

Course Title	Biology and Pathology of Hard Dental Tissues				
Course Code	DES220				
Course Type	Compulsory				
Level	Bachelor of Dentistry				
Year / Semester	2 nd year / 3 rd semester				
Teacher's Name	Konstantinos Kodonas				
ECTS	3	Lectures / week	2 hours / 13 weeks + exam week	Laboratories / week	2 hours / 13 weeks
Course Purpose and Objectives	<p>The daily practice of dentistry needs to know the bases of the pathology of dental tissues.</p> <p>The understanding of developmental biology of dental tissues pretends that the student begins to familiarize with the developmental anomalies of teeth. It will be the basis on which the student will realize the clinical practices of the post-eruption hard tissue physiological changes and pathological conditions.</p> <p>The present course provides students with the theoretical, and clinical background in order to understand the morphodifferentiation events during tooth development, gather and analyze data, establish diagnosis and formulate the treatment plan in developmental and post-eruption tooth-related disorders</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Describe the embryologic origin and molecular mechanisms underlying tooth initiation and dental tissue differentiation. • Describe the acquired morphology and biochemistry of enamel, dentin, and cementum. • Recognize the classification of dental anomalies. • Describe and discuss the aetiology, the clinical view, radiographic image, differential diagnosis, and the clinical importance of number, size, shape, structure, and eruption anomalies of the teeth. • Explain the etiopathology of various genetic syndromes and tooth dysplasias. • Describe the classification of tooth discolorations. • Explain the aetiology and pathogenesis of resorption of hard dental tissues. 				
Prerequisites	None		Co-requisites	None	
Course Content	<p>In this regard the students will be familiar with:</p> <ul style="list-style-type: none"> • The developmental biology of teeth: Initiation of odontogenesis. • The developmental biology of teeth: crown morphogenesis - dentinogenesis. • The developmental biology of teeth: amelogenesis -root formation. • The developmental biology of teeth: chronology of dental development. • The description of the Histogenesis and differentiation of hard dental tissues in primary and permanent teeth. • The description of the Developmental alterations of teeth in number. 				

	<ul style="list-style-type: none"> • The description of the Developmental alterations of teeth in size and shape. • Explain the Developmental alterations of teeth and the structure of dental tissues. • Explain the Environmental effects on tooth structure development. • Describe the Post-developmental loss of tooth structure. • Explain the Environmental discoloration of teeth. 		
Teaching Methodology	Face-to-face, Lectures, Quizzes, Case Presentations, Literature review sessions.		
Bibliography	Sivapathasundharam B. Shafer's Textbook of Oral Pathology. New Delhi: Elsevier India, 2016.		
Assessment	Final Examination	60%	
	Laboratory/Clinical Work/ Oral presentations	30%	
	Participation and attendance	10%	
	Total	100%	
Language	English		