Course Unit Descriptor

Study Programme: Fruit growing and viticulture
Course Unit Title: Nutraceuticals and Functional food
Course Unit Code: 19.VI1042
Name of Lecturer(s): Prof. Boris Popović, Ass. Prof. Ružica Ždero Pavlović, Assistant Ph.D. Bojana Blagojević
Type and Level of Studies: Graduated-Master
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: 6
Prerequisites: None
Course Aims: To gain knowledge and scientific abilities, as well as the development of creative skills and practical skills necessary for the exercise of the profession, which are related to contemporary science in world.
Learning Outcomes: After completing the course of Functional food, students will be prepared to follow contemporary achievements in science and profession and to solve problems using scientific methods in different area of healthy food production and plant growing.
Syllabus: *Theory* Chemical constituents of food. Micro- and macro-nutrients. Proteins carbohydrates and lipids.Vitamines, minerals and trace elements. Important biologically active food components: carrotenoids; phenolic compounds (flavonoids, phenolic acids and tannins); phytoestrogens, phytosterols and saponins; fatty acids; monoterpenes; glucosinolates; isothiocyanates; thiols; alkaloids; glycosides; enzymes; probiotics; prebiotics and raw vegetable fibers. Nutraceuticals in different foods. Dietetic products and supplements. Enrichment and fortification *Practice* Sampling biological material. Methods for the determination of antioxidant capacity. Determination of different polyphenols from natural sources. Principles of HPLC analysis. Determination of different of biologically active compounds and *in vitro* biochemical tests.
Required Reading: 1. Wildman, C. Handbook of Nutraceuticals and Functional Foods. CRC Press, 2001. 2. М. Јашић, Биолошки активни састојци хране, Технолошки факултет, Тузла, 2010. 3. Б. Новаковић, Љ.Торовић, Броматологија, Медицински факултет, Нови Сад, 2014.

Weekly Contact Hours:	**Lectures: 2**	**Practical work: 2**

Teaching Methods:
Lectures and students group work

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Active class participation		written exam	60
Practical work		oral exam	If necessary
Preliminary exam(s)		…….	
Seminar(s)	40		