(*faculty stamp*) **COURSE DESCRIPTION**

1. Course title: PROGRAMMING FOR THE JAVA PLATFORM, ENTERPRISE EDITION	**2. Course code: JAVA_EE**
3. Validity of course description: 2017/2018	
4. Level of studies: 1st cycle of higher education	
5. Mode of studies: intramural studies	
6. Field of study: MACROFACULTY	(RAU)
7. Profile of studies: general academic	
8. Programme: Informatics	
9. Semester: 7	
10. Faculty teaching the course: Faculty Of Automatic Control, Electronics and Informatics	
11. Course instructor: dr inż. Krzysztof Dobosz	
12. Course classification: -	
13. Course status: optional	
14. Language of instruction: English	
15. Pre-requisite qualifications: Completed the course: "*Introduction to Programming in Java*" (semester 6)	
16. Course objectives: This course learns using Java technology for enterprise computing and web programming. The set of exercises introduces to programming for web servers and application servers. The course lets develop and deploy Java web applications and application server components	

17. Description of learning outcomes:

Nr	Learning outcomes description	Method of assessment	Teaching methods	Learning outcomes reference code
1.	Knowledge and ability to use object persistence	written test, laboratory task	lecture, laboratory	K_W12, K_U23
2.	Knowledge and ability to create EJB components	written test, laboratory task	lecture, laboratory	K_W12, K_U23
3.	Knowledge and ability to create web application using Java Servlets specification	written test, laboratory task	lecture, laboratory	K_W12, K_U23
4.	Knowledge and ability to design web GUI with JSP, JSTL and custom tags	written test, laboratory task	lecture, laboratory	K_W12, K_U14
5.	Knowledge and ability to use GWT library	written test, laboratory task	lecture, laboratory	K_W12, K_U14

18. Teaching modes and hours

Lecture / BA /MA Seminar / Class / Project / Laboratory

Lecture - 15 h, Class - , Laboratory – 30 h

19. Syllabus description:

Lectures includes the following topics:

1. Genesis of ORM frameworks. Database applications using JPA.
2. Session EJBs. Session tracking. Singletons. Message-driven beans.
3. Controlling web applications with servlets.
4. Java Server Pages. Java Standard Tags Library. Custom tags.
5. From distributed computing to service-oriented architectures.
6. Asynchronous JavaScript. Implementations for Java EE.
7. Design patterns for Java EE Platform.

The laboratories covers the following topics:

1. Java Persistence API
2. Enterprise Java Beans
3. Java Servlets
4. Java Server Pages, JSTL and custom tags
5. Google Web Toolkit

20. Examination: no

21. Primary sources:

- The Java Platform, EE7 (http://www.oracle.com/technetwork/java/javaee/overview/index.html)

22. Secondary sources:

- M. Keith, M. Schincariol. Pro JPA 2: Mastering the Java Persistence API. Apress 2009
- S. Bayern. JSTL in Action. Manning Publication Co. 2002.
- R. Hanson, A. Tacy.. GWT in Action. Manning Publication Co. 2007.
- B. Burje, R. Monson-Haefel. Enterprise JavaBeans 3.0. O'Reilly 2001
- J. Hunter, W. Crawford. Java Servlet Programming, 2nd Edition. O'Reilly 2001

23. Total workload required to achieve learning outcomes

Lp.	Teaching mode :	Contact hours / Student workload hours
1	Lecture	15 / -
2	Classes	- / -
3	Laboratory	30 / 15
4	Project	- / -
5	BA/ MA Seminar	- / -
6	Other	- / -
	Total number of hours	45 / 15

24. Total hours: 60

25. Number of ECTS credits: 2

26. Number of ECTS credits allocated for contact hours: 1.5

27. Number of ECTS credits allocated for in-practice hours (laboratory classes, projects): 1.5

26. Comments:

There is the ability to develop a part of the engineering work during laboratory classes.

Approved:

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(date, Instructor's signature) (*date , the Director of the Faculty Unit signature)*