

Study Programme: BSc in Biology
Course Unit Title: EDIBLE AND POISONOUS FUNGI
Course Unit Code: OB030
Name of Lecturer(s): Associate Professor Maja Karaman
Type and Level of Studies: Bachelor
Course Status (compulsory/elective): elective
Semester (winter/summer): summer
Language of instruction: English
Mode of course unit delivery (face-to-face/distance learning): face to face
Number of ECTS Allocated: 5
Prerequisites:
<p>Course Aims:</p> <p>The objective of the course is to familiarize students with: the importance of mushrooms as a specific group of organisms from the aspect of their use in nutrition and healing treatment (functional food), but also as groups of microorganisms that produce specific toxins and thus poses a threat to human health. Introducing students with basic morpho-anatomical characteristics of edible mushrooms and their nutritional values, as well as with the most important species and genera of toxic mushrooms, the chemical nature of toxic substances, poisoning syndromes and first aid measures.</p>
<p>Learning Outcomes:</p> <p>Identification of basic species and genera of edible and poisonous fungi in nature; Understanding the importance of using mushrooms in a diet as a source of healthy food (vitamins, minerals, essential amino acids, ballast non-viable components) and as a supplement, dietary supplements (beverages, tinctures, etc.); Identification of poisoning syndrome and first aid procedures.</p>
<p>Syllabus:</p> <p><i>Theory.</i> Life strategies and the importance of mushrooms; Rules for collecting mushrooms in the field and preparing edible mushrooms; Determination of fungi with special reference to edible and poisonous species; Nutritional values of mushrooms; Medicinal properties of mushrooms; The most important types of edible mushrooms; Types of mushrooms grown for commercial use; Mechanisms of toxins; Heavy metals, radioactive elements and other toxic, poisonous substances in wild growing mushrooms; False and mild mushroom poisoning; The most important poisonous fungi and poisoning syndromes: phalloidin, orellanin, gyromitrin, muscarin, pantherin, psilocybin, coprinus syndrome, paxillus syndrome, gastrointestinal syndromes; Recognition of symptoms of mushroom poisoning, first aid procedures and treatment.</p> <p><i>Practice.</i> field work - recognition of edible and poisonous mushroom species and rules of collecting edible species, laboratory work - determination of edible and poisonous mushroom species, conservation of mushrooms, preparation of beverages and tinctures, first aid procedures and treatment etc.</p>
<p>Required Reading:</p> <ol style="list-style-type: none"> 1.Chang, S.T. & Miles, P. (2004): Mushrooms– cultivation, nutritional value, medicinal effect and environmental impact, 2nd Edition, CRC Press, Boca Raton, Florida. 2.Bresinsky, A. & Besl., H. (1990): A Colour Atlas of Poisonous Fungi, Wolfe Publishing Ltd., London, England. 3.Uzelac, B. (2005): Skripta za sakupljače gljiva - početni kurs, Beograd. 4.Jordan, M. (1998): The Encyclopedia of Fungi of Britain and Europe, David & Charles, Edinburgh. 5.Courtecuisse, R., Duhem, B. (1995): Mushrooms and Toadstools of Britain& Europe, Collins, London.

6. Phillips, R. (1994): Mushrooms and other Fungi of Great Britain and Europe, Macmillan, London.

7. Узелац Б. (2009): Гљиве Србије и Западног Балкана, BGV, Logik, Beograd

Weekly Contact Hours:

Lectures: 2

Practical work: 2

Teaching Methods: Lectures, laboratory exercises, colloquiums, fieldwork, and seminar work on selected topics.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	2	written exam	20
Practical work	18	oral exam	20
Preliminary exam(s)	30	
Seminar(s)	10		