Poznan University of Technology
Faculty of Civil and Environmental Engineering

European Credit Transfer System
Course description card

Course title: **Engineering Surveying**	Code: **ErS5**
Field of study: Environmental Engineering	Year / semester: III
Specjality:	Course: compulsory
Hours / week: Lectures: 1 Tutorials: 0,5 Laboratories: 0 Project / Seminars: 0	Number of credits: **6**

Lecturer: Dr Ireneusz Wyczalek.
Tel. +48 61 665 2900, +48 61 665 2438
e-mail: ireneusz.wyczalek@put.poznan.pl

Institute / Faculty: Institute of Civil Engineering,
Faculty of Civil and Environmental Engineering,
ul. Piotrowo 3a, 60 965 Poznań
tel. +48 61 665 2438, fax +48 61 665 2439
e-mail: office_ee@put.poznan.pl

Status of the course in the study program:
Core course for students of Environmental Engineering

Course description:
Understanding the direct and indirect methods of acquisition of spatial data, using maps as data source; knowing abilities of utilizing cartographic data; the ability to analyze the data contained in GIS databases; learn basic surveying skills (distance and angle measurement, leveling, coordinate calculations); the ability to setting-out and making diagnostic and control surveys.

Teaching outcomes:
Within lectures and exercises the student obtains knowledge and learns opportunities to perform the following activities: (1) Geodetic spatial data sources; (2) Map as a data source; (3) Indirect methods of data collection; (4) Elaboration of remote sensing data; (5) Numerical terrain modeling; (6) Setting-out points and curves; (7) Diagnostic and control surveys of selected structures.

Prerequisites:
Fundamentals of surveying, knowledge of general lower.

Teaching method:
Lectures (multimedia projector);
Tutorials – blackboard case study calculations.

Assessment method:
Written test, homeworks, measurement and computing operational reports.

Bibliography:

1. Principles of Geospatial Surveying, Arthur L. Allan (Ed.), Whittles Publishing, ISBN 978-1420073461, 2008.
2. Surveying for Engineers, Uren J., Price B., Palgrave Macmillan. ISBN 978-0-230-22157-4, 2010.
3. Newest Internet-base publications.