

<b>Study Programme:</b> Bachelor Academic Studies in Biochemistry		
<b>Course Unit Title:</b> Aromatherapy		
<b>Course Unit Code:</b> IB-609		
<b>Name of Lecturer(s):</b> Associate Professor Marija Lesjak		
<b>Type and Level of Studies:</b> Bachelor of Science Degree		
<b>Course Status (compulsory/elective):</b> Elective		
<b>Semester (winter/summer):</b> Winter		
<b>Language of instruction:</b> English		
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face		
<b>Number of ECTS Allocated:</b> 6		
<b>Prerequisites:</b> None		
<b>Course Aims:</b> (1) To provide students with basic knowledge of aromatherapy and its position in modern phytotherapy. (2) to introduce students with aromatic plants as natural sources of essential oils, (3) To introduce students with latest results of clinical and pharmacological studies on essential oils and aromatherapy in modern medicine, (4) to provide students with latest achievements in application of essential oils in biotechnology, (5) developing students practical skills to apply laboratory techniques for isolation and chemical analysis of essential oils		
<b>Learning Outcomes:</b> After successful completion of this course, the student is able to: (1) explain the term and place of aromatherapy in modern phytotherapy on the basis of scientifically based statements, (2) to describe chemical composition and biogenetic origin of essential oils, (3) to list and describe most important aromatic plants and drugs, which contained essential oils (4) to develop skills for quantitative and qualitative analysis of essential oil and evaluation of the quality of aromatic drugs.		
<b>Syllabus:</b>		
<i>Theory</i>		
Meaning of aromatherapy as special area in phytomedicine and phytotherapy. Aromatherapy throughout history. Essential oil: chemical composition, biogenetic origin and ecological significance. Methods of isolation and extraction of essential oils. Aromatic plants: classification according to pharmacological activity. Application of essential oil in industry and biotechnology. Biological and pharmacological activity of essential oils. Side effects and phototoxicity of essential oils. Aromatherapy in rational phytomedicine. Scientifically based data about the efficacy of aromatherapy in pain medication, healing of dementia and other neurodegenerative illness, in the prevention and therapy of infective diseases, cancer etc. Current legislation in aromatherapy.		
<i>Practice</i>		
Techniques for isolation of essential oils; determination of the physicochemical parameters of some commercial essential oils in accordance to Pharmacopeia. Determination of the content of essential oils in various aromatic plants. Evaluation of qualitative composition of essential oils by chromatographic techniques; GC-MS analysis of essential oils.		
<b>Required Reading:</b>		
<ol style="list-style-type: none"> <li>1. Bagetta G., Cosentini M., Sakurada (Ed.) Aromatherapy: Basic Mechanisms and Evidence-Based Clinical Use. CRC Press, 2016</li> <li>2. Buckle, J. Clinical Aromatherapy. Essential Oils in Healthcare, 3rd Ed. Elsevier, London, UK, 2015.</li> <li>3. Lesjak, M., lecture material</li> </ol>		
<b>Weekly Contact Hours:</b> 5 (75)	<b>Lectures:</b> 3 (45)	<b>Practical work:</b> 2 (30)

**Teaching Methods:** Lectures, laboratory work, desk study projects, seminar(s)

**Knowledge Assessment (maximum of 100 points):** 100

<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	5	written exam	60
Practical work	25	oral exam	
Preliminary exam(s)	/	.....	
Seminar(s)	20		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.