



SZKOŁA GŁÓWNA
GOSPODARSTWA
WIEJSKIEGO

Medicinal and aromatic plants

Educational subject description sheet

Basic information

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| Field of study Course Offer for exchange students - second cycle studies, including uniform master studies (MA programmes) | | Didactic cycle 2024/25 |
| Speciality - | | Subject code PWMPWM2S_D.B100000.00784.24 |
| Organizational unit Course Offer for exchange students | | Lecture languages english |
| Study level second cycle studies, including uniform master studies (MA programmes) | | Mandatory Obligatory subjects |
| Study form full-time studies | | Block Major subjects |
| Education profile General academic | | Disciplines Agriculture and horticulture |
| Coordinator | Katarzyna Bączek | |
| Teacher | Katarzyna Bączek | |
| Period Winter semester | Examination Exam | Number of ECTS points 2 |
| | Activities and hours Lecture: 15 Laboratory exercises: 15 | |

Goals

| Code | Goal |
|------|--|
| C1 | to acquaint the students with diversity of medicinal and aromatic plants (MAPs) in respect of: the number of species, their origin and occurrence (habitat type), plant parts collected as herbal raw materials, requirements in cultivation, and application in various industries; to acquaint the students with biologically active compounds occurring in MAPs; to acquaint the students with factors influencing the quality of herbal raw materials; to acquaint the students with basic methods of identification and quality evaluation of herbal raw materials. |

Entry requirements

The student has knowledge on plant systematics, biology and chemistry.

Subject's learning outcomes

| Code | Outcomes in terms of | Effects | Examination methods |
|---|--|---------|--|
| Knowledge - Student knows and understands: | | | |
| W1 | the diversity of MAPs and herbal raw materials obtained from these plants and understand the factors influencing their development, cultivation and quality. | | Written exam, Test (written or computer based) |
| W2 | the groups of main biologically active compounds occurring in MAPs and understand the direction of their application. | | Written exam |
| W3 | basic methods of herbal raw materials evaluation and utilization and understand how to apply these methods. | | Written exam |
| Skills - Student can: | | | |
| U1 | identify the most important species of MAPs and raw materials obtained from these plants. | | Test (written or computer based) |
| U2 | carry out a preliminary evaluation of the quality of herbal raw materials. | | Assessment of activity during classes |
| U3 | produce seedlings of selected MAPs species, to start their cultivation and carry out basic treatments during the cultivation, to harvest herbal raw materials and properly prepare them for the use. | | Assessment of activity during classes |
| Social competences - Student is ready to: | | | |
| K1 | aware of the need to act in accordance with the principles of ethics in MAPs production. | | Assessment of activity during classes |

Study content

| No. | Course content | Subject's learning outcomes | Activities |
|-----|---|-----------------------------|-------------------------------|
| 1. | The occurrence, diversity and utilization of MAPs. The classification of herbal raw materials and products received from them. Biologically active constituents of herbal raw materials. Factors influencing the quality of herbal raw materials. Cultivation of medicinal and aromatic plants. Problems concerning introduction of wild growing medicinal plants into cultivation. | W1, W2, W3, U1, U2, U3, K1 | Lecture, Laboratory exercises |

Course advanced

| Activities | Methods of conducting classes |
|----------------------|---|
| Lecture | Lecture, Discussion |
| Laboratory exercises | Presentation, Laboratory (experiment), learning by experiment, Field observations |

| Activities | Examination method | Percentage |
|----------------------|---------------------------------------|------------|
| Lecture | Written exam | 50% |
| Laboratory exercises | Test (written or computer based) | 30% |
| Laboratory exercises | Assessment of activity during classes | 20% |

| Activities | Credit conditions |
|----------------------|---|
| Lecture | positive mark of the exam |
| Laboratory exercises | positive mark of the test and activity during classes |

Literature

Obligatory

1. Wichtl M. (Ed.) 2004. Herbal Drugs and Phytopharmaceuticals. CRC Press, Boca Raton, London, New York, Washington D.C.
2. Hamilton A.C. 2004. Medicinal plants, conservation and livelihoods. Biodiversity and Conservation 13: 1477-1517.
3. WHO guidelines on good agricultural and collection practices (GACP) for medicinal plants. WHO, Geneva 2003.

Optional

1. Mukherjee P.I. Quality control and evaluation of herbal drugs. Elsevier.
2. Opara E.I and Chohan M. Culinary herbs and spices. Royal Society of Chemistry

Calculation of ECTS points

| Activity form | Activity hours* |
|--------------------------|-----------------|
| Lecture | 15 |
| Laboratory exercises | 15 |
| Preparation for the exam | 10 |

| | |
|------------------------------|--------------------|
| Preparation for the test | 10 |
| Student workload | Hours 50 |
| Number of ECTS points | ECTS 2 |

* hour means 45 minutes