

Study Programme: PhD in Biology
Course Unit Title: Plant Taxonomy
Course Unit Code: DNB001
Name of Lecturer(s): Associate Professor Goran Anačkov
Type and Level of Studies: PhD Academic Degree
Course Status (compulsory/elective): Elective
Semester (winter/summer): Winter
Language of instruction: English
Mode of course unit delivery (face-to-face/distance learning): Face-to-face
Number of ECTS Allocated: 15
Prerequisites:
Course Aims: Qualifying students for independent work in taxonomic laboratories, dealing with problems in taxonomy of higher plants. Mastering the techniques used in the plant taxonomy, knowledge of International Code of Botanical Nomenclature.
Learning Outcomes: Application of acquired knowledge in scientific research, active searching of literature and new results in the field of plant taxonomy, self-creation of working hypothesis and implementation of it in the research process, the development of taxonomic thought and proper interpretation of results.
Syllabus: <i>Theory</i> Relationships between systematics and taxonomy. Definition of the taxonomy. Definition and concept of species. Research of history and development of plants by geochronological categories with special emphasis on those periods and times that are important to the occurrence and radiation of certain division of higher plants. The history of systematics. Taxonomic categories. Tipification, principles, rules and recommendations. Using of various characters and methods in taxonomy of higher plants: morphological, micromorphological, anatomical, physiological, biochemical methods, for merging or separation of taxa at different levels of classification. Terms of describing new species, effective publication. International Code of Botanical Nomenclature. <i>Practice</i> The exercises are based on fresh plant material which needs to be collected by student. Each student analyzes one group of plants/taxon, from different populations, using a variety of (at least three) taxonomic methods. Results of the analysis are listed in the protocol. Morphological, anatomical and physiological methods will be analyzed in different statistical methods, which indicate the distance among individuals of analyzed population. Results of practical teaching need to be summarized in the form of a seminar paper.
Required Reading: 1. Stuessy, T. (2009): Plant Taxonomy – The Systematic Evaluation of Comparative Data, 2 nd ed. Columbia University Press, New York. 2. Steussy, T., Crawford, D., Soltis, D. & Soltis, P. (2014): Plant Systematics – The Origin, Interpretation, and Ordering of Plant Biodiversity. Koeltz Scientific Books, Oberreifenberg. 3. Turland, N. J., Wiersema, J. H., Barrie, F. R., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Kusber,

W.-H., Li, D.-Z., Marhold, K., May, T. W., McNeill, J., Monro, A. M., Prado, J., Price, M. J. & Smith, G. F. (eds.) 2018: International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. Regnum Vegetabile 159. Glashütten: Koeltz Botanical Books. DOI <https://doi.org/10.12705/Code.2018>

4. Recommended doctoral dissertations and master theses in the field of taxonomic methods by the mentor. Scientific papers and web pages with current problems in plant taxonomy

Weekly Contact Hours: 15	Lectures: 10	Practical work: 5
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Teaching Methods:
Lectures, individual consultations, laboratory work, seminar papers.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation		written exam	
Practical work	50	oral exam	50
Preliminary exam(s)		
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.