

**2023/2024. ACADEMIC YEAR**

**PROGRAM OF STUDY**

<b>Full (Hungarian) name of the subject: FITOTERÁPIA</b>							
<b>Program:</b> Undivided program (pharmaceutical)							
<b>Schedule:</b> full-time							
<b>Short name of the subject:</b> Phytotherapy							
<b>English name of the subject:</b> Phytotherapy							
<b>German name of the subject:</b> Phytotherapie							
<b>Type of registration:</b> <u>obligatory</u> /obligatory elective/elective/criteria requirement							
<b>Neptun code of the subject:</b> GYKFMG092E1A							
<b>Responsible Department:</b> Department of Pharmacognosy							
<b>Responsible tutor</b> Dr. Ágnes Alberti <b>Contact information:</b> - <b>phone:</b> +3620/825-8389 - <b>email:</b> alberti.agnes@semmelweis.hu				<b>Title, academic degree:</b> Associate professor, Ph.D.			
<b>Name of the persons responsible for the teaching of the subject:</b> Ágnes Alberti Eszter Riethmüller Orsolya Csernák Ida Fejős Csenge Anna Felegyi-Tóth Nóra Gampe				<b>Title, academic degree:</b> <b>associate professor, Ph.D.</b> assistant professor, Ph.D. assistant professor, Ph.D. assistant professor, Ph.D. assistant lecturer, Ph.D. assistant lecturer, Ph.D.			
<b>Class per week:</b> 2 lectures				<b>Credit point(s):</b> 2 credits			
<b>Professional content, intent of acquirement and its function in order to implement the goals of the program:</b> The aim of the course is to acquaint pharmacy students with herbal drugs and medicines, dietary supplements and other preparations that can be used in rational phytotherapy: focusing on their composition, effects, methods of administration, indications of therapy, relevant pharmacological and clinical data, major side effects and interactions. It provides a basis for the selection of herbal medicines with traditional or well-established use in stand-alone or complementary therapy. It contributes to the assessment of herbs according to their real values, to the recognition of their importance in prevention and therapy.							
<b>Short description of the subject:</b> In the context of the subject, lecturers describe the relevant areas of indication in rational phytotherapy and the medicinal plants and plant-based preparations that can be used, including their active ingredients. The subject describes industrial / galenic preparations, tea blends and recipes containing medicinal plants. It presents the mechanisms of action revealed so far, the most significant synergistic effects, the possible side effects, and interactions. It deals with the data of clinical studies, recommendations for use and dosing, and presents examples for herbal medicines and phytotherapeutic preparations from Hungary and other countries.							
<b>Course data</b>							
Recommend ed term	Contact hours (lecture)	Contact hours (practice)	Contact hours (seminar)	Individual lectures	Total number of contact hours/semester	Normal course offer	Consult ations
8th semester	28	-	-	-	28	Autumn semester* <b>Spring semester</b> Both semesters (* Please underline)	--

**Program of semester\*\***

**Topics of theoretical classes (pro week):**

1. week: The place of phytotherapy in drug therapy. Characteristics and development of phytotherapeutic products.
2. week: Evidence of efficacy of phytotherapeutics, herbal monographs (EMA/HMPC, ESCOP, WHO, etc.).
3. week: Interactions of medicinal plants and their active substances. Phytotherapeutics and adverse drug interactions.
4. week: Side effects of medicinal plants and their active ingredients, the role of the quality of phytotherapeutics in the occurrence of side effects.
5. week: Herbs and their preparations acting on the central nervous system.
6. week: Herbs and their preparations for upper respiratory diseases.
7. week: Herbal products acting on the digestive tract I.
8. week: Herbal products acting on the digestive tract II.
9. week: Herbs and metabolic syndrome.
10. week: Herbs and their preparations that act on the cardiovascular system.
11. week: Phytotherapeutics for diseases of the urogenital system.
12. week: Herbal anti-inflammatories and analgesics.
13. week: Herbs for skin and oral mucosa diseases.
14. week: Immunomodulatory and adaptogenic medicinal plants.

**Topics of practical classes (pro week): -**

**Schedule of consultations:** on demand

**Course requirements**

**Prerequisites:** Pharmacognosy II.

**Conditions of attending the classes, amount of acceptable absents, way of presentation of leave, opportunity for makeup:** Based on the current Study and Exam Regulations

**The grading method; the conditions for getting the signature; the number, topic(s) and date(s) of the mid-term assessments, the end-of-term assessments (reports, term tests), and the process in which they contribute to the final grade; and the possibility of their retake or their upgrading retake (as provided in §§ 25-28 of the STUDY AND EXAMINATION REGULATIONS):**

**Number, topics, and dates of tests during the semester, opportunities of makeup and improvement of results\*\*\*: -**

**Requirements of signature(as provided for in STUDY AND EXAMINATION REGULATIONS § 29):** According to the current in STUDY AND EXAMINATION REGULATIONS

**Number and type of projects students have to perform independently during the semester and their deadlines: -**

**Type of the semester-end examination:** signature\*/practical grade\*/semi-final\*/final\* (\* Please underline)

**Examination requirements:** as published by the education-research department on the MOODLE interface by the start of the academic term.

