Study program: Integrated academic studies of Medicine

Type and level of the study program: integrated academic studies

#### Course title: RATIONAL PHYTOTHERAPY (M4-PHYTO)

Teachers: Biljana N. Božin, Isidora N. Samojlik, Vesna M. Mijatović, Neda S. Gavarić

Course status: elective

ECTS Credits: 3

**Condition:** Special pharmacology

#### Course aim

The aim of this course is to provide to students of integrated studies of medicine basic information on modern phytotherapy as a way of complementary medicine and its importance in conventional medicine.

## **Expected outcome of the course:**

Students will acquire knowledge on most important phytopreparations applied in Serbia and worldwide, their active components, therapeutical dosage, modes of action active components, as well as on potential interactions and adverse effects. Also, students will be able to make the difference between herbal remedies and dietary supplements, as well as the recommendations for their categorization.

Students should be skilled in rational selection of appropriate phytopreparations (registered as herbal medicine or dietary supplement) and their role in modern therapy approaches, to be trained in preparing and applying of different types of phytopreparations. The students will also learn about the methods for identification and determination of content of the active components in herbal remedies.

# **Course description**

### Theoretical education:

- 1. Rational phytotherapy, definition and role in modern medicine
- 2. Standardization, registration; legislation and guidelines for use of phytopreparations
- 3. Biological, pharmacological and clinical testing of phytopreparations
- 4. Pharmacological characteristics of particular groups of phytopreparations
- 5. Phytopreparations in the therapy and prevention of diseases of major organ systems (CNS, gastrointestinal, respiratory, urogenitaly tract, metabolic and disorders of immune and reproductive system, liver and biliary tract disorders)
- 6. Specificities of dosage of phytopreparations
- 7. Advantages and precautions in usage of phytopreparations
- 8. Adverse effects and interactions of phytopreparations with particular drug categories
- 9. Phytonutrients
- 10. Adaptogens

### Practical education (labs):

- Pharmaceutical dosage forms of phytopreparations preparation and application, storage and disposal
- 2. Registration of phytopreparations (herbal remedy or dietary supplement)
- 3. Analysis and control of the Guidelines for usage of phytopreparations
- 4. Data sources on phytopreparations
- 5. Identification and determination of the content of active component in phytopreparations
- 6. Compatibility with the Guidelines for usage of commercial herbal medicines
- 7. Selection of appropriate phytopreparation in the prevention and/or therapy of the disease

# Literature

## Compulsory

- 1. Capasso F, Gaginella TS, Grandolini G, Izzo AA. Phytotherapy A Quick Reference to Herbal Medicine. Springer, 2003.
- 2. Laboratory classes in Basics of Phytotherapy, script for internal use. Department of Pharmacy, Faculty of Medicine, Novi Sad.

## Additional

- 1. Blumenthal R. The Complete German Commission E Monographs. American Botanical Council, Austin, 1999.
- 2. Schulz V, Haensel R, Tyler VE. Rational Phytotherapy. Springer-Verlag, Berlin, Heidelberg, 2001.
- 3. Heinrich M, Barnes J, Gibbons S, Williamson E. Fundamentals of Pharmacognosy and Phytotherapy. Churchill Livingstone, Edinburgh, London, 2004.
- 4. WHO Monographs, Vol. 1-4. World Health Organization, Geneva.

Number of active cl	Other:			
Lectures:	Practice:	Other types of teaching:	Research related activities:	-
30	15	<del>-</del>	-	

### Teaching methods

- 1. Theoretical education (Lectures, Interactive Lectures)
- 2. Practical education (Practical Classes)

Student activity assessment (maximally 100 points)					
Pre-exam activities	points	Final exam	points		
Lectures	5	Written	20		
Practices	5	Oral	30		
Colloquium	10				
Essav	30				