2024/2025. ACADEMIC YEAR

PROGRAM OF STUDY

Full (Hungarian) name of the subject: FITOTERÁPIA

Program: Undivided program (pharmaceutical)

Schedule: full-time

2 lectures

Short name of the subject: Phytotherapy
English name of the subject: Phytotherapy
German name of the subject: Phytotherapie

Type of registration: obligatory/obligatory elective/elective/criteria requirement

Neptun code of the subject: GYKFMG092E1A

Responsible Department: Department of Pharmacognosy

Responsible tutor	Title, academic degree:
Dr. Ágnes Alberti	Associate professor, Ph.D.
Contact information:	
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Name of the persons responsible for the	Title, academic degree:
teaching of the subject:	
Ágnes Alberti	associate professor, Ph.D.
Eszter Riethmüller	assistant professor, Ph.D.
Orsolya Csernák	assistant professor, Ph.D.
Ida Fejős	assistant professor, Ph.D.
Csenge Anna Felegyi-Tóth	assistant lecturer, Ph.D.
Nóra Gampe	assistant professor, Ph.D.
Class per week:	Credit point(s):

Professional content, intent of acquirement and its function in order to implement the goals of the program:

2 credits

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.

Short description of the subject:

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.

Course data								
Recommend ed term	Contact hours (lecture)	Contact hours (practice)	Contact hours (seminar)	Individu al lectures	Total number of contact hours/sem ester	Normal course offer	Consult ations	
8th semester	28	-	-	-	28	Autumn semester* Spring semester Both semesters (**Please* underline*)		

Program of semester**

Topics of theoretical classes (pro week):

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

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, (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*/<u>semi-final</u>*/final* (* Please underline)

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

During the semi-final, students draw a theoretical topic and a case study. During the presentation of the theoretical topic and the associated herbal drugs, the following points should be addressed: drug English name, Latin name, main active substances/contents, mode of action (if known), side effects, interactions, contraindications, dosage.

During the discussion of the case study, all relevant information shall be provided on the composition, route of administration, posology, duration of administration, expected side effects, possible interactions and contra-indications of the herbal preparations proposed to treat the complaints described in the description.

Students have 30 minutes to prepare. Candidates receive separate grades for each topic, the average of which gives the semi-final grade. Each part shall be completed separately with at least satisfactory results.

Theoretical topics:

- 1. The place of phytotherapy in drug therapy, categorization and specificity of phytotherapeutic preparations
- 2. Proof of the effectiveness of phytotherapy, herbal monographs
- 3. Side effects of herbs, inadequate quality as a possible source of side effects
- 4. Demonstration of synergistic and antagonistic interactions of phytotherapeutics with examples. Drug interactions of phytotherapeutics
- 5. Herbs acting on the central nervous system
- 6. Herbs used to relieve the symptoms of upper respiratory tract diseases
- 7. Herbs used to treat cough
- 8. Herbs used in diseases of the gastrointestinal tract: appetite enhancers, antiemetics, stomachics, digestives, carminatives
- 9. Herbs used in diseases of the gastrointestinal tract: laxatives, constipatives
- 10. Herbs that can be used in the treatment of diseases of the hepatobiliary system
- 11. Herbs acting on the cardiovascular system; Herbs and metabolic syndrome
- 12. Herbs used in diseases of the genitourinary system
- 13. Herbal anti-inflammatories, herbs for use in musculoskeletal disorders
- 14. Herbs that can be used in diseases of the skin and oral mucosa
- 15. Herbs with immunomodulatory and adaptogenic effects

Form of the semester-end examination: written*/<u>oral</u>*/combinated 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. topic** The place of phytotherapy in drug therapy. Characteristics and development of phytotherapeutic products.
- **2. topic** Evidence of efficacy of phytotherapeutics, herbal monographs (EMA/HMPC, ESCOP, WHO, etc.).
- 3. topic Side effects and interactions of medicinal plants and their active ingredients
- 4. topic Side effects and interactions of medicinal plants and their active ingredients
- **5. topic** Herbs acting on the central nervous system:

St. John's wort, valerian root, lime flower, hop strobile, passionflower, lavander flower and oil, melissa leaf, California poppy

6. topic - Herbs used to relieve the symptoms of upper respiratory tract diseases

Herbs used to relieve runny nose, nasal congestion: peppermint oil, eucalyptus oil Herbs used to relieve sore throat: sage leaf, matricaria flower, Iceland moss, Ribwort plantain

Medicinal plants relieving the symptoms of cold: lime flower, elder flower, garlic

7. topic - Herbs used to relieve the symptoms of upper respiratory tract diseases

Herbs with antitussive effect: honey, Iceland moss, ribwort plantain, marshmallow root

Herbs with expectorant effect: ipecacuanha root, ivy leaf, primula root and flower, thyme, thyme oil, anise oil, peppermint oil

For the treatment of both dry and productive: ribwort plantain, ivy leaf

8. topic - Herbal products acting on the digestive tract I.

Herbs used in the treatment of loss of appetite: gentian root, white wormwood, white horehound, St. Benedicts thistle (holy thistle), centaury, peppermint leaf, peppermint oil, caraway, bitter fennel fruit / fruit oil

Herbs with antiemetic effect: ginger

Herbs with carminative effect: caraway fruit/fruit oil, bitter fennel fruit / fruit oil, peppermint leaves, peppermint oil

Antiulcer herbs: marshmallow leaf and root, mallow leaves and flower, licorice root, matricaria flower

9. topic - Herbal products acting on the digestive tract II.

Herbs containing dietary fiber: psyllium seed, ispaghula husk, linseed

Herbs with laxative action: castor oil, frangula bark, senna leaflets, senna pod, psyllium seeds and isphagula husks, linseed

Herbs that can be used in the treatment of diarrhea: agrimony, green tea, black tea

10. topic - Herbal products acting on the digestive tract I+II.

Herbs with cholagogue effect: artichoke leaves, St. benedict's (holy) thistle, turmeric rhizome

Herbs with hepatoprotective action: milk thistle fruit, licorice root

11. topic - Herbs and their preparations that act on the cardiovascular system. Herbs and metabolic syndrome.

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

Herbs and metabolic syndrome: phytosterols, garlic

12. topic - Phytotherapeutics for diseases of the urogenital system.

Herbs used in the treatment of urinary tract infections: bearberry leaf, cranberry, goldenrod, birch leaves, equisetum stem, Java tea, restharrow root, nettle leaf, dandelion root, burdock root, couchgrass rhizome, juniper berry, lovage

Herbs used to relieve the symptoms of benign prostatic hyperplasia: saw palmetto fruit, pumpkin seeds, pumpkin seed oil, nettle root, willow herb

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

Herbs that can be used to relieve menstruational complaints: agnus castus fruit, shepherd's purse

13. topic - Herbal anti-inflammatories and analgesics.

Hyperemic herbal preparations: peppermint oil, eucalyptus oil, rosemary oil, capsicum/capsicum extract, juniper oil

Analgesic herbs applied externally: comfrey root, mountain arnica flower

Analgesic herbs used internally: willow bark, devil's claw root, ash tree leaf, nettle leaves

Herbs for the treatment of headache: peppermint oil, capsaicin

14. topic - Herbs for skin and oral mucosa diseases.

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

Herbs that can be used in the treatment of skin infections: melissa leaf, greater celandine, 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

Plants for seborrheic complaints: wild pansy

15. topic - Herbs with immunomodulatory and adaptogenic effects

Herbs with immunomodulatory action: purple coneflower herb, geranium root, grapefruit

Herbs with adaptogenic effect: ginseng root, eleutherococcus, arctic 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

^{**} A tantárgy tematikáját oly módon kell meghatározni, hogy az lehetővé tegye más intézményben a kreditelismerési döntéshozatalt, tartalmazza a megszerzendő ismeretek, elsajátítandó alkalmazási (rész)készségek, (rész)kompetenciák és attitűdök leírását, reflektálva a szak képzési és kimeneti követelményeire.