**Form of the semester-end examination:** written\*/oral\*/combined examination/practical examination/the assessment of completing project work (according to STUDY AND EXAMINATION REGULATIONS 30.§)\* (\* Please underline)

**The possibility and conditions for offering grades: -**

**A list of the basic notes, textbooks, resources and literature that can be used to acquire the knowledge necessary to master the curriculum and to complete the assessments, \*\*\*\*-with exact description about which of them is required to acquire which part of the syllabus (e.g. description based on topics)), as well as the main technical and other aids and study aids that can be used:**

Topic list and lectures to be used for learning, requirements

1. The place of phytotherapy in drug therapy, categorization and specificity of phytotherapeutic preparations – **lecture 1**
2. Proof of the effectiveness of phytotherapy, herbal monographs - **lecture 2**
3. Side effects of herbs, inadequate quality as a possible source of side effects – **lecture 3**
4. Demonstration of synergistic and antagonistic interactions of phytotherapeutics with examples – **lecture 3**
5. Drug interactions of phytotherapeutics – **lecture 4**
6. Herbs acting on the central nervous system – **lecture 5**
  - St. John's wort
  - Valerian
  - Hop strobile
  - Lime flower
  - Passionflower herb
  - Lavander
  - Melissa leaf
  - Lemon verbena leaf
  - Eschscholziae herba
7. Herbs used to relieve the symptoms of upper respiratory tract diseases – **lecture 6**
  - Herbs used to relieve runny nose, nasal congestion: peppermint oil, eucalyptus oil
  - Herbs used to relieve sore throat: medical sage leaf, matricaria flower, Iceland moss, Ribwort plantain
  - Medicinal plants with diaphoretic effect: lime flower, elder flowers
8. Herbs used to treat cough – **lecture 6**
  - Herbs with antitussive effect: Iceland moss, ribwort plantain, marshmallow root, honey, mallow leaf and flower
  - Plants with expectorant effect: ipecacuanha root, ivy leaf, primula root, senega root, liquorice root, thyme, thyme oil, anise oil, peppermint oil, eucalyptus oil
  - For the treatment of both dry and productive: Iceland moss, ivy leaf
9. Herbs used in diseases of the gastrointestinal tract: appetite enhancers, antiemetics, stomachics, digestives, carminatives – **lecture 7**
  - Herbs used in the treatment of loss of appetite: gentian root, white wormwood, white horehound, bogbean leaf, centaury, holy thistle, ginger peppermint leaf, peppermint oil, caraway, bitter fennel fruit / fruit oil, matricaria flower
  - Herbs with antiemetic effect: ginger
  - Herbs with carminative effect: caraway fruit/fruit oil, bitter fennel fruit / fruit oil, peppermint leaves, peppermint oil, matricaria flower
10. Herbs used in diseases of the gastrointestinal tract: laxatives, constipatives – **lecture 8**
  - Herbs containing dietary fiber: psyllium seed, ispaghula husk, linseed
  - Herbs with laxative action: castor oil, frangula bark, cascara bark, senna leaflets, senna pod, rhubarb root, psyllium seeds and ispaghula husks, linseed

Herbs that can be used in the treatment of diarrhea: agrimony, green tea, black tea, psyllium seeds and isphagula husks,

11. Herbs that can be used in the treatment of diseases of the hepatobiliary system - **lecture 7**

Herbs with cholagogue effect: artichoke leaves, holy thistle, turmeric rhizome

Herbs with hepatoprotective action: milk thistle fruit, liquorice root

12. Herbs acting on the cardiovascular system; Herbs and metabolic syndrome – **lecture 9**

Herbs that affect the cardiovascular system: hawthorn leaf and flower and fruit, horse chestnut, butcher's broom, flavonoids, centella, ginkgo leaf

Herbs and metabolic syndrome: phytosterols, garlic

13. Herbs used in diseases of the genitourinary system – **lecture 11**

Herbs used in the treatment of urinary tract infections: bearberry leaf, American cranberry,

Diuretic herbs: goldenrod, birch leaves, equisetum stem, java tea, restharrow root, nettle, dandelion root, burdock root, couchgrass rhizome, juniper cone berry

Herbs used to relieve the symptoms of benign prostatic hyperplasia: sabal palm fruit, pumpkin seeds, pumpkin seed oil, nettle root, willow herb, rye pollen

Herbs used to relieve the symptoms of menopause: black cohosh, phytoestrogens

Herbs that can be used to relieve complaints before menstruation: agnus castus fruit

Herbs to relieve the symptoms of menstruation: shepherd's purse, yarrow, bitter fennel fruit

14. Herbal anti-inflammatories, herbs for use in musculoskeletal disorders – **lecture 12**

Hyperemic herbal preparations: peppermint oil, eucalyptus oil, rosemary leaf and oil, red pepper /red pepper extract, methyl salicylate

Analgesic herbs applied externally: comfrey root, calendula, arnica

Analgesic herbs used internally: willow bark, meadowsweet, devil's claw root, ash tree leaf, incense, turmeric rhizome

Herbs for the treatment of headache: peppermint oil, capsaicin, feverfew

15. Herbs that can be used in diseases of the skin and oral mucosa – **lecture 13**

Antiviral herbs: melissa leaf, greater celandine

Herbs used in the treatment of skin infections: tea tree oil, sage leaf, clove oil

Herbs with a wound healing effect: calendula, centella, matricaria flower and oil, yarrow, rose, St. John's wort, hamamelis leaf and bark, pansy

Herbs for the treatment of atopic skin: evening primrose oil, soy oil

Herbs that can be used for the care of oral mucosa: tea tree oil, calendula, matricaria flower

16. Herbs with immunomodulatory and adaptogenic effects – **lecture 14**

Herbs with immunomodulatory action: purple coneflower herb, geranium root

Herbs with adaptogenic effect: ginseng, eleutherococcus, golden root

**In the case of a subject lasting more than one semester, the position of the teaching/research department on the possibility of parallel enrolment and the conditions for admission\*\*\*\*:**

yes\*/no\*/on and individual assessment basis\* (*Please underline*)

**The course description was prepared by:** Dr. Ágnes Alberti