Poznan University of Technology

Faculty of Civil and Environmental Engineering

European **C**redit **T**ransfer **S**ystem

Title **(Metody obliczeniowe)**	Code **1010101121010120028**
Field **Civil Engineering First-cycle Studies**	Year / Semester **1 / 2**
Specialty **-**	Course **core**
Hours Lectures: **1** Classes: **-** Laboratory: **1** Projects / seminars: **-**	Number of credits **1**
	Language **polish**

Lecturer:

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Faculty:

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Status of the course in the study program:

> Basic course

Assumptions and objectives of the course:

> Familiarity with basic numerical methods and algorithms applied in engineering problems. Some practice and experience in programming and numerical computations

Contents of the course (course description):

> Computational methods of basic numerical problems such as solving of linear systems and nonlinear equations, numerical integration and differentiation, solving of approximation and interpolation problems, finding solutions of optimisation problems are presented, application of Monte Carlo methods. Ideas on some algorithms of numerical problems are discussed and used to creating computational applications

Introductory courses and the required pre-knowledge:

> Basic knowledge on linear algebra, mathematical analysis and probability theory. Some experience in using of Linux operating system and programming using scientific software package Scilab

Courses form and teaching methods:

> Lectures, computer laboratories

Form and terms of complete the course - requirements and assessment methods:

> Test, practical examination, individual projects

Basic Bibliography:

Additional Bibliography: