

Course Title	Teaching Biology				
Course Code	BIO308				
Course Type	Elective				
Level	Bachelor (1st Cycle)				
Year / Semester	4 <sup>th</sup> Year / 7 <sup>th</sup> Semester				
Teacher's Name	TBA				
ECTS	5	Lectures / week	3 Hours	Laboratories / week	None
Course Purpose and Objectives	The objective of the course is the introduction of students to the theoretical and practical approaches of Teaching subjects related to Biomedical Sciences.				
Learning Outcomes	<p>Upon successful completion of the course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Explain the main objective in Teaching Biology</li> <li>• Critically discuss both theoretical and practical concepts of Teaching Biology and its methodology.</li> <li>• Organize a lecture diagram defining the main learning objectives, the means used and the biological activities that need to be undertaken as well as the means of evaluation.</li> <li>• Compare, explain and discuss basic characteristics of modern trends in Teaching Biology such as problem solving, inquiry-based learning, team-based learning, utilization of digital technology in teaching, development of metacognition, and situated learning, and demonstrate their application in class.</li> </ul> <p>Explain the theoretical background and demonstrate the practical application of differential teaching in classes of mixed abilities.</p>				
Prerequisites	None	Co-requisites	None		
Course Content	<p><b>Theory:</b> <b>Description:</b></p> <ul style="list-style-type: none"> <li>• Introduction. Teaching as a separate field of educational sciences. Theory of education.</li> <li>• Historical perspective of biomedical sciences. The meaning and objective of teaching and teaching methodology of Biology in particular. Historical perspective of the field of teaching methodology of Biology.</li> <li>• Theories of Learning. Modern models of Teaching Biology. Theory of Piaget, social development theory (Vygotsky), theory of interactionism (Bruner, Dienes). The development of Cognitive Science.</li> </ul>				

	<ul style="list-style-type: none"> <li>• Teaching Biology aiming at the development of the reasoning ability and critical thinking: methodologies and examples.</li> <li>• Factors that affect learning of Biology. Internal vs external motivation.</li> <li>• The curriculum, sectors of knowledge. Objectives of teaching and learning in the curriculum of the Biomedical Program. Teaching content, activities and feedback means.</li> <li>• The role of educator and his/her relationship with children in a modern class of biological sciences.</li> <li>• The structure of social interaction in classroom. Team-based learning.</li> <li>• Diversification of biology teaching in mixed ability classes.</li> <li>• Daily Biology plan: progress, development and order of activities.</li> <li>• Selecting educational resources and materials. Teaching skills. Class organization.</li> <li>• Teaching Biology in Secondary Education.</li> <li>• Evaluation</li> </ul>										
Teaching Methodology	Face- to- face										
Bibliography	<p>Sibley J., and Ostafichuk P. Getting started with team-based learning.</p> <p>Brown C.R. The effective teaching of Biology. The effective teacher series.</p> <p>Tomlinson, C.A. (2014) The differentiated classroom. Responding to the needs of all learners, 2<sup>nd</sup> edition.</p>										
Assessment	<table border="1"> <tr> <td>Mid – Term Examination</td> <td>30%</td> </tr> <tr> <td>Final Examination</td> <td>40%</td> </tr> <tr> <td>Assignments/Lab</td> <td>20%</td> </tr> <tr> <td>Class Participation</td> <td>10%</td> </tr> <tr> <td></td> <td>100%</td> </tr> </table>	Mid – Term Examination	30%	Final Examination	40%	Assignments/Lab	20%	Class Participation	10%		100%
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Language	English										