

Course Title	Pharmacology				
Course Code	DES210				
Course Type	Compulsory				
Level	Bachelor of Dentistry				
Year / Semester	2 <sup>nd</sup> year / 3 <sup>rd</sup> semester				
Teacher's Name	TBA				
ECTS	4	Lectures / week	4 hrs / 13 weeks + exam week	Laboratories / week	N/A
Course Purpose and Objectives	<p>The theoretical training of the course is intended to familiarize the students with the basic pharmacological concepts and provide the basic pharmacology of drugs selected from a list of essential drugs, representative for each type of pharmacotherapy. The objective of this course is to enhance the students' knowledge regarding the basic pharmacological agents needed to treat disease. Also to provide the students with the sources, the criteria and the mentality to learn how to learn and to seek for appropriate information in order to apply evidence based drug selection for their patients during their dental praxis.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Describe basic definitions used in Pharmacology, such as active ingredient, excipient, natural, synthetic and biological drugs, drug formulations, generic drugs, proprietary names etc.</li> <li>• Describe basic definitions and parameters of Pharmacokinetics and their use in dose readjustment.</li> <li>• Describe basic definitions and parameters of Pharmacodynamics</li> <li>• Understand the stages of preclinical and clinical drug development and the importance of pharmacovigilance.</li> <li>• Recognize in which category the various drugs (from a basic list of drugs) belong to, as well as their mechanism of action, pharmacokinetics, therapeutic uses, side effects and contra-indications.</li> <li>• Recall the principles of drug prescription and discuss the differences in selecting the appropriate medication for special groups of patients (children, elderly, pregnant, etc)</li> </ul>				

	<ul style="list-style-type: none"> <li>Recognize the possible interactions between systemic medications and localized dental drug prescription.</li> <li>Evaluate evidence based information with respect to pharmacotherapy.</li> </ul>		
Prerequisites	None	Co-requisites	None
Course Content	<p>In this regard, students will familiarize themselves with the following chapters concerning the Course of Pharmacology:</p> <ul style="list-style-type: none"> <li>Definitions;</li> <li>Pharmacokinetics (absorption, distribution, metabolism, secretion)</li> <li>Pharmacodynamics, the concept of receptor, dose-response curves</li> <li>Methods and measurements in pharmacology; Preclinical and clinical drug development</li> <li>Drugs acting in the Autonomic Nervous System; Drugs acting on the neuromuscular junction</li> <li>Pain management (centrally acting and non-steroidal anti-inflammatory drugs); Local anaesthetics; General anaesthetics</li> <li>Drugs acting in the central nervous system (sedatives, anxiolytics, antidepressant, antiepileptic, hypnotics, antipsychotic, neurodegenerative diseases)</li> <li>Drugs for the cardiovascular and urinary systems</li> <li>Drugs for the gastrointestinal system;</li> <li>Drugs for the respiratory diseases</li> <li>Anticoagulant, Thrombolytic, Antiplatelet, Fibrinolytic drugs</li> <li>Lipid lowering drugs</li> <li>Drugs and the endocrine system; Biphosphonates</li> <li>Immunosuppressant drugs</li> <li>Antibiotics, antifungal, antiviral, antiparasitic drugs; Antiseptics and disinfectants</li> <li>Chemotherapeutics; Biological agents;</li> <li>Pharmacogenomics</li> <li>Drug prescription; Life style drugs; Misuse and abuse of drugs; Drug dependence; Antidotes to drug overdose/poisoning</li> </ul>		
Teaching Methodology	Lectures face-to-face. Individual weekly assessment via multiple-choice questions.		
Bibliography	<p>- Dowd FJ, Johnson B, Mariotti A. Pharmacology and Therapeutics for Dentistry. St. Louis: Elsevier, 2017.</p> <p>Additional Reading</p> <p>- Neal MJ. Medical Pharmacology at a Glance. Oxford: Wiley-Blackwell, 2015.</p> <p>- Shanbhag TV. Pharmacology for Dental Students. New Delhi: Elsevier, 2010.</p>		

	<p>- Rang &amp; Dale's Pharmacology, 8th Edition</p> <p>- Bertram G. Katzung. Basic &amp; Clinical Pharmacology 14th edition 2018</p>								
Assessment	<table border="1"> <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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