

## Subject card

|                                             |                                                                                                                                                                                                                                                                                                                        |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|
| Subject name and code                       | General entomology, PG_00146611                                                                                                                                                                                                                                                                                        |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
| Field of study                              | Biology                                                                                                                                                                                                                                                                                                                |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
| Date of commencement of studies             | October 2025                                                                                                                                                                                                                                                                                                           |                                                          | Academic year of realisation of subject                                                                                                                               |                                     | 2026/2027                                                                                                                                      |            |     |
| Education level                             | Master's studies                                                                                                                                                                                                                                                                                                       |                                                          | Subject group                                                                                                                                                         |                                     | Obligatory subject group in the field of study<br>Optional subject group<br>Subject group related to scientific research in the field of study |            |     |
| Mode of study                               | full-time studies                                                                                                                                                                                                                                                                                                      |                                                          | Mode of delivery                                                                                                                                                      |                                     | at the university                                                                                                                              |            |     |
| Year of study                               | 2                                                                                                                                                                                                                                                                                                                      |                                                          | Language of instruction                                                                                                                                               |                                     | Polish                                                                                                                                         |            |     |
| Semester of study                           | 3                                                                                                                                                                                                                                                                                                                      |                                                          | ECTS credits                                                                                                                                                          |                                     | 1.0                                                                                                                                            |            |     |
| Learning profile                            | academic                                                                                                                                                                                                                                                                                                               |                                                          | Assessment form                                                                                                                                                       |                                     | credit                                                                                                                                         |            |     |
| Conducting unit                             | Laboratory of Systematic Zoology -> Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector                                                                                                                                                                                                      |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor                                                                                                                                                                                                                                                                                                     |                                                          | dr hab. Wojciech Gilka                                                                                                                                                |                                     |                                                                                                                                                |            |     |
|                                             | Teachers                                                                                                                                                                                                                                                                                                               |                                                          | dr hab. Wojciech Gilka                                                                                                                                                |                                     |                                                                                                                                                |            |     |
| Lesson types                                | Lesson type                                                                                                                                                                                                                                                                                                            | Lecture                                                  | Tutorial                                                                                                                                                              | Laboratory                          | Project                                                                                                                                        | Seminar    | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                  | 0.0                                                      | 15.0                                                                                                                                                                  | 0.0                                 | 0.0                                                                                                                                            | 0.0        | 15  |
|                                             | E-learning hours included: 0.0                                                                                                                                                                                                                                                                                         |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
| Learning activity and number of study hours | Learning activity                                                                                                                                                                                                                                                                                                      | Participation in didactic classes included in study plan |                                                                                                                                                                       | Participation in consultation hours |                                                                                                                                                | Self-study | SUM |
|                                             | Number of study hours                                                                                                                                                                                                                                                                                                  | 15                                                       |                                                                                                                                                                       | 3.0                                 |                                                                                                                                                | 7.0        | 25  |
| Subject objectives                          | Knowledge of:<br><br><ul style="list-style-type: none"><li>• basic functional anatomy and morphology of insects;</li><li>• more important taxa;</li><li>• mastery of terminology needed when using scientific entomological literature;</li><li>• issues of taxonomic evolution and biodiversity of insects.</li></ul> |                                                          |                                                                                                                                                                       |                                     |                                                                                                                                                |            |     |
| Learning outcomes                           | Course outcome                                                                                                                                                                                                                                                                                                         |                                                          | Subject outcome                                                                                                                                                       |                                     | Method of verification                                                                                                                         |            |     |
|                                             | [BIOLMU2_W04] the graduate has an in-depth knowledge of the chosen specialisation in the biological sciences                                                                                                                                                                                                           |                                                          | has an in-depth knowledge of insects                                                                                                                                  |                                     | [SW1] oral statement/conversation/discussion<br>[SW2] presentation/project/paper/report                                                        |            |     |
|                                             | [BIOLMU2_W05] the graduate understands the dynamic development of the biological sciences and is familiar with new research directions and disciplines                                                                                                                                                                 |                                                          | Recognizes the dynamic development of biological sciences and the emergence of new directions and disciplines of research                                             |                                     | [SW1] oral statement/conversation/discussion<br>[SW2] presentation/project/paper/report                                                        |            |     |
|                                             | [BIOLMU2_U02] the graduate is able to make proficient use of the scientific literature of the biological speciality studied                                                                                                                                                                                            |                                                          | Follows current news in entomology                                                                                                                                    |                                     | [SU1] oral statement/conversation/discussion                                                                                                   |            |     |
|                                             | [BIOLMU2_W01] the graduate has an in-depth knowledge and understanding of natural phenomena and processes at different levels of complexity                                                                                                                                                                            |                                                          | Can demonstrate the relationship between morphological and anatomical structure insects and the functioning of the organism and the relationship with the environment |                                     | [SW1] oral statement/conversation/discussion<br>[SW2] presentation/project/paper/report                                                        |            |     |

