

### 1.3. Module/ course form

To be completed by Course Team	Module name : Programming				Module code: M8		
	Course name: <b>Network programming in Java</b>				Course code:		
	Faculty: <b>Institute of Applied Informatics</b>						
	Field of study: <b>Informatics</b>						
	Mode of study : <b>Full-time</b>		Learning profile: <b>Practical</b>		Speciality:		
	Year/ semester: <b>3/5</b>		Module/ course status: <b>Mandatory</b>		Module/ course language: <b>polish/anglich</b>		
	Type of classes	lecture	lessons	Lab	project	tutorial	other (please specify)
	Course load	<b>30</b>		<b>30</b>			

Module/ course coordinator	Dr Joanna Jółkowska
Lecturer	Dr Joanna Jółkowska, Mgr Rafał Jółkowski
Module/ course objectives	After completing the course, students should understand the architecture of web applications based on the application server; be familiar with popular servers, to be able to run and configure it for their application; create your own web applications using accepted standards and using some frameworks
Entry requirements	Basics of object-oriented programming in Java

LEARNING OUTCOME		
Nr	LEARNING OUTCOME DESCRIPTION	Learning outcome reference
1	A student knows the basic elements of the Java Enterprise Edition	K_W11
2	He understands and explains the examples of the problem of object-relational mapping	K_W11
3	He knows the architecture of the Java web application	K_W11
4	He creates a simple web applications in Java using the selected framework	K_U01 K_U12 K_U16 K_U19
5	He configures a object-relational mapping for his own web application	K_U01 K_U12 K_U16 K_U19
6	He validates his app forms, he can add the language versions	K_U01 K_U12 K_U16 K_U19

7	He works alone, seeking solutions in the documentation and online forums	K_K01
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<b>CURRICULUM CONTENTS</b>	
<b>Lecture</b>	
<ol style="list-style-type: none"> <li>1. Introduction to Java Enterprise Edition</li> <li>2. Creation of user interfaces using Java Server Faces (JSF)</li> <li>3. Using templates in JSF applications</li> <li>4. Additional libraries on the example of PrimeFaces</li> <li>5. Define validators, converters for form views, and internationalization of JSF applications</li> <li>6. The problem of object-relational mapping and standard Java Persistence API (JPA)</li> <li>7. Basic administration of selected application server</li> <li>8. Introduction to web services</li> </ol>	
<b>Tutorial</b>	
Web application development	

Basic literature	<ol style="list-style-type: none"> <li>1. Documentation</li> <li>2. D.Geary, C.Horstmann <i>Java Server Faces</i></li> </ol>
Additional literature	

Teaching methods	<ol style="list-style-type: none"> <li>1) lecture / lecture with multimedia presentation</li> <li>2) exercises in auditorium with implementation of the project method for practical tasks (live programming)</li> <li>3) alone realizes the simple tasks and in second part of the course realizes more sophisticated tasks</li> <li>4) during whole course develops a individual project . The project is developed gradually by application of new learning outcome..</li> <li>5) blended-learning</li> </ol>	
Assessment method		Learning outcome number
Short tests at the beginning of lessons		04,05,06,07
Project task		04,05,06,07,08
Course exam		01,02,03
Form and terms of an exam	Parts of course evaluation: 50% course exam, 50% laboratory score	

<b>STUDENT WORKLOAD</b>	
	Number of hours
Participation in lectures	30
Independent study of lecture topics	10
Participation in tutorials, labs, projects and seminars	30
Independent preparation for tutorials*	20
Preparation of projects/essays/etc. *	10
Preparation/ independent study for exams	5

Participation during consultation hours	5
Other: exam	2
<b>TOTAL student workload in hours</b>	<b>127</b>
<b>Number of ECTS credit per course unit</b>	<b>5</b>
Number of ECTS credit associated with practical classes	70 2,8 ECTS
Number of ECTS for classes that require direct participation of professors	67 2,7 ECTS