Faculty of Geoengineering

Course title: ENVIRONMENTAL MONITORING

ECTS credit allocation (and other scores): 1.5

Semester: spring

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

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: Dr. Habil. Eng. Mariusz Gusiatin, Associate Professor; mariusz.gusiatin@uwm.edu.pl

Type of classes: classes

Substantive content

CLASSES: laboratory classes concerning determination of selected chemical indicators in water and wastewater; metal concentration in samples soil by flame atomic absorption spectrometry (FAAS); polycyclic aromatic hydrocarbons in liquid and solid samples using techniques for the extraction of solid phase samples and high performance liquid chromatography; surfactant properties using tensiometer.

Learning purpose: ability to perform calculations chemical, knowledge of the principles of work in chemical laboratory

On completion of the study programme the graduate will gain:

Knowledge: ability to perform calculations chemical, knowledge of the principles of work in chemical laboratory

Skills: apply the principles of monitoring as an integral part of environmental protection and management, planning of measurements, selection of methods to produce monitoring data and interpretation of the results obtained, evaluation of the quality of environmental components

Social Competencies: communicating principles to society about the sustainable use of the environment and the role of environmental technology in protecting natural resources

Basic literature: Standard Methods for the Examination of Water and Wastewater, 18th ed, Association, Washington; Environmental monitoring - laboratory handbook

Supplementary literature: ---

The allocated number of ECTS points consists of:

Contact hours with an academic teacher: participation in laboratory classes, consultation (27 h)

Student's independent work: preparation for lab classes and final test, report writing (10 h)