**SYLLABUS**

**regarding the qualification cycle 2023/2024 - 2025/2026**

*Academic year 2023/2024*

1. Basic Course/Module Information

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| --- | --- |
| Course/Module title | Forensic botany |
| Course/Module code \* |  |
| Faculty (name of the unit offering the field of study) | College of Natural Sciences |
| Name of the unit running the course | **Institute of Biology and Biotechnology** |
| Field of study | Biology |
| Qualification level  | I degree |
| Profile | general academic |
| Study mode | stationary |
| Year and semester of studies | year I, sem. 1 |
| Course type | Specialized course |
| Language of instruction | English |
| Coordinator | Prof. dr hab. Idalia Kasprzyk |
| Course instructor | Prof. dr hab. Idalia Kasprzyk |

\* - as agreed at the faculty

1.1.Learning format – number of hours and ECTS credits

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Semester(n0.) | Lectures | Classes | Colloquia | Lab classes | Seminars | Practical classes | Internships | others | **ECTS credits**  |
| 1 | 20 |  |  |  |  |  |  |  | 2 |

1.2. Course delivery methods

- conducted in a traditional way

- involving distance education methods and techniques

1.3. Course/Module assessment (an exam, pass with a grade, pass without a grade)

2. Prerequisites

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| Good communication, reading and writing English; knowledge of general botany and plant taxonomy and ecology |

3. Objectives, Learning Outcomes, Course Content, and Instructional Methods

3.1. Course/Module objectives

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| --- | --- |
| O1 | Indicating to the student those features of the morphology and anatomy of algae, plants, fungi, thanks to which they can be considered as scientific evidence in the judiciary. |
| O2 | Familiarizing the student with the method of collecting, transporting and storing plant material for the purposes of forensic science. |
| O3 | Presentation of examples of court cases in which plants, fungi, algae were used as evidence. |

3.2. Course/Module Learning Outcomes (to be completed by the coordinator)

|  |  |  |
| --- | --- | --- |
| Learning Outcome | The description of the learning outcome defined for the course/module | Relation to the degree programme outcomes |
| LO\_01 | The student indicates micro and macro remains with potential use in forensic. | K\_W1; K\_U9; |
| LO\_02 | The student can relate the quantitative and qualitative spectra of algae, fungi, spores and pollen grains with their place of occurrence. | K\_U3 |
| LO\_03 | The student is aware of the possibility of using plant material as scientific evidence in the judiciary. | K\_U10; K\_K01; K\_K02 |
| LO\_04 | The student understands the need of constantly study the literature of the subject. | K\_K01; K\_K02 |

**3.3. Course content**

1. Lectures

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| Content outline |
| Forensic botany as an interdisciplinary science. |
| Evidence potential of algae, macro- and micro-remains of plants and fungi. |
| The use of knowledge in the field of plant physiology and ecology in determining the place and time of the crime event. |
| Descriptions of court cases when botanical evidences were used |

1. Classes, tutorials/seminars, colloquia, laboratories, practical classes

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| Content outline  |
| Sampling materials for forensic investigations |
| Identification of pollen grains and fungal spores for forensic purpose |
| Identification of plants based on their fragments |
| The spectrum of diatoms from various types of water bodies. |

3.4. Methods of Instruction

e.g.

*Lecture: a problem-solving lecture/a lecture supported by a multimedia presentation/ distance learning*

*Classes: text analysis and discussion/project work (research project, implementation project, practical project)/ group work (problem solving, case study, discussion)/didactic games/ distance learning*

*Laboratory classes: designing and conducting experiments*

Lecture: Audio/video presentations.

Classes: practical laboratory work, discussion

4. Assessment techniques and criteria

4.1 Methods of evaluating learning outcomes

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| --- | --- | --- |
| Learning outcome | Methods of assessment of learning outcomes (e.g. test, oral exam, written exam, project, report, observation during classes) | Learning format (lectures, classes,…) |
| LO-01-02 | A written test, observations during classes. | Classes, lectures |
| LO-o3-04 | A written test, observations during classes, presentation. | Classes |

4.2 Course assessment criteria

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| Attendance is expected in all lectures, indoor workshops.Assessment for this course is carried out in many different ways. It takes into consideration both knowledge of the lecture but also critical thinking skills, technical skills, communication skills and collaborative skills. |

5. Total student workload needed to achieve the intended learning outcomes

– number of hours and ECTS credits

|  |  |
| --- | --- |
| Activity | Number of hours |
| Scheduled course contact hours | 20 |
| Other contact hours involving the teacher (consultation hours, examinations) | 10 |
| Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.) | 20 |
| Total number of hours | 50 |
| Total number of ECTS credits | 2 |

\* One ECTS point corresponds to 25-30 hours of total student workload

6. Internships related to the course/module

|  |  |
| --- | --- |
| Number of hours | n.a. |
| Internship regulations and procedures | n.a. |

7. Instructional materials

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| Compulsory literature:* I. Kasprzyk, 2023. Forensic botany: who?, how?, where?, when? Science & Justice 63: 258-275
 |
| Complementary literature: * Verma K. 2013. Role of diatoms in the world of forensic science. J. Forensic Res. 4:2
* P.E.J. Wiltshire, 2016. Forensic ecology, botany, and palynology. Forensic Sci Sem. 6: 32–42.
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Approved by the Head of the Department or an authorised person