

Title Numerical Methods in Physic and Technology (MNwFiT)	Code 1010402211010410669
Field TECHNICAL PHYSICS	Year / Semester 1 / 1
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 2 Projects / seminars: -	Number of credits 3
	Language polish

Lecturer:

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Status of the course in the study program:

Core course of the study for Technical Physics, Faculty of Technical Physics.

Assumptions and objectives of the course:

Acquainting students with the structure and logic of the algorithms of some basic numerical methods used in physics. Development of the intuitive understanding of their functioning.

Contents of the course (course description):

Presentation of the basic numerical methods used in solving problems of physics, in particular the methods of numerical integration of the differential equations.

Introductory courses and the required pre-knowledge:

Basic knowledge of calculus and physics at the level reached after the bachelor studies. The skill of writing programs in C.

Courses form and teaching methods:

Lectures performed with the use of the multimedial techniques presenting basic numerical methods used in physics and their application for solving of problems appearing in various fields of physics. Exercises in the computer laboratory during which students write their own implementations of chosen algorithms. Work with individual students.

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

Written examination as a basic test of knowledge gained at the end of lectures. Presentation of the computer programs developed by students.

Basic Bibliography:

1. Pang Tao ?Metody obliczeniowe w fizyce?, PWN.

Additional Bibliography:

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