

<b>Study Programme:</b> BSc in Biology
<b>Course Unit Title:</b> Plant Systematics with basic phylogeny
<b>Course Unit Code:</b> OB027
<b>Name of Lecturer(s):</b> Associate Professor Goran Anačkov
<b>Type and Level of Studies:</b> Bachelor Academic Degree
<b>Course Status (compulsory/elective):</b> Compulsory
<b>Semester (winter/summer):</b> Summer
<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> 8
<b>Prerequisites:</b> Required prepared personal herbarium collection, during Field work 1 and 2, according to standards.
<b>Course Aims:</b> Introduction to basic systematic groups of higher plants, their morphology, evolution and phylogeny.
<b>Learning Outcomes:</b> Obtaining basic knowledge of plant systematics. The basis for other botanical courses. General knowledge of the origin, kinship, diversity and characters of some vascular plant groups.
<b>Syllabus:</b> <i>Theory</i> Systematics as science, the basic concepts and research methods. Taxonomy and systematics, taxonomic categories, binary nomenclature, subordination of systematic units. The history of the Earth and plant life. The main evolutionary directions of selected vascular plants and phylogenetic concepts. Adaptive radiation, ancestral lines and outcome groups. The first land plants: Rhyniophyta, Zosterophylophyta, Bryophyta, Psilotophyta, Lycopodiophyta, Equisetophyta, Polypodiophyta; organization, reproduction and evolutionary significance. Occurrence of seeds. Plants with seeds. Gymnosperms, characteristics and distribution. Angiosperms, characteristics and basic groups. The characteristics of main groups in monocotyledonous and dicotyledonous plants. <i>Practice</i> Taxonomy as a fundamental basis of Systematics, determination of plants, the basic concept and rules. External morphology and breeding systems of selected representatives of the systematic groups: thalloid and true mosses, isosporic and heterosporic lycopods, ferns, horsetails, gymnosperms and angiosperms.
<b>Required Reading:</b> 1. Tatić, B., Blečić, V. (1996): Sitematika i filogenija kormofita. Zavod za udžbenike i nastavna sredstva, Beograd. (in Serbian) 2. Mägdefrau, K., Ehrendorfer, F. (1988): Botanika, sistematika, evolucija i geobotanika. Školska knjiga, Zagreb. (in Serbian) 3. Takhtajan, A. (2009): Flowering Plants, 2nd ed. Springer Science+Business Media, Berlin. 4. Simpson, M. (2006): Plant Systematics. Elsevier Academic Press, Amsterdam. 5. Judd, W., Campbell, C., Kellogg, E., Stevens, P., Donoghue, M. (2008): Plant systematics: a phylogenetic approach, 3rd ed. Sinauer Associates, Inc., Sunderland. 6. Nikolić, T. (2013): Sistematska botanika – Raznolikost i evolucija biljnog sveta. Alfa d.d., Zagreb. (in Croatian)

<b>Weekly Contact Hours:</b> 8	<b>Lectures:</b> 4	<b>Practical work:</b> 4	
<b>Teaching Methods:</b> Theoretical lectures, laboratory exercises.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation		written exam	30
Practical work		oral exam	40
Preliminary exam(s)	30	.....	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			