Course Unit Descriptor

Study Programme: Fruit science, viticulture and horticulture/ module Fruit science and viticulture

Course Unit Title: GROWING OF ALTERNATIVE FIELD CROPS

Course Unit Code: 19.VI1027

Name of Lecturer(s): Prof. Dragana Latković, PhD; Assoc. Prof. Goran Jaćimović, PhD

Type and Level of Studies: UAS

Course Status (compulsory/elective): elective

Semester (winter/summer): summer

Language of instruction: ENG

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: General filed crops, Soil science and fertilizers, Agricultural engineering

Course Aims:

The aim of the course is that students learn how to in existing agro-ecological conditions may to achieve high and stable yields of good quality with satisfactory profitability and preservation of soil fertility. Will be studied the following, in the world significant, but in our conditions less represented or promising plant species: specific types of wheat (spelt, kamut etc.) rye, sorghum, millet, rice, buckwheat, lentils, chickpeas, faba beans, grass pea, peanut, castor, sesame seeds, safflower, cotton, kenaf, abutilon, chicory, sweet potatoes.

Learning Outcomes:

After completion of lectures and exercises student will be qualified and informed with the basic elements of growing technology of alternative field crops. After passing the exam, the candidate will be qualified to lead the production of these plants and to be successful in their production; and will be trained to combine the knowledge, ability and skills with the given environmental and edaphic conditions.

Syllabus:

Theory: For each plant species will be studied following chapters: 1) General characteristics: economic importance, area and yields in the world and in our country, geographic distribution, origin and history of plant species. 2) Biological characteristics and requirements for growing conditions. 3) Production technology: crop rotation (rotation and convenience in the crop rotation), tillage; seedbed preparation; fertilization (manner, time and amount of nutrients), sowing (choice of varieties and hybrids, seed quality, seed preparation for sowing, time and method of sowing, sowing rate or crop density which need to be achieved with emphasis on varietal specificity); crop care (fight against weeds, pests and diseases, eventually application of nitrogen, inter-row cultivation and specific measures of care); harvest (physiological and technological maturity, time and method of harvesting, processing and storage of finished products). In the context of growing technology, special attention will be paid to the quality of the applied measures and cost-effectiveness.

Practice: On the exercises, students will be conversant with the morphology of the above species, with the stages of growth and development (phenological phases). Within exercises will be presented fresh and dry plant material and photos (slides) of plants. Looks of certain plants students will be able to see in the botanical garden.

Required Reading:

Weekly Contact Hours: Lectures: 2 Practical work: 2

Teaching Methods: Lectures and students group work and consultations

Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class	5	written exam	
participation	3	written exam	
Practical work	25	oral exam	70
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.