	**Final Exam (practical)**	W15	2
Number of Weeks /and Units Per Semester		**15**	**30**

C. Tutorial Aspect:

No.	Tutorial	Number of Weeks	Contact Hours
1	None		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
Number of Weeks /and Units Per Semester			

VI. Teaching Strategies of the Course:

Error! Reference source not found.

VII. Assessment Methods of the Course:

Error! Reference source not found.

VIII. Assignments:

No.	Assignments	Week Due	Mark
1	**Assignment 1:** Preparing **a data show about disorders related to enamel, dentin, pulp, and cementum.**	W4	2
2	**Assignment 2:** Writing **a report covering the following topics: Identification and characterization of PDL stem cells, their potential for regenerative therapies, and current research trends and future directions in PDL stem cell therapy.**	W7	2
3	**Assignment 3:** Design **a table that compares between the different types of oral mucosa using histological slides, structural differences and functional significance.**	W7	2
4	**Assignment 4: Conduct a literature review and prepare a presentation that includes: histological changes observed in taste buds with age, the relation between taste perception and changes in oral mucosa and clinical implications of altered taste perception in older adults.**	W10	2
5	**Assignment 5: Preparing hand-written notes of the lectures taken during the term.**	W13	2
Total			**10**

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

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	**Tasks and Assignments**	during the term	10	10%
2	**Quiz / Oral Examination**	W12	10	10%
3	**Mid-Term Theoretical Exam**	W8	20	20%

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
4	Mid-Term Practical Exam	W7	5	5%
5	Final Practical Exam including Project Presentation & Evaluation	W 15	15	15%
6	Final Theoretical Exam	W16	40	40%
Total			100	100%

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1	Tasks and Assignments	during the term	10	10%
2	Quiz / Oral Examination	W12	10	10%
3	Mid-Term Theoretical Exam	W8	20	20%
4	Mid-Term Practical Exam	W7	5	5%
5	Final Practical Exam including Project Presentation & Evaluation	W 15	15	15%
6	Final Theoretical Exam	W16	40	40%
Total			100	100%

X. Learning Resources:

- *Written in the following order: Author, Year of publication, Title, Edition, Place of publication, Publisher.*

1- Required Textbook(s) (maximum two):

Bhaskar S N. (2011) Orban's Oral Histology and Embryology. 11th ed. Reed Elsevier India Private Limited. India.

Chiego D J. (2019) Essentials of oral histology and embryology. 5th ed. Elsevier. USA.

2- Essential References:

BenTajeh S M S. (2018) Oral Histology and Embryology. 14th ed. FEMSALE. Yemen.

Nancy A. (2025) Ten Cate's Oral Histology: Development, Structure, and Function. 10th ed. Elsevier. USA.

3- Electronic Materials and Web Sites etc.:

Websites:

1- https://www.anatomicum.com/en/?articleid=58
2- https://histologyguide.com/
3- https://histology.medicine.umich.edu/full-slide-list

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