Study Programme: CROP SCIENCE

Course Unit Title: MEDICINAL, AROMATIC AND SPICE PLANTS

Course Unit Code: 19.ORG026

Name of Lecturer(s): Prof. Jovan Crnobarac, PhD; Assoc. Prof. Goran Jaćimović, PhD

Type and Level of Studies: UAS

Course Status (compulsory/elective): compulsory

Semester (winter/summer): winter

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 is to introduce students with the most important species of our 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:**

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After completion of lectures and exercises student will be qualified with the basic elements of growing technology of medicinal, aromatic and spice plants. After passing the exam, will be qualified to lead the production of cultivated, trained to collects and prepares these plants based on knowledge, ability and skills with the given environmental conditions.

## Syllabus:

*Theory:* In the general part will be studied: the definition of the course, division, professional nomenclature and herbal medicinal ingredients. In the next section will be studied: agrotechnical basics of growing of medicinal, aromatic and spice plants, propagation, care, protection, harvesting, drying, primary processing, packaging, storage and transport. In the primary processing will be studied: stabilization, fermentation, standards and impurities, substitutions, forgeries, and the causes of deterioration of raw materials. Drug use in pharmaceutical, cosmetic, parfumery, food and other industries. In a separate section will be studied the following plant species per family: I Apiaceae: fennel, caraway, coriander, anise, dill. II Lamiaceae: mint, lavender, lemon balm, sage, clary sage, thyme, marjoram, basil. III Asteraceae: pyrethrum, wormwood, tarragon, chamomile, calendula. IV Malvaceae: marshmallow. V Valerianaceae: valerian. VI Scrophulariaceae: woolly digitalis, purple digitalis.

*Practice:* 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:				
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	35		
participation	5	witten exam			
Practical work	25	oral exam	35		
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.					