STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Introduction to Computer Science**		Code **1010604211010631274**
Field of study **Transport**	Profile of study (general academic, practical) **(brak)**	Year /Semester **1 / 1**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **part-time**	

No. of hours				No. of credits
Lecture: **15** Classes: **-** Laboratory: **-** Project/seminars: **-**				**1**

Status of the course in the study program (Basic, major, other) **(brak)**	(university-wide, from another field) **(brak)**

Education areas and fields of science and art **technical sciences**	ECTS distribution (number and %**)** **1 100%**

Responsible for subject / lecturer:

dr hab. inż. Andrzej Frąckowiak
email: andrzej.frackowiak@put.poznan.pl
tel. 61 6652779
Faculty of Working Machines and Transportation
Poznań, Piotrowo 3A

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student possesses basic knowledge of the construction of computer, operating system and the Internet.
2	**Skills**	The student is able to use the software for office work (word processor, spreadsheet), and the internet. The student is able to deal with specific problems that arise when using the computer.
3	**Social competencies**	Students can cooperate in a group, taking the different roles. The student is able to define priorities in solving the tasks posed before her/him. The student shows self-reliance in solving problems, acquiring and improving her/his knowledge and skills.

Assumptions and objectives of the course:

-The aim of the course is to provide students with information concerning the construction of computer, operating systems, and use of the Internet and selected software. Students gain knowledge and skills to: create documents in a word processor, perform calculations using a spreadsheet and create multimedia presentations, learn the principles of web designing and development environment for scientific and technical calculations.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Has a basic knowledge in the field of informatics, is familiar with operating systems, programming languages at a basic level, information technology, multimedia technology, graphics, animation, databases, computer methods to support the preparation of reports and presentations. - [K1A_W06]

Skills:

1. Is able to obtain information from the literature, internet, databases and other sources in Polish and English. Can integrate the information to interpret and learn from them, create and justify opinions. - [K1A_U01]

2. Has the ability to self-educate using modern teaching tools such as remote lectures, webpages and databases, educational software, electronic editions. - [K1A_U06]

3. Is able to use in practice office suites for solving tasks and editing technical texts, including formulas and tables, technical and economic calculations using a spreadsheet and keeping a simple relational database. - [K1A_U17]

Social competencies:

1. Understands the need and knows the possibilities of lifelong learning, knows the need for acquiring new knowledge for professional development. - [K1A_K01]

2. Is able to think and act in an entrepreneurial manner, make decisions, work for the development of the employer and the society. - [K1A_K07]

3. Is aware of the transfer of knowledge to society, takes steps to ensure that the information is understandable. - [K1A_K08]

Assessment methods of study outcomes

written exam of lectures

Course description

Construction of a computer. Operating Systems. Basic functions of a word processor. The text formatting, creating styles, paragraphs, headers and footers, use of the equation editor. Creating simple drawings, importing images from other graphics programs. Advanced text editor: the Mail Merge, creating bibliographies, reviewed text. Creating tables and graphs using a spreadsheet. The processing of numerical data, working with multiple spreadsheets. Creating a multimedia presentation in Power Point or similar. Creating web pages. Basics of HTML. Making scientific and engineering calculations, modeling, simulation and data analysis, graphical visualization of data and calculation results in one of the mathematical environments: Matlab, Mathematica, or Mathcad.

Basic bibliography:

1. Węglarz Waldemar, Żarowska-Mazur Alicja, Office 2010. Praktyczne porady , Wydawnictwo Naukowe PWN, 2011

2. Katherine Murray, Microsoft Office 2010 PL. Praktyczne podejście, Helion, 2011

3. Laura Lemay, HTML i XHTML dla każdego, Helion, 2004

4. Rudra Pratap, MATLAB 7 dla naukowców i inżynierów, Wydawnictwo Naukowe PWN, 2010

Additional bibliography:

1. Joan Lambert, Joyce Cox, Ourtis Frye, Microsoft Office 2010 Dla Użytkowników Domowych I Uczniów Krok Po Kroku, 2012

2. Bryan Pfaffenberger, Steven M. Schafer, Chuck White, Bill Karow, HTML, XHTML i CSS. Biblia, Helion 2005

Result of average student's workload

Activity	Time (working hours)
1. Participation in the lecture	15
2. Consolidation of the lecture content	5
3. Consultation	5
4. Preparation for the pass	10
5. Participation in the pass	1

Student's workload

Source of workload	hours	ECTS
Total workload	36	1
Contact hours	26	1
Practical activities	0	0