

## MODULE INFORMATION SHEET

<b>Name of Module Unit</b>	<b>Ecotoxicology</b>
Name in polish language	Ekotoksykologia
Module type	Elective
Form of studying	full-time day courses
Level of study	undergraduate course (B.Sc. level)
Type of study ( for extra-mural courses)	-
Programme	Environmental Engineering
Speciality	Environmental Engineering
Responsible department	Department of Biology
Responsible person	Prof. Monika Załęska-Radziwiłł D.Sc., Ph.D.

Semester	Lectures(E)	Tutorials	Laboratory	Computer Exercises	Projects	ECTS
7	15		30			3

### Objectives (summary)

The aim of the course is the presentation of methods of assessment of the wastewater toxicity, factors influencing the toxicity of substances, wastewater toxicity classification and evaluation of the ecological risk

### Prerequisites

Biology and Ecology  
Environmental Biology

### Rules of integrated grade setting

Integrated grade = 0,5 \* Lectures grade + 0,5 \* Laboratory grade

### Recommended readings

Hoffman D.J., Rattner B.A., Burton G.A.Jr., Cairns J., Jr.," Handbook of Ecotoxicology"  
Second Edition, CRC Press, 2002.  
Newman M.C. "Fundamentals of Ecotoxicology" Second Edition, CRC Press, 2002.

## Contents of lectures (syllabus)

	Topics	Time (hrs.)	Scope (S / Ex)
1	Influence of the industrial wastewater on ecosystems. Parameters influencing the toxicity of substances.	4	
2	Presentation of methods of assessment of the wastewater toxicity. Types of toxicological tests.	6	
3	Recognition of permissible concentration of substances. Ecological risk evaluation.	3	
4	Classification of the wastewater toxicity (US EPA and UE).	1	
5	Achievement test – exam	1	
<b>Total</b>		<b>15</b>	<b>hours</b>

S – topics listed in the legal study programme standards from 12.07.2007

Ex – extended topics

### Lecturers

Prof. Monika Załęska-Radziwiłł D.Sc., Ph.D., Katarzyna Affek, Ph. D.
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### Assessment method

Written test
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## Contents of laboratory

	Topics	Time (hrs.)	Scope (S / Ex)
1	The assessment of the toxic impact of wastewater compounds on water organisms. Survival, growth, enzymatic, genotoxicity and bioaccumulation tests.	16	
2	Determination of the permissible concentration of xenobiotics in the environment	4	
3	Evaluation of the wastewater toxicity basing on EU and EPA standards. Ecological risk assessment	6	
4	Achievement test	4	
<b>Total</b>		<b>30</b>	<b>hours</b>

S – topics listed in the legal study programme standards from 12.07.2007

Ex – extended topics

### Persons responsible for laboratory

Katarzyna Affek , Ph. D.
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### Assessment method for laboratory

Participation in laboratory, reports, two written tests
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