



MODULE DESCRIPTION

Module code	
Module name	Podstawy Programowania 1
Module name in English	The of Fundamentals of Programming 1
Valid from academic year	2012/2013

MODULE PLACEMENT IN THE SYLLABUS

Subject	Computer Science
Level of education	1st degree <i>(1st degree / 2nd degree)</i>
Studies profile	General <i>(general / practical)</i>
Form and method of conducting classes	Full-time <i>(full-time / part-time)</i>
Specialisation	
Unit conducting the module	The Department of Computer Science
Module co-ordinator	Arkadiusz Chrobot, PhD, Eng.
Approved by:	

MODULE OVERVIEW

Type of subject/group of subjects	Major <i>(basic / major / specialist subject / conjoint / other HES)</i>
Module status	Compulsory <i>(compulsory / non-compulsory)</i>
Language of conducting classes	Polish
Module placement in the syllabus - semester	1st semester
Subject realisation in the academic year	Winter semester <i>(winter / summer)</i>
Initial requirements	No requirements <i>(module codes / module names)</i>
Examination	No <i>(yes / no)</i>
Number of ECTS credit points	5

Method of conducting classes	Lecture	Classes	Laboratory	Project	Other
Per semester	30		30		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS



Projekt współfinansowany ze środków Unii Europejskiej w ramach Europejskiego Funduszu Społecznego

Module target	The aim of the module is to familiarise students with basic notions from the field of programming (an algorithm, a variable, variable type, and data structure); students also become acquainted with basic algorithms and data structures; moreover, students learn how to create simple programs using a high-level programming language (Pascal).
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Effect symbol	Teaching results	Teaching methods (l/c/l/p/other)	Reference to subject effects	Reference to effects of a field of study
W_01	Knowledge of such notions as algorithm and the examples of basic algorithms.	l	K_W06, K_W07	T1A_W03, T1A_W07
W_02	Knowledge of basic constructions of a high-level programming language (e.g. conditional and iterative instructions).	l	K_W06	T1A_W03, T1A_W07
W_03	Knowledge of basic data types and data structures.	l	KW_06, KW_07	T1A_W03, T1A_W07
W_04	Knowledge of issues connected with structured programming.	l	KW_06, KW_11	T1A_W03, T1A_W07
U_01	The ability of using an integrated environment of creating software (editing source code, compilation, and debugging).	l	KU_12	T1A_U08
U_02	The ability of using simple constructions of a high-level programming language in a program.	l	K_U12	T1A_U08, T1A_U16
U_03	The ability of using simple programs based on structured paradigm.	l	KU_12	T1A_U08, T1A_U16

Teaching contents:

Teaching contents as regards lectures

Lecture number	Teaching contents	Reference to teaching results for a module
1-2.	Introduction – the notion of an algorithm, the examples of algorithms, and simple data types.	W_01, W_02
3.	Initiation of variable operators.	W_02,
4.	Conditional and iterative instructions.	W_02
5.	Functions and procedures.	W_04
6.	Enumerated as well as range types, sets.	W_03
7.	Arrays.	W_03, W_02
8.	Sorting arrays.	W_03, W_02,
9.	Multidimensional arrays and records.	W_03, W_02
10.	Files.	W_03, W_02
11.	Modular programming, modules.	W_04
12.	Communication with a user, CRT module.	W_02, W_03
13.	File and catalogue management, DOS module.	W_02, W_03
14-15.	The fundamentals of 2D graphics.	W_02, W_03



Teaching contents as regards laboratory classes

Laboratory class number	Teaching contents	Reference to teaching results for a module
1.	Integrated programming environment.	U_01
2.	Variables as well as arithmetic and logic operations in Pascal language.	U_02
3.	Conditional and iterative instructions.	U_02
4-5.	Procedures and functions, passing parameters.	U_02, U_03
6.	Enumerated as well as range types, sets.	U_02, U_03
7-8.	Arrays.	U_02, U_03
9.	Sign chains.	U_02, U_03
10-11.	Multidimensional arrays and records.	U_02, U_03
12-13.	Operations on files.	U_02, U_03
14.	Modules.	U_02, U_03
15.	Communication with a user.	U_02, U_03

The methods of assessing teaching results

Effect symbol	Methods of assessing teaching results <i>(assessment method, including skills – reference to a particular project, laboratory assignments, etc.)</i>
W_01	A written test
W_02	A written test
W_03	A written test
W_04	A written test
U_01	Laboratory class assignments, a test on laboratory classes
U_02	Laboratory class assignments, a test on laboratory classes
U_03	Laboratory class assignments, a test on laboratory classes

STUDENT'S INPUT

ECTS credit points		Student's workload
	Type of student's activity	
1	Participation in lectures	30
2	Participation in classes	
3	Participation in laboratories	30
4	Participation in tutorials (2-3 times per semester)	3
5	Participation in project classes	
6	Project tutorials	
7	Participation in an examination	
8		



Projekt współfinansowany ze środków Unii Europejskiej w ramach Europejskiego Funduszu Społecznego

9	Number of hours requiring a lecturer's assistance	63 <i>(sum)</i>
10	Number of ECTS credit points which are allocated for assisted work <i>(1 ECTS credit point=25-30 hours)</i>	3
11	Unassisted study of lecture subjects	10
12	Unassisted preparation for classes	
13	Unassisted preparation for tests	15
14	Unassisted preparation for laboratories	20
15	Preparing reports	
16	Preparing for a final laboratory test	10
17	Preparing a project or documentation	
18	Preparing for an examination	
19	Preparing questionnaires	
20	Number of hours of a student's unassisted work	55 <i>(sum)</i>
21	Number of ECTS credit points which a student receives for unassisted work <i>(1 ECTS credit point=25-30 hours)</i>	2
22	Total number of hours of a student's work	118
23	ECTS credit points per module <i>1 ECTS credit point=25-30 hours</i>	5
24	Work input connected with practical classes <i>Total number of hours connected with practical classes</i>	60
25	Number of ECTS credit points which a student receives for practical classes <i>(1 ECTS credit point=25-30 hours)</i>	2