

Course Title	Operative Dentistry II				
Course Code	DES300				
Course Type	Compulsory				
Level	Bachelor of Dentistry				
Year / Semester	3 rd year / 5 th semester				
Teacher's Name	TBA				
ECTS	5	Lectures / week	2hrs / 13 weeks + exam week	Laboratories / week	3hrs / 13 weeks
Course Purpose and Objectives	<p>This course is a continuance of the Operative Dentistry I course. It includes a lecture and laboratory component. The theoretical component is designed to give the students foundation knowledge of the principles, terminology, instruments, materials and techniques utilized in the practice of Operative Dentistry. The principles of tooth preparations and the basics of single tooth restorations in direct restorative materials such as amalgam and composite resin, to restore pathologically damaged tooth structure due to dental caries, fracture or trauma, will be presented.</p> <p>All aspects of Operative Dentistry interventions will be applied on the basis of a clear understanding of the aetiology and preventive aspects of caries and caries management by risk assessment.</p> <p>In the practical component, the students will have demonstrations and perform a series of exercises in typodonts, utilizing current instrumentation and materials. They will perform different tooth preparations on artificial teeth, appropriate for the restorative material to be used, with the goal of the best possible longevity and the maximum possible tooth structure conservation. They will also acquire knowledge on the appropriate restorative material manipulation and placement techniques.</p> <p>Students will be also working in the Haptic Simulation Laboratory to develop specific psychomotor and cognitive skills through the use of virtual reality-based training that will enhance and augment their training in the Operative Dentistry course. Technical skills are developed through learning preparations with a high-speed handpiece, low speed handpiece, and dental hand instruments in a virtual reality, advanced simulation environment.</p>				

	This course prepares the students for further preclinical and simulation training in phantom heads with the ultimate goal of performing Operative Dentistry procedures in a supervised clinical setting.		
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • List and explain the principles of cavity preparation. • Develop basic manual dexterity skills in different cavity preparations. • Appropriately manipulate and place, in artificial tooth cavities, restorative materials such as amalgam, composite resin and glass ionomer cements in order to properly restore anatomical form, function and aesthetics. • Describe and properly use different types of matrix systems. • Articulate the use of materials for pulpal protection. Describe the use of various bases and liners. 		
Prerequisites	Dental Morphology Operative Dentistry I	Co-requisites	None
Course Content	<p>In that regard, students will familiarize themselves with the following Modules:</p> <ul style="list-style-type: none"> • Class I, II, III, IV and V tooth preparation for composite resin restorative material. • Class VI tooth preparation for different restorative materials. • Adhesion principles. • Etching and bonding, bonding agent selection. • Composite resin placement techniques. • Composite resin restorative material. • Pulp protection. Bases and liners. • Finishing and polishing amalgam and composite resin restorations. 		
Teaching Methodology	Face-to-face		
Bibliography	Sturdevant's Art and Science of Operative Dentistry; Andre V. Ritter, Lee W. Boushell, Ricardo Walter; 7 th Edition;2018;Elsevier Inc. St. Louis, Missouri, 63043, USA. ISBN: 978-0-323-47833-5.		

	<p>Craig's Restorative Dental Materials; Ronald L. Sakaguchi, Jack L. Ferracane, John M. Powers; 14th Edition; 2018; Elsevier Inc. St. Louis, Missouri, 63043, USA. ISBN: 978-0-323-47821-2.</p> <p>Summitt's Fundamentals of Operative Dentistry: A Contemporary Approach; Thomas J Hilton, Jack L. Ferracane, James Broome; 4th Edition; 2013; Quintessence Publishing Co Inc, Hanover Park, IL, 60133, USA. ISBN: 978-086715-528-0.</p>								
Assessment	<table border="1" data-bbox="443 622 1198 786"> <tr> <td>Final Examination</td> <td>60%</td> </tr> <tr> <td>Lab Report / Oral presentations</td> <td>30%</td> </tr> <tr> <td>Participation and attendance</td> <td>10%</td> </tr> <tr> <td>Total</td> <td>100%</td> </tr> </table>	Final Examination	60%	Lab Report / Oral presentations	30%	Participation and attendance	10%	Total	100%
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