

Course title:	Pharmacopoeial, herbal medicinal products: standardization and application
Course title in Polish:	Farmakopealne, roślinne produkty lecznicze: standaryzacja i zastosowanie
Course for discipline:	Agriculture and horticulture and other agricultural science disciplines

Semester:	6	Status of course:	faculty	Language:	english
Academic year:	2027/2028	Catalog number:	47/2025/26		

Coordinator of course:	Prof. dr hab. Katarzyna Bączek
Lecturer od course:	Scientific staff of the Department of Vegetable and Medicinal Plants at the Institute of Horticultural Sciences
Executing unit:	Department of Vegetable and Medicinal Plants
Ordering unit:	Doctoral School SGGW
Assumptions, goals and description of the course:	The aim of this course is to familiarize doctoral students with the latest requirements regarding the standardization, efficacy, and application of herbal medicinal products valid in the European Union. Students will be introduced to these requirements in accordance with the European Pharmacopoeia and monographs developed by the Committee on Herbal Medicinal Products (HMPC) of the European Medicines Agency (EMA). Primary plant raw materials (herbal substances) and the products thereof applied in official medicine, including veterinary medicine, will be presented and discussed. The forms in which these products are available, their performance, and applications will be shown. The course also includes a practical component, during which the doctoral students will be introduced to techniques for assessing the quality of selected herbal products.
Didactic form, number of hours:	15 hours
Teaching methods:	Presentation of issues and discussion, experience
Limit of people in the group:	14

Learning outcomes

KNOWLEDGE - the graduate knows and understands:	SKILLS - the graduate is able to:	COMPETENCES - the graduate is ready to:
To the extent enabling to revise the existing pradigms in the field/discipline - the world achievements, gathering theoretical background as well as general and selected detailed issues	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	Critically evaluate the achievements in the field/discipline represented
Major general development trends in the field/discipline		Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect
		Support the ethos of scientific circles and conduct independent research

The method of verification of learning outcomes:	Test
Form of documentation of achieved learning outcomes:	Test scorecards
Elements and weights of the final grade:	Test grade
Place of the course:	Classroom of the Department of Vegetable and Medicinal Plants, Institute of Horticultural Sciences equipped with microscopes, laboratory

Basic and supplementary literature

- EMA/HMPC/CHMP/CVMP/201116/2005. 2022. Guideline on quality of herbal medicinal products/traditional herbal medicinal products.
- Plon R., Graff A., Jalliffe G., Longer R., Williamson E. 2011. American Herbal Pharmacopoeia. Botanical Pharmacognosy. CRC Press.
- Mathe A. Medicinal and Aromatic Plants f the World. 2015. Springer.
- Eisher C. Materia Medica of Western Herbs.
- Mukherjee P.K. 2019. Quality control and evaluation of herbal drugs. Elsevier

Comments:	
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Estimated number of hours of work of the doctoral student necessary to achieve the assumed learning outcomes:	30
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Learning outcomes reference to the second degree characteristics of the National Qualification Framework (level 8) covering doctoral competences:

Symbol:	Learning outcomes:	8 level NQF
SD1_KW01	To the extent enabling to revise the existing pradigms in the field/discipline - the world achievements, gathering theoretical background as well as general and selected detailed issues	P8S_WG
SD1_KW02	Major general development trends in the field/discipline	P8S_WG
SD1_KU05	Carry out critical assessment of the scientific research findings and expert activities and their contribution to the knowledge development in the field/discipline	P8S_UW
SD1_KK01	Critically evaluate the achievements in the field/discipline represented	P8S_KK
SD1_KK03	Recognise knowledge in solving cognitive and practical problems characteristic for the area of research (field/discipline) and in an interdisciplinary aspect	P8S_KK
SD1_KK08	Support the ethos of scientific circles and conduct independent research	P8S_KR