

Curriculum - Academic Year 2018-19
Characteristics of the Course Units

Name	<i>Spectroscopic Methods</i>
ECTS credits	3
Year / Semester	<i>1/2</i>
Specific learning outcomes	<p><i>On successful completion of this module students should be able to:</i></p> <p><i>1– have achieved a knowledges about the interactions of electromagnetic radiation and matter and their applications in spectroscopy.</i></p> <p><i>2– analyse and interpret spectroscopic data collected by UV - Visible Spectroscopy</i></p> <p><i>3– analyse and interpret spectroscopic data collected by Atomic absorption Spectroscopy</i></p> <p><i>4– analyse and interpret spectroscopic data collected by Infrared Spectroscopy</i></p> <p><i>5– analyse and interpret spectroscopic data collected by Mass Spectrometry</i></p> <p><i>6– analyse and interpret spectroscopic data collected by Nuclear Magnetic Resonance spectroscopy (NMR)</i></p>
Contents	<i>General aspects of spectroscopy; UV - Visible Spectroscopy; Atomic absorption Spectroscopy; Infrared Spectroscopy ; Mass Spectrometry; Nuclear Magnetic Resonance spectroscopy (NMR)</i>
Teaching and learning methods	
Teaching techniques	<i>Lectures, Practical classes,</i>
Assessment methods	<p><i>Written.</i></p> <p><i>A two mid-term written test and a final-term written test are foreseen.</i></p> <p><i>The first mid-term written test will be devoted to the assessment of the level of achievement of LOs 1, 2, and 3.</i></p> <p><i>The second mid-term written test will be devoted to the assessment of the level of achievement of LOs 4, 5, and 6.</i></p> <p><i>The final term written test will be devoted to the assessment of the level of achievement of LOs 2, 3, 4, 5, and 6.</i></p>
Assessment criteria	<p><i>In the first mid-term test students should demonstrate their ability students should be able to analyse and interpret spectroscopic data collected by UV - Visible Spectroscopy.</i></p> <p><i>In the second term test students will be analyse and interpret spectroscopic data collected by Infrared Spectroscopy, Mass Spectrometry, Nuclear Magnetic Resonance spectroscopy (NMR)</i></p> <p><i>In the final term Choose the suitable method for qualitative and quantitative analysis.</i></p>
Assessment metrics	<i>Attribution of a final grade</i>
Criteria of attribution of the final grade	<p><i>The grade goes from 1 (minimum) up to 20 (maximum). The minimum threshold to pass is 7. To pass the exam students should obtain the minimum evaluation in all the assessments.</i></p> <p><i>The final grade will be determined according to the following rules:</i></p> <ul style="list-style-type: none"> <i>- Mid-terms written test: 20%</i> <i>- Practical classes assessments: 30%</i> <i>- Final examination (including): 50%</i>
Preparatory course units	
Didactic material	<i>Douglas A. Skoog "Principles of Instrumental Analysis"</i>