



## 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.B1000000.00793.24 Lecture languages english Mandatory Elective subjects Block General subjects Disciplines	
Coordinator	Katarzyna Michalska		
Teacher	Katarzyna Michalska		
<b>Period</b> Winter semester	Examination Exam Activities and hours		Number of ECTS points 1

#### Goals

Lecture: 15

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
К2	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	
Activities		Fercentage	
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