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|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Subject contents                                               | Classification and evolution of insects.<br>Names of the more important taxa.<br>Functional morphology of the head; modifications of the mouth apparatus in relation to the type of food taken.<br>Functional morphology of the thorax.<br>Sensory organs.<br>The digestive and circulatory systems.<br>Movement of insects (walking, running, crawling, jumping, swimming, flying).<br>Respiration in terrestrial and aquatic environments.<br>Insect biodiversity and its conservation. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |
| Prerequisites and co-requisites                                | Basic knowledge of invertebrate zoology                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |
| Assessment methods and criteria                                | Subject passing criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Passing threshold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Percentage of the final grade |
|                                                                | multimedia presentation made by the student                                                                                                                                                                                                                                                                                                                                                                                                                                               | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 80.0%                         |
|                                                                | activity during classes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 51.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20.0%                         |
| Recommended reading                                            | Basic literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bej-Bienko G.J. 1976. Zarys entomologii. PWRiL, Warszawa.<br>Blaszak Cz. (red.) 2012. Zoologia. Stawonogi tom 2, część 2, PWN, Warszawa.<br>Beutel R.G. (ed.) 2014. Insect morphology and phylogeny. De Gruyter. Berlin/Boston.<br>Chapman R.F. 2007. The Insects. Structure and function. Cambridge Univ. Press., Cambridge, UK.<br>Grimaldi D., Engel M.S. 2005. Evolution of the insects. Cambridge Univ. Press., Cambridge, UK.<br>Jura C. (red.) 1988. Biologia rozwoju owadów. PWN, Warszawa.<br>Razowski J. 1987. Słownik entomologiczny. PWN, Warszawa.<br>Razowski J. 1996. Słownik morfologii owadów. PWN, Warszawa-Kraków.<br>Szujewski A. 1998. Entomologia leśna. T. I. Wyd. SGGW Warszawa.<br>Wilkaniec B. (red.) 2009. Entomologia. Część 1 - entomologia ogólna. PWRiL Warszawa.<br>Wilkaniec B. (red.) 2011. Entomologia. Część 2 - entomologia szczegółowa. PWRiL Warszawa |                               |
|                                                                | Supplementary literature                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Giłka W. 2011. Non-biting midges - Chironomidae, tribe Tanytarsini, adult males. Keys for the Identification of Polish Insects. Nr 177 serii kluczy. Część XXVIII, Muchówki - Diptera, zeszyt 14b. Polskie Towarzystwo Entomologiczne. Biologica Silesiae, Wrocław, 95 str.<br>Giłka W. 2005. Morphological deformations of adult non-biting midges (Diptera: Chironomidae) as a result of parasitic activity. Dipteron, Bulletin of the Dipterological Section of the Polish Entomological Society 21: 9-11.<br>Soszyńska-Maj A., Paasivirta L., Giłka W. 2016. Why on the snow? Winter emergence strategies of snow-active Chironomidae (Diptera) in Poland. Insect Science 23(5): 754-770.                                                                                                                                                                                                |                               |
|                                                                | eResources addresses                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |
| Example issues/<br>example questions/<br>tasks being completed |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |
| Work placement                                                 | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |

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