

Course Unit Descriptor

Study Programme: Soil, plant and genetics. Module: Field crop production			
Course Unit Title: Production of medicinal, aromatic and spice plants			
Course Unit Code: 19.ZB3007			
Name of Lecturer(s): Prof. Jovan Crnobarac, PhD; Assoc. Prof. Goran Jaćimović, PhD ; Prof. Dragana Latković, PhD;			
Type and Level of Studies: Master Academic Studies			
Course Status (compulsory/elective): Compulsory			
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: Agroecology and protection of the agroecosystem			
Course Aims: The aim is to introduce students with the most important species of wild and cultivated medicinal plants that are increasingly required in the domestic and foreign markets, as the necessary raw materials for the pharmaceutical and food industries. The collection of medicinal plants from spontaneous flora, so far has been performed insufficiently skilled, disorganized, uncontrollable, which contributed to vulnerability of certain very important plant species. By controlled field production would be obtained pure, high-quality, typified raw material for the market.			
Learning Outcomes: After completion of lectures and practical work in the cultivation of medicinal, aromatic and spice plants in experimental and production conditions, the candidate will be able to collect, i.e. produce and prepare quality raw material for fitopreparates. The candidate will be able to analyze the success in production and to create production technology and primary processing of medicinal, aromatic and spice plants.			
Syllabus: <i>Theory</i> On the course will be study the following medicinal, spices and aromatic plant species per family: I Fam. Apiaceae: fennel, caraway, coriander, anise, dill. II Fam. Lamiaceae: mint, lavender, lemon balm, sage, clary sage, thyme, majoram, basil. III Fam. Asteraceae: pyrethrum, wormwood, tarragon, chamomile, calendula. IV Fam. Malvaceae: marshmallow. V Fam. Valerianaceae: valerian. VI Fam. Scrophulariaceae: woolly digitalis, purple digitalis. In the teaching process, special attention will be paid to the growing technologies. Teaching will be held by preparing seminar papers, too. <i>Practical work</i> Introducing by the herbarium samples of medicinal plants, whole and cut drugs, analysis of mixtures. Estimation of the quality of drugs according to Pharmacopeia. Program of field exercises: botanical determination, sampling and analysis, exploring the basis of production, propagation, cultivation, care, protection, harvesting, drying, packaging, etc.			
Required Reading: John H. Martin, Richard P. Waldren, David L. Stamp: Principles of Field Crop Production, Pearson Education Inc., Upper Saddle River, New Jersey, Columbus, Ohio, USA, 2006. Bharat P. Singh: Industrial Crops and Uses. Fort Valley State University, Georgia, USA, CAB International, 2010. Internet and digital sources: Thematic international journals and lecture notes of professor.			
Weekly Contact Hours: 4	Lectures: 30	Practical work: 30	
Teaching Methods: Lectures and students group work and consultations.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	10	oral exam	20
Practical classes	20		
Colloquium	20		
Seminar papers	15+15		