

Study Programme : BSc in Ecology			
Degree level: Bachelor degree			
Course Title: Plant Morphology			
Professor: dr Lana Zorić			
Required/Elective Course: Required Course			
Number of ECTS: 7			
Prerequisites: -			
Course Objective: Getting knowledge about structural-functional characteristics of groups of tissues, morpho-anatomical structure of vegetative, reproductive and metamorphosed organs, as well as about plant reproduction.			
Course Outcome: After finishing this course students should know: structure and function of plant organs, structural-functional coordination of organs and organism in a whole, plant structure and relationship with environmental conditions, plant structure and relationship with systematic position, types of plant reproduction and life cycles			
Course Content:			
<i>Theoretical part</i> – Morphological levels of plant organization. Embryo. Histology-tissue classification. Organography. Morphology and anatomy of vegetative organs (root, stem, leaf). Metamorphoses of plant organs. Types of plant reproduction: asexual and sexual, alternation of generations. Life cycles of mosses and ferns. Life cycles of seed plants. Morphology and anatomy of reproductive organs of flowering plants (flower, inflorescence, seed, fruit). Classification of fruits. Seed and fruit dispersion.			
<i>Practical part</i> – Dicot and monocot embryo. Meristematic tissues – apical and lateral meristems. Permanent tissues: parenchyma, mechanical, dermal, vascular and secretory tissues. Root morphology. Root anatomical structure (primary and secondary). Root metamorphoses. Shoot morphology (stem and leaf). Stem anatomical structure (primary and secondary). Stem structure of aquatic plants. Leaf anatomical structure (heliomorphic, sciomorphic, xeromorphic, hidromorphic and halomorphic). Shoot metamorphoses. Morphology and anatomy of reproductive organs. Flower (parts, flower formulas and diagrams). Anatomical structure of sepal, petal, stamen and pistil. Inflorescences (types, classification). Morphology of seed and fruit. Classification of fruits. Anatomical structure of seed coat and pericarp.			
Reading List:			
1. Tatic, B. Petkovic, B. (1998): Morfologija biljaka. Zavod za udzbenike i nastavna sredstva, Beograd.			
2. Merkulov, Lj., Lukovic, J. (2003): Botanika- Anatomija i morfologija biljaka. prirodno-matematicki fakultet, Novi Sad.			
3. Dickison, C.W. (2000): Integrative Plant Anatomy. Harcourt academic press, New York, London.			
4. Fahn, A. (1990): Plant Anatomy. Pergamon Press, London.			
Total hours:			
Lectures: 3	Practicals: 3	Other:	Student research work:
Methods of instruction: lectures, exercises, consultations			
Assessment (maximum number of points 100)			
Requirements	points	Final exam	points
Active participation in lectures		Test	50
Active participation in practicals		Practical exam	20
Colloquia	30		
Pre-exam testing			