Faculty of Oral & Dental Medicine

Oral Histology

Information :

Course Code :	DHST 221	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours

Department : Faculty of Oral & Dental Medicine

Instructor Information :

Title	Name	Office hours
Professor	AMANY AHMED RABEE MOHAMED OSMAN	
Professor	Mona Fathy Abdel Maksoud Eldeeb	
Associate Professor	RANEEM FAROUK MOHAMED ADEEB OBEID	
Lecturer	Nehad Mostafa Abd El Monsif Mostafa	

Area Of Study :

ÅTo keep pace with recent advances in oral biology.
ÅTo provide an expanded knowledge about histology of dental tissues.
ÅTo serve as a basis for understanding the clinical courses such as oral pathology, conservative dentistry and oral medicine.
ÅTo enable the development and application of appropriate professional attitude as well as communication and practical skills of the students.

Description :

1. Tooth development
2. Enamel
3. Dentin
4. Cementum
5. Pulp
6. Shedding
7. Eruption

Course outcomes :

a.Knowledge and Understanding: :	
1 -	State the histological age changes and clinical consideration of dental tissues.
2 -	Identify the structure and the function of different dental hard tissues.
3 -	List different phases of eruption and shedding.
4 -	Distinguish the different dental hard tissues.
b.Intellectual Skills: :	
1 -	Conclude the clinical significance associated with certain dental structures.
2 -	Interpret different phases of eruption and shedding.
3 -	Explain any abnormalities that might affect the shedding of deciduous teeth.
4 -	Determine the different dental hard tissues.

c.Professional and Practical Skills: :	
1 -	Draw both hard and soft oral tissues.
2 -	Demonstrate the technical steps for preparation of tooth ground and decalcified microscopic sections as well as the main histological and histochemical stains.
3 -	Draw the histological structure of dental tissues
4 -	Discover the different dental tissues as well as phases of eruption and shedding through power point data show.
d.General and Transferable Skills: :	
1 -	Demonstrate appropriate professional attitude and behavior in different situations
2 -	Communicate effectively with colleagues, staff members and helping personnel.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Initiation of dental lamina, Bud & cap Bud stage (drawing and data show)	4	2	2
Cap stage (drawing and data show) Bell & appositional stages	4	2	2
Root development and clinical considerations. Bell stage (drawing &data show)	4	2	2
Enamel structure Physical properties Chemical properties Enamel rods Incremental lines Dentino-enamel junction Enamel lamellae Enamel spindle and tuft Surface structures Clinical aspects Appositional stage (drawing &data show)	4	2	2
Amelogenesis Enamel matrix formation Maturation of enamel Life history of ameloblasts Age changes of enamelRoot development (drawing and data show)	4	2	2
Drawing Enamel structure (longitudinal and transverse sections) Dentinogenesis Life history of odontoblasts Matrix formation and mineralization	4	2	2
Dentin structure Physical properties Chemical properties Structure of dentinal tubules Incremental lines of dentin Interglobular dentin Tome's granular layer Types of dentin Age changes of dentin. Data show Enamel structure	4	2	2

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Pulp Morphology Mechanism of accessory canals formation Zones of the pulp Pulp structure Functions of the pulp Age changes of the pulp Clinical considerations Drawing Dentin structure (longitudinal and transverse sections)	4	2	2
Cementum Physical properties Chemical properties Structure of cellular and acellular cementum Cement-enamel junction Cement-dentinal junction Types of cementum Functions of cementum Cementogenesis Age changes of cementum Clinical considerations Data show Dentin structure	4	2	2
Eruption Types of eruption Eruption of deciduous teeth Pre-eruptive phase, eruptive phase and post eruptive phase (in each phase; pattern, types of movements and histological changes) Eruption of permanent teeth Pre-eruptive phase, eruptive phase and post eruptive phase (in each phase; pattern, types of movements and histological changes) Pulp(drawing and data show)	4	2	2
Theories of tooth eruption Root formation theory Bone remodeling theory Vascular pressure theory Dental follicle theory Periodontal ligament traction theory Molecular determinants of tooth eruption Cementum(drawing and data show)	4	2	2
Shedding Definition Pattern of shedding Factors determining the pattern and rate of deciduous teeth shedding Histology of shedding Clinical considerations Data show Eruption& Shedding	4	2	2

Teaching And Learning Methodologies :

Lectures/ Online lectures.

Practical and Small group sessions: a. Each practical session's preceded by slide tutorial demonstration, description and drawing of oral tissues and class discussions. b. Demonstration for tissue identification using light microscope in small groups

Student draw in their practical books under supervision of the responsible staff members and helping personnel in small subgroups

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final practical Examination	15.00		
Final term Examination	25.00		
Oral Examination	10.00		
Semester practical work	25.00		
Semester written Examination	25.00		

Course Notes :

ÅAll lectures are available for students from the faculty as a soft copy.
ÅTextbooks : Mary Bath-Balogh,Margaret J. Fehrenbach, Dental Embryology Histology and anatomy 4th Edition ,2015
ÅWebsites related to the study subject
ÅComputer presentations used during teaching
ÅHandouts for certain topics.

Recommended books :

6.2
Textbooks : Mary Bath-Balogh,Margaret J. Fehrenbach, Dental Embryology Histology and anatomy 4th Edition ,2015
6.3
Textbook of Oral Development & Histology; James Avery.
Tencate's Oral Histology; Antonio Nanci.

Web Sites :

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Science Direct