Study Programme: PhD in Biology

Degree level: Doctoral degree

Course Title: Plant taxonomy

Professor: Goran Anačkov, PhD associate professor

Required/Elective Course: Elective Course

Number of ECTS: 15

Prerequisites:

Course Objective: 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.

Course Outcome: 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.

Course Content:

Theoretical part

Relationships between systematics and taxonomy. Definition of the taxonomy. Definition and concept of species. Research of history and development of plants by geohronological categories with special emphasis on those periods and times that are important to the occurence 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 metods, for merging or separation of taxa at different levels of classification. Terms of describing new species, effective publication. International Code of Botanical Nomenclature.

Practical part

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.

Reading List:

1. Grant, W.F. (1984): Plant Biosystematics. Academic Press, Toronto.
2. Greuter, W., ed. (2000): International Code of Botanical Nomenclature. International Association for Plant Taxonomy. St. Louis, Missouri, USA.
3. Sivarajan, V.V., Robson, N.K.P. (1984): Introduction to the Principles of Plant Taxonomy. Oxford and IBH Pub. New Delhi.
4. Šugar, I. *transl*. (1987): International code of botanical nomenclature. SNL, Zagreb.
5. Takhtajan, A. (1997): Diversity and Classification of Flowering Plants. Columbia University Press, New York.
6. Walters, D.R., Keil, D.J., Walters, B. Murrell, Z.E. (2002): Vascular Plant Taxonomy. Oxford and IBH Pub., New Delhi.
7. 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

Total hours:			10	
Lectures: 5	Practicals:	Other:	Student research work: 5	

Methods of instruction:

Lectures, individual consultations, laboratory work, seminar papers.

Assessment (maximum number of points 100)

Requirements

The oral exam, defended seminar paper, written exam.

Remark: