

Title <b>Informatics and Programming</b>	Code <b>1010134221010510394</b>
Field <b>Environmental Engineering Extramural First-cycle studies</b>	Year / Semester <b>1 / 2</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: <b>1</b> Projects / seminars: -	Number of credits <b>4</b>
	Language <b>polish</b>

**Lecturer:**

Mariusz Nowak, Ph.D., Assistant Professor  
Institute of Computing Science  
Poznań University of Technology  
Piotrowo 2, 60-965 Poznań, Poland  
tel. (061) 665-2921, fax. (061) 877-1525  
e-mail: Mariusz.Nowak@put.poznan.pl

**Faculty:**

Faculty of Civil and Environmental Engineering  
ul. Piotrowo 5  
60-965 Poznań  
tel. (061) 665-2413, fax. (061) 665-2444  
e-mail: office\_dceef@put.poznan.pl

**Status of the course in the study program:**

Basic course.

**Assumptions and objectives of the course:**

Students should obtain knowledge of theoretical and practical problems of IT systems in the context of applications in environmental engineering.

**Contents of the course (course description):**

The course lecture contains the following topics: The text editors, graphic programmers, the spreadsheet, multimedia programs, Flash development environment. Programming language for microcomputers. Programming in Pascal, Visual-Basic, C. Logical operators. Functions and variables. Character strings and arrays. Indexes. Numerical calculations. Computational complexity. Bases of databases. Relational and object databases. Applications of databases. Tools for the design and services of databases. Environmental databases.

**Introductory courses and the required pre-knowledge:**

The knowledge of lectures and laboratory from the scope of the first semester.

**Courses form and teaching methods:**

Lectures and laboratories.

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

Written test, tests in computer laboratory.

**Basic Bibliography:**

**Additional Bibliography:**