

## MODULE DESCRIPTION

Module code	<b>Z-0323</b>
Module name	<b>Technologie informacyjne</b>
Module name in English	<b>Information Technologies</b>
Valid from academic year	<b>2016/2017</b>

## A. MODULE PLACEMENT IN THE SYLLABUS

Field of study	<b>Management and Production Engineering</b>
Level of education	<b>1st degree</b> <i>(1st degree / 2nd degree)</i>
Studies profile	<b>General</b> <i>(general / practical)</i>
Form and method of conducting classes	<b>Full-time</b> <i>(full-time / part-time)</i>
Specialisation	<b>All</b>
Unit conducting the module	<b>The Department of Applied Computer Science and Applied Mathematics</b>
Module co-ordinator	<b>Jan Sztachman, PhD, Eng.</b>
Approved by:	

## B. MODULE OVERVIEW

Type of subject/group of subjects	<b>Major</b> <i>(basic / major / specialist subject / conjoint / other HES)</i>
Module status	<b>Compulsory</b> <i>(compulsory / non-compulsory)</i>
Language of conducting classes	<b>English</b>
Module placement in the syllabus - semester	<b>1st semester</b>
Subject realisation in the academic year	<b>Winter semester</b> <i>(winter semester/ summer)</i>
Initial requirements	<b>No requirements</b> <i>(module codes / module names)</i>
Examination	<b>No</b> <i>(yes / no)</i>
Number of ECTS credit points	<b>3</b>

<b>Method of conducting classes</b>	<b>Lecture</b>	<b>Classes</b>	<b>Laboratory</b>	<b>Project</b>	<b>Other</b>
<b>Per semester</b>			<b>24</b>		

### C. TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

<b>Module target</b>	The aim of the module is to prepare students to use a computer efficiently and correctly as well as to use office applications, particularly the spreadsheet. A student should also acquire skills as regards writing algorithms in the form of flow charts and creating simple websites.
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Effect symbol	Teaching results	Teaching methods (l/c/lab/p/other)	Reference to subject effects	Reference to effects of a field of study
W_01	A student is familiar with the possibilities of the Internet in terms of browsing and gathering information as well as databases.	lab	K_W04	T1A_W03 S1A_W06
W_02	A student knows the possibilities of applying a spreadsheet.	lab	K_W04	T1A_W03 S1A_W06
W_03	A student knows the elements of the HTML language (creating websites).	lab	K_W04	T1A_W03 S1A_W06
W_04	A student has basic knowledge as regards algorithmics.	lab	K_W05	T1A_W03 S1A_W06
U_01	Practical application of knowledge connected with information processing with the Excel spreadsheet.	lab	K_U02	TA1_U02
U_02	A student can do the following: acquire knowledge from the Internet, create a website with descriptions, tabular summaries, and a graphical presentation of a problem.	lab	K_U01 K_U02	TA1_U01 TA1_U02
U_03	A student can provide a graphical presentation of an algorithm of simple numerical calculations.	lab	K_U02	TA1_U02
K_02	A student is able to broaden and improve the acquired knowledge and skills from the field of computer studies.	lab	K_K05	T1A_K06

#### Teaching contents:

##### 1. Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module

##### 2. Teaching contents as regards classes

Class number	Teaching contents	Reference to teaching results for a module

##### 3. Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module
1	WINDOWS – desktop, application windows, folders and files, customising	W_01

	the environment to user's requirements. INTERNET network services and techniques of searching information.	U_02
2	Excel spreadsheet – navigation, data entry, addressing, formulas, and formula copying.	W_02 U_01
3	Excel spreadsheet – mathematical expressions, tabulation of functions, diagrams of univariate functions.	W_02 U_01
4	Excel spreadsheet – spreadsheet functions, diagrams, and statistical analysis.	W_02 U_01 K_01
5	Excel spreadsheet – diagrams of multivariate functions.	W_02 U_01
6	Writing an algorithm in the form of computer program.	W_04 U_03
7	Conditional construct algorithms in a programming language.	W_04 U_03
8	Data processing in iterative algorithms.	W_04 U_03
9	Data processing in iterative algorithms - continuation.	W_04 U_03
10	Practical familiarising with the HTML language. The structure of the HTML language. HEAD section elements (title, coding, etc.). Tags and attributes. Linear and block elements. Lists.	W_03 U_02
11	Practical familiarising with the HTML language, cont. Graphics, links, and tables.	W_03 U_02
12	Project – individual preparation of a website in the HTML language.	W_03 U_02 K_01

#### 4. The characteristics of project assignments

### The methods of assessing teaching results

Effect symbol	<b>Methods of assessing teaching results</b> <i>(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)</i>
W_01	An independent assignment.
W_02	A test during laboratory classes.
W_03	A test during laboratory classes.
W_04	A test during laboratory classes.
U_01	A test during laboratory classes.
U_02	An independent project assignment.
U_03	A test during laboratory classes.
K_01	Observing a student's involvement during the classes; a discussion during laboratory classes.

## D. STUDENT'S INPUT

ECTS credit points		
	Type of student's activity	Student's workload
1	Participation in lectures	
2	Participation in classes	
3	Participation in laboratories	24
4	Participation in tutorials (2-3 times per semester)	6
5	Participation in project classes	
6	Project tutorials	15
7	Participation in an examination	
8	Lectures tutorials	
9	<b>Number of hours requiring a lecturer's assistance</b>	<b>45</b> <i>(sum)</i>
10	<b>Number of ECTS credit points which are allocated for assisted work</b> <i>(1 ECTS point=25-30 hours)</i>	<b>1.6</b>
11	Unassisted study of lecture subjects	
12	Unassisted preparation for classes	
13	Unassisted preparation for tests	5
14	Unassisted preparation for laboratories	20
15	Preparing reports	
15	Preparing for a final laboratory test	4
17	Preparing a project or documentation	6
18	Preparing for an examination	
19		
20	<b>Number of hours of a student's unassisted work</b>	<b>35</b> <i>(sum)</i>
21	<b>Number of ECTS credit points which a student receives for unassisted work</b> <i>(1 ECTS point=25-30 hours)</i>	<b>1.4</b>
22	<b>Total number of hours of a student's work</b>	<b>80</b>
23	<b>ECTS points per module</b> <i>1 ECTS point=25-30 hours</i>	<b>3</b>
24	<b>Work input connected with practical classes</b> <i>Total number of hours connected with practical classes</i>	<b>50</b>
25	<b>Number of ECTS credit points which a student receives for practical classes</b> <i>(1 ECTS point=25-30 hours)</i>	<b>2</b>

## E. LITERATURE

Literature list	1. Groszek M., <i>ABC Excel 2007 PL</i> , Helion 2007. 2. Lutz M., Ascher D., <i>Python. Wprowadzenie</i> , Helion. Strony internetowe np.: <a href="http://webmaster.helion.pl/kurshtml/">http://webmaster.helion.pl/kurshtml/</a> <a href="http://algorytmy.pl/doc/xhtml/">http://algorytmy.pl/doc/xhtml/</a>
Module website	<b>kis.tu.kielce.pl</b>