

Faculty of Geoengineering

Course title: ENVIRONMENTAL STATISTICS

ECTS credit allocation (and other scores): 1.5

Semester: spring

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Natural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: Prof. Paweł Brzuzan, Department of Environmental Biotechnology;

brzuzan@uwm.edu.pl

Type of classes: classes

Substantive content

CLASSES: The role of statistics in environmental science. Environmental sampling. Models from data. Drawing conclusions from data. Environmental monitoring. Impact assessment, Assessing site reclamation. Risk assessment.

Learning purpose: to know about the ideas of random variation, statistical distributions, tests of significance. to use the statistical methods that are useful in the work of environmental scientists.

On completion of the study programme the graduate will gain:

Knowledge: about statistical methods that will be useful for environmental scientists and managers in their work Skills: practical tips to gather and analyze data

Social Competencies: sharing the knowledge and skills with communities with regard to the importance of appropriate handling of data and the use of statistical methods in various environmental contexts.

Basic literature:

Manly, B.F. J., Statsitics for environmental science and management. 2nd ed., Chapman and Hall/CRC, 2010 Walker C. H., Hopkin S. P., Sibly R. M., Peakall B., Principles of Ecotoxicology, Third Edition, CRC Press., 2005

Supplementary literature:

Any handbook of Statistics

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 1.28

Student's independent work: 0.72