Study Programme : BSc in Biology/Ecology

Degree level: Bachelor degree

Course Title: Palynology

Professor: Smiljka Šimić, PhD

Elective Course

Number of ECTS: 5

Prerequisites: Plant anatomy and morphology and General zoology

Course Objective: Introduction to function, structure, development and morphology of pollen grains. The course will present the methodology aquired in different palynologycal disciplines as well as the application of their results, giving special attention to sampling methodology, data analysis and application.

Course Outcome: The knowledge obtained within this course will enable students to work in palynologycal laboratories worldwide as well as to continue their education in specialized and advanced palynologycal courses.

Course Content:

Theoretical part: First part of the course aims to teach on pollen function, structure, development and morphology. Second part of the course during which students will be taught about basic palynologycal disciplines and methods applied in these disciplines The theoretical information will be presented during lectures as well as description and basis of important methods in aeropalynology, melissopalynology, zoopalynology, palaeopalynology and application of fundamental palynology in plant taxonomy.

Practical part

Goal of these exercises is to develop skills in using light microscope and digital camera and software for imaging in pollen observation and to present the most important morphological features of pollen grains. Practicals will teach: pollen extraction from flowers and preparation of microscopyc slides in order to enable observation of pollen morphology (size, type of apertures, surface characteristics and special morphologycal characters); techniques of light microscopy and SEM in pollen analysis. Exercises will give opportunity to practice important steps of particular palynologycal method aquired in taxonoly, aeropalynology, melissopalynology, entomopalynology and paleopalynology (pollen extraction, slide preparation, sample analysis, qualitative analysis and quantification of pollen).

Reading List:

Šimić, S., Radišić, P., Šikoparija, B. i Dulić, I. Palinologija. Novi Sad, 2007.
Moore, P.D. i Webb, J.A. An illustrated guide to pollen analysis. Hodder and Stoughton, London 1978, pp 279.
Ricciardelli D'Albore, G. Textbook of melissopalynology. Apimondia Publishing House, Bucharest 1997, pp 308.
Punt, W., Blackmore, S., Nilsson, S., Le Thomas, A. (1994): Glossary of Pollen and Spore Terminology. Lpp Foundation, Utrecht
Ercegovac, M. Mikropaleontologija – Mikropaleobotanika. Naučna knjiga, Beograd 1981, str. 322.
Stevanović, B. i Janković, M. Ekologija biljaka sa osnovama fiziološke ekologije biljaka. NNK Internacional, str. 410-428.

Total hours:				
Lectures: 2	Practicals: 2	Other:	Student research work:	

Methods of instruction:

Lectures, practical exercises, seminars

Assessment (maximum number of points 100)

Requirements	**points**	**Final exam**	**points**
Active participation in lectures and practicals	4	Practical exam: Assessment of independence in conducting one of palynologycal methods	45
Pre-exam testing	*45*		
Seminar	*6*		

Remark: