

Course code C.5.1. Course item

1. INFORMATION ABOUT THE COURSE

A. Basic information

Course title	Basic Computer Programming
Field of study	Computer Aided Engineering
Cycle	<i>Second</i>
Study profile	<i>Academic</i>
Study mode	<i>Full-time</i>
Specialisation	<i>Not relevant</i>
Unit responsible for the field of study	<i>Faculty of Mechanical Engineering</i>
Lecturer	<i>Dr inż. Piotr Kiedrowski, Mgr inż. Damian Ledzinski</i>
Introductory courses	<i>Not relevant</i>
Prerequisites	<i>Basic knowledge of computer and mathematics</i>

B. Semester/ weekly timetable

Semester	Lectures	Classes	Laboratories	Project classes	Seminars	Field experience	ECTS credits
II	30	-	30	-	-	-	5

LEARNING OUTCOMES (acc. to National Qualifications Framework)

No.	Description of learning outcomes	Reference to learning outcomes for the field of study	Reference to learning outcomes for the area of study
KNOWLEDGE			
K1	Student has got a basic knowledge in computer programming	CAE_W01	T2A_W02
K2	Student will have the knowledge to the discussion of the complexity of data structure and functions.	CAE_W08	T2A_W04 T2A_W05
SKILLS			
S1	Student is able to improve the functionality of the existing software and create new software.	CAE_U06	T2A_U16
S2	Student is able to prepare a scientific report using word processing, spreadsheets, graphical presentation.	CAE_U08	T2A_U03 T2A_U10
SOCIAL COMPETENCES			
SC1	Student is able to think and act in a creative way,	CAE_K06	T2A_K06

2. TEACHING METHODS

for example: multimedia lecture, laboratory classes

2. METHODS OF EXAMINATION

for example: written exam, test once per semester

3. COURSE CONTENT

Specify the content separately for each type of classes in accordance with point I.B.	<ol style="list-style-type: none">1. Learning how to manage data2. Learning a language for expressing computations;3. Learning about the process of writing and debugging a program;4. Learning about the process of moving from a problem statement to a computational formulation of a method for solving the problem.
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4. VALIDATION OF LEARNING OUTCOMES

(Each learning outcome from the list requires validation methods to ensure that it was achieved by a student.)

Learning outcome	Form of assessment (for example:)					
	Oral examination	Written examination	Colloquium	Project	Report	Test
K1		x				
S1						x
SC1						

5. LITERATURE

Basic literature	<ol style="list-style-type: none">1. Pilgrim M.: Dive into Python, Free Software Foundation, 2004, This book lives at http://diveintopython.org/2. Downey A.B.: Think Python, O'REILLY, 2012, Available from http://www.greenteapress.com/thinkpython/
Supplementary literature	Sole A. D.: Visual Basic 2010 Unleashed, SAMS, 2011

6. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity	Student workload—number of hours (for example:)
Participation in classes indicated in point 2.2	30
Preparation for classes	35
Reading assignments	35
Other (preparation for exams, tests, carrying out a project etc)	25
Total student workload	125
Number of ECTS credits allocated by the lecturer	5
Final number of ECTS credits (determined by the Programme Council for the Field of Study)	5