Study program: Integrated academic studies of Pharmacy

Type and level of the study program: integrated academic studies

Course title: ECONOMIC BOTANY (PhII-EBOT)

Teachers: Nebojša V. Kladar

Course status: elective **ECTS Credits: 3**

Condition: General Botany; Plant Systematization

Course aim

The main aim of this course is to introduce students to the potential of certain regions in Serbia for the production a food and medicinal raw materials, as well as training them for independent work in the field, manufacturing and processing plants from raw material to the final product and laboratories.

Expected outcome of the course:

It is expected that after completing the course, students gain full independence in the entire process of production of herbal drugs, from the moment of habitat selection, cultivation and collection of herbal products, to the time for preparation of the drug. Also, it is expected that students master skills of work which includes the collection, determination and preparation of plant material for the food and pharmaceutical industries, as well as the ability to independently prepare herbal drugs and perform their quality control.

Course description

Theoretical education:

- 1. History of use and research of plants, plants as fodd, spices and medicines.
- 2. Alkaloid Natural resources: diversity of Serbian flora, autochtonous, official and potentially medicinal, as well as aromatic plants.
- 3. Endemic species: status of wild populations and causes of vulnerability.
- 4. Grains and legumes.
- 5. Fruits and vegetables.
- 6. Herbal beverages (juices and nonalcoholic drinks, alcoholic drinks, coffee, tea and other beverages with caffeine).
- 7. Spices.
- Medicinal plants. 8.
- Tobacco and narcotics drugs 9.
- 10. Wood and wood products.
- 11. Fibers (paper, textile fibers).
- 12. The economic potential of production of medicinal plants in Serbia.
- 13. Permanently sustainable use of wild plants and legislation.
- 14. Genetically modified plants.

Practical education (labs):

- 1. Field work (exploring the flora of Serbia).
- Collection of plant material. 2.
- 3. Determination of plant material.
- Preparation of drugs from plant material collected: 4.
 - Chopping
 - Drying
 - Stabilization
 - Sterilization
 - Packing
 - Storage
 - Transport

5. Preparation of food products (herbal drink).

Literature

Compulsory

1. Pandey BP. Economic Botany. S. Chand Publishing (any edition).

Additional

1. Flora of Republic of Serbia Vol. 1-10, SANU, Belgrade (any edition).

Number	

Number of active classes			Other:	
Lectures:	Practice:	Other types of teaching:	Research related activities:	-
30	15	-	-	
Teaching methods				

1. Theoretical education

2. Practical education (Field work, Practical classes, Seminars)

Student activity assessment (maximally 100 points)					
Pre-exam activities	points	Final exam	points		
Lectures	5	Written	20		
Practices	15	Oral	40		
Colloquium	-				
Essay	20				