SYLLABUS OF A MODULE

Polish name of a module	**Programowanie uogólnione**
English name of a module	**Generic programming**
ISCED classification - Code	0613
ISCED classification - Field of study	*Software and applications development and analysis*
Languages of instruction	*English*
Level of qualification	*2 - MSc (EQF 7)*
Number of ECTS credit points	*6*
Examination	*EW- exam written*
Available in semester	*A – Autumn only*

Number of hours per semester:

Lecture	Tutorial	Laboratory	Seminar	Project	Others
30	0	30	0	0	0

MODULE DESCRIPTION

Module objectives

C1.   a student acquires the generic programming knowledge

C2.   a student acquires the generic programming skills

C3.   a student acquires social competence

PRELIMINARY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. intermediate English language skills

2. C++ intermediate programming skills

3. programming skills using Linux

LEARNING OUTCOMES

EU1. a student acquired the generic programming knowledge

EU2. a student acquired the generic programming skills

EU3. a student acquired social competence

MODULE CONTENT

Type of classes – lectures	Number of hours
W1: templates (kinds of templates and parameters, template specialization, template argument deduction, variadic templates)	**10**
W2: supporting mechanisms (auto type, function overloading, perfect argument forwarding, generic call expression)	**10**
W3: type traits, constraint, concept, order relations, algorithm lifting	**10**
Type of classes– laboratory	Number of hours
L1: templates (kinds of templates and parameters, template specialization, template argument deduction, variadic templates)	**10**
L2: supporting mechanisms (auto type, function overloading, perfect argument forwarding, generic call expression)	**10**
L3: type traits, constraint, concept, order relations, algorithm lifting	**10**

TEACHING TOOLS

1. lecture
2. lab class
3. test

WAYS OF ASSESSMENT (F – FORMATIVE, S – SUMMATIVE

F1.involvement in lab classes
P1.   test

STUDENT'S WORKLOAD

	Forms of activity	Average number of hours required for realization of activity
1. Contact hours with teacher		
1.1	Lectures	30
1.2	Tutorials	0
1.3	Laboratory	30

1.4	Seminar	0
1.5	Project	0
1.6	Examination	0
Total number of contact hours with teacher:		60
2. Student's individual work		
2.1	Preparation for tutorials and tests	0
2.2	Prreparation for laboratory exercises, writing reports on laboratories	30
2.3	Preparation of project	0
2.4	Preparation for final lecture assessment	30
2.5	Preparation for examination	0
2.6	Individual study of literature	30
Total numer of hours of student's individual work:		90
Overall student's workload:		150
Overall number of ECTS credits for the module		**6**
Number of ECTS points that student receives in classes requiring teacher's supervision:		2,44
Number of **ECTS** credits acquired during practical classes including laboratory exercises and projects :		2,2

BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

1. Bjarne Stroustrup, The C++ Programming Language, Addison-Wesley, 2013
2. Scott Meyers, Effective Modern C++, O'Reilly, 2014

MODULE COORDINATOR (NAME, SURNAME, INSTITUTE, E-MAIL ADDRESS)

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