SZKOŁA GŁÓWNA GOSPODARSTWA WIEJSKIEGO

Insect behaviour – from mechanisms to practical issues

Educational subject description sheet

Basic information

Field of study
Course Offer for exchange students - second cycle studies, including uniform master studies (MA programmes)

Speciality
-

Organizational unit
Course Offer for exchange students

Study level
second cycle studies, including uniform master studies (MA programmes)

Study form
full-time studies

Education profile
General academic

Didactic cycle
2024/25

Subject code
PWMPWM2S_D.B100000O.00793.24

Lecture languages
english

Mandatory
Elective subjects

Block
General subjects

Disciplines

Coordinator	Katarzyna Michalska
Teacher	Katarzyna Michalska

Period	**Examination**	**Number of ECTS points**
Winter semester	Exam **Activities and hours** Lecture: 15	1

Goals

Code	Goal
C1	To acquaint students with the basic mechanisms and functions of insect behaviour. As a part of the course, the newest investigations on communication, learning and cognition in insects as well as the applied aspects of insect behaviour are presented.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	the basic mechanisms and functions of insect behaviour and their applied significance		Written exam, Report
W2	basics of ethology and behavioural ecology		Written exam, Report
Skills – Student can:			
U1	to write a report and multimedia presentation referring investigations on insect behaviour		Report
U2	use the professional sources of information in the printed and electronic form		Written exam, Report
Social competences – Student is ready to:			
K1	new solutions in plant protection		Written exam, Report
K2	be responsible for the condition of the environment		Written exam, Report

Study content

No.	Course content	Subject's learning outcomes	Activities
1.	molecular, neuronal and hormonal control of insect behaviour- communication and the role of visual, chemical and acoustic signals- mechanisms of mate–finding and host-plant finding/selection - mechanisms of prey-finding &defence - learning and cognition- insect sociality- the effect of environmental pollution on the behaviour of pollinating insects - behavioural manipulation methods for insect pests management	W1, W2, U1, U2, K1, K2	Lecture

Course advanced

Activities	Methods of conducting classes
Lecture	Lecture, Case study, Discussion

Activities	Examination method	Percentage
Lecture	Written exam	80%
Lecture	Report	20%

Activities	Credit conditions
Lecture	Written exam is in the form of a test plus open questions. Before exam students must prepare and provide the lecturer with a report in paper form and on a CD.

Literature

Obligatory

1. A. Cordoba-Aguilar, D. Gonzales -Tokman, I. Gonzales -Santoyo. Insect Behaviour, Oxford University Press, 2018 2.
2. Matthews, R.W. Matthews, JR. Insect behaviour. 2010. Springer
3. Chapman R.F. The Insects: Structure and Function. 5th ed, 2013, Cambridge Univ. Press

Optional

1. E. O. Wilson. The insect societies. 1971. Belknap Press of Harvard Univ.
2. K. Preston-Mafham, R. Preston-Mafham. The Encyclopedia of Land Invertebrate Behaviour. 1991. Blabdford
3. Agarwal M.L. Perspectives in insect behaviour, 2010
4. J. Alcock. Animal behaviour: an evolutionary approach. 1993, Sinauer Associates
5. J.R. Krebs, N.B. Davies, S.A. West. An introduction to behavioral ecology . 4th ed., 2012, Wiley-Blackwell Publishing

Calculation of ECTS points

Activity form	**Activity hours***
Lecture	15
Preparation of the report	5
Preparation for the exam	10
Student workload	**Hours** 30
Number of ECTS points	**ECTS** 1

* hour means 45 minutes