

	Implementation schedule	Participation	Partner University	Lecturer	Learning outcomes
<b>DAY 1</b> Friday 09/05/25 10.00-13.00 (CET)	Extraction methods of plant extracts	Online	FredU	Despina Charalambous	The students will: <ul style="list-style-type: none"> <li>✓ learn to identify the different extraction methods</li> <li>✓ learn to choose the appropriate extraction method</li> </ul>
<b>Description</b>	Plant extracts are concentrated substances derived from various parts of plants, including leaves, stems, roots, flowers, and seeds. Several methods for extracting these compounds will be described. Each method has its own set of advantages and disadvantages. Finally, it will be concluded that the choice of extraction method depends on the type of plant material, the target compounds, the desired purity, and the intended application of the extract.				
<b>DAY 2</b> Tuesday 13/05/25 11:00-14:00 (CET)	Biochemical characterization of extracts	Online	Agricultural University of Athens	Georgia Moschopoulou	The students will: <ul style="list-style-type: none"> <li>✓ learn screening techniques of bioactivity</li> <li>✓ learn to analyse and interpretate the experimental data</li> </ul>
<b>Description</b>	For the biochemical characterization of extracts three different contents will be determined. For the total phenolic content determination will be applied the Folin-Ciocalteu assay, for flavonoid content determination will be used the aluminum chloride method, and the extracts' antioxidant activity will be evaluated through the FRAP assay. Finally, it will be performed result data analysis.				
<b>DAY 3</b> Wednesday 14/05/25 12:15-15:15 (CET)	Basic cell culture and procedures and In Vitro Cytotoxicity assessment	Online	Agricultural University of Athens	Sophie Mavrikou	The students will: <ul style="list-style-type: none"> <li>✓ learn the basic principles for in vitro cell culture</li> <li>✓ learn screening techniques of bioactivity (in vitro-methods).</li> <li>✓ learn to analyze and interpretate the experimental data</li> </ul>

<b>Description</b>	<p>Basic cell culture protocol will be demonstrated for the in vitro experiments on human cell lines in order to explore the cytocompatibility of the produced extracts and determine a safe concentration range for usage. The well-established MTT assay will be employed for in vitro cytotoxicity assessments, encompassing a broad range of extract concentrations and varied incubation durations. Finally, it will be performed result data analysis.</p>				
<p><b>DAY 4</b> <b>Thursday</b> <b>15/5/25</b> <b>10.00-13.00 (CET)</b></p>	<p>Antimicrobial activity of plant extracts</p>	<p>Online</p>	<p>FredU</p>	<p>Despina Charalambous</p>	<p>The students will:</p> <ul style="list-style-type: none"> <li>✓ learn the basic principles of antimicrobial activity</li> <li>✓ learn the methods of antimicrobial activity</li> <li>✓ learn to analyze and interpretate experimental data</li> </ul>
<b>Description</b>	<p>The antimicrobial activity in plant extracts will be assessed with several methods that can provide insights into their efficacy and potential applications in medicine. Appropriate methods such as Disc-diffusion assay, Minimum inhibitory and bactericidal concentration and time-kill assay will be described and utilized. Result data analysis will be performed for better understanding of the techniques.</p>				
<p><b>DAY 5</b> <b>Friday</b> <b>16/5/25</b> <b>13.15-16.15 (CET)</b></p>	<p>Research of antihypertensive compounds: Angiotensin I converting enzyme inhibition</p>	<p>Online</p>	<p>LRUniv</p>	<p>Stéphanie Bordenave</p>	<p>The students will:</p> <ul style="list-style-type: none"> <li>✓ Describe the blood pressure regulation system and the results of its dysfunction</li> <li>✓ Analyse and compare the methods used to find antihypertensive compounds</li> <li>✓ Recommend ways to analyse and discuss aquired data</li> </ul>
<b>Description</b>	<p>The Renin Angiotensin System is regulating the blood pressure through an enzymatic cascade. Inhibition of the angiotensin I converting enzyme is one key of this system. Students will first discover the blood pressure control and how to use it to discover compounds able to inhibit this enzyme. From SWOT analyses of existing methods, recommendation will be made.</p>				