FACULTY: ENVIRONMENTAL ENGINEERING

COURSE TITLE: Data analysis and statistics

Number of contact hours: 30

Duration: 1 semester (spring)

ECTS credits: 3

Programme description: The program includes a course of basic data analysis methods along with practical exercises of their application. Practical exercises will be conducted in the language of statistical calculations R. The R language environment is freely available under the GNU General Public License.

Specific problems discussed during lectures, workshops and seminars will cover: basic concepts of mathematical statistics; methods of graphical presentation of data; data differentiation by cluster analysis; normality tests of data distributions; location tests; studying relationships between data series.

Students will gain: basic knowledge about statistical methods of data analysis; the ability to use the R environment in data analysis.

Course type (hours): lectures (9), workshops (21)

Literature:

Statistical Analysis: an Introduction using R, https://en.wikibooks.org/wiki/Statistical_Analysis:_an_Introduction_using_R

R Programming, https://en.wikibooks.org/wiki/R_Programming

or other freely available on-line courses.

Assessment method: computer laboratory

Lecturer: Marek Kubala

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