	Implementation schedule	Title of the lecture	Participation	Partner University	Lecturer	Learning outcomes
Lecture 1	**Friday** **20/02/2026** **10.00-1300 CET**	Extraction methods of plant extracts	Online	FredU	Despina Charalambous	The students will ✓ learn to identify the different extraction methods ✓ learn to choose the appropriate extraction method
Description	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.					
Lecture 2	**Tuesday** **24/02/2026** **10.00-1300 CET**	Biochemical characterization of extracts	Online	AUA	Georgia Moschopoulou	The students will : ✓ learn screening techniques of bioactivity. ✓ learn to analyse and interpretate the experimental data
Description	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.					
Lecture 3	**Wednesday** **25/02/2026** **10.00-1300 CET**	Influence of accelerated solvent extraction conditions on phenolic and pigment concentrations in wild nettle (*Urtica dioica* L.) leaves and stalks	Online	UNIZD	Zoran Zorić	The students will: ✓ learn about different groups biologically active compounds (BAC in wild nettle ✓ learn the principle of accelerated solvent extraction (ASE); ✓ learn about chromatography techniques in identification and quantification of BAC's (HPLC-DAD; LC-MS/MS)

Description	Wild nettle (*Urtica dioica* L.) contains a wide range of biologically active compounds (BACs). In this course students will explore the different groups of these compounds, learn how these compounds can be efficiently analysed using accelerated solvent extraction (ASE), In this lecture the identification and quantification of nettle BACs using chromatographic techniques as HPLC-DAD and LC-MS/MS will be explored.					
Lecture 4	**Thursday** **26/02/2026** **10.00-1300 CET**	Basic cell culture and procedures and In Vitro Cytotoxicity assessment	Online	AUA	Sophie Mavrikou	The students will : ✓ learn the basic principles for in vitro cell culture ✓ learn screening techniques of bioactivity (in vitro-methods). ✓ learn to analyze and interpret the experimental data
Description	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.					
Lecture 5	**Friday** **27/02/2026** **10.00-1300 CET**	Research of antihypertensive compounds: Angiotensin I converting enzyme inhibition	Online	LRUniv	Stéphanie Bordenave	The students will: ✓ Describe the blood pressure regulation system and the results of its dysfunction ✓ Analyse and compare the methods used to find antihypertensive compounds ✓ Recommend ways to analyse and discuss aquired data
Description	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.					