

Code	IV.1.
Course Title (English)	Biology, Ecology and Environmental Protection III
Course Title (Polish)	Biologia, ekologia i ochrona środowiska III
Credits	3 ECTS

Language of instruction **English**

Compulsory for Profile: Computer Modelling and Simulation (CMS), Intelligent Energy (IE), Biotechnology for Environmental Protection (BI), Business and Technology (BT)

Type of studies BSc studies

Unit running the programme Faculty of Environmental Protection and Engineering
Institute of Environmental Engineering

Course coordinator and academic teachers **Magdalena Zabochnicka-Świątek, PhD**
Magdalena Zabochnicka-Świątek, PhD

Form of classes and number of hours

Semester	Lec.	Tut.	Lab.	Proj.	Sem.	Credit points
IV	15E	30				3

Learning outcomes

The importance of environmental protection. Ecological knowledge and environmental problem solving

Prerequisites (courses)

Prerequisites

Biology, Ecology and Environmental Protection I and II.

The knowledge of basic biological principles common to all living things.

The knowledge of basic ecological principles.

Course description

LECTURES:

History of environmental protection. Anthropopression. Strategies and aims of nature preservation. Sustainability development. The environmental protection of biosphere, ecosystem, biocenose and biodiversity. Ecological equilibrium. Environment Protection Act. Pollution impact on human health. Toxicology – emission, clasification and toxicity of hazardous compounds. Radioactivity. Elimination of toxins from the body. Clean technologies.

TUTORIALS:

Protection of atmosphere – global warming, ozone depletion, acid rain, acidic and

photochemical smog. Protection of hydrosphere – contaminated water and eutrophication. Protection of lithosphere. Contaminated soil. Protection of forest.

Form of assessment Exam

Basic reference materials

1. J. Sutton: "Biology", Macmillan Publishing Company, 2007.
2. Alloway & Ayres: "Chemical Principles of Environmental Pollution", Blackie Academic & Professional, 1997.
3. Dictionary of Environment and Ecology, Bloomsbury, 2004.
4. Laird S.: "Biodiversity & Traditional Knowledge". Earthscan 2001.
5. Bochniarz Z.: "Environment & Sustainable Development in the New Central Eur.". Berghahn Books Ltd. 2006.
6. Farmer A.: "Handbook of Environmental Protection & Enforcement". Earthscan 2007.

Other reference materials

For Polish-speaking students:

1. Hafner M.: „Ochrona środowiska”. Polski Klub Ekologiczny, Kraków, 1993.
2. Jastrzębski L.: „Ochrona prawna przyrody i środowiska w Polsce”, wyd. Uniw. Warszawskiego, Warszawa, 1976.
3. Dz.U. 2001 nr 62 poz. 627, Ustawa z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska.
4. Szafer W.: „Ochrona środowiska przyrodniczego człowieka” PWN Warszawa, 1974.
5. Mannion A.M.: „Zmiany środowiska Ziemi. Historia środowiska przyrodniczego i kulturowego”. PWN Warszawa, 1999.
7. Lewandowski W.M.: „Proekologiczne źródła energii odnawialnej”. WNT Warszawa, 2002.

e-mail of the course coordinator and academic teachers	mzabochnicka@is.pcz.czest.pl
Average student workload (teaching hours + individ.)	3 teaching hours + 3 hours of individual work per week.
Remarks:	
Updated on:	04.04.2012