The Faculty of:	Electrical and Computer Engineering		
Field of study:	Electronics and Telecommunications		
Speciality:			
Study degree (BSc, MSc):	first circle full time studies		

COURSE UNIT DESCRIPTION

Course title:	Programming in 3GL		
Lecturer responsible for course: Grzegorz Dec, PhD Contacts: phone: +48 17 8651486 e-mail: gdec@prz-rzeszow.pl			
Department : Computer Science and Automatic Control			

		Type of classes				Number of
Semester	Weekly load	L Lectures	C Theoretical Classes	Lb Laboratory	P Project	ECTS credits
4	3	15		15		4

Course description

Lecture:

- 1. Object modeling in the UML,
- 2. Object-oriented programming. Methods of program assembly, processing instructions, creating GUI.
- 3. Handling communication interfaces.
- 4. Network programming.
- 5. Electronics devices programming.
- 6. Basics of Java language.
- 7. Document building principles. Using markups.
- 8. Applications of markups to building configuration files and information systems.
- 9. Scripting languages. Methods of program assembly, processing instructions. Javascript language.
- 10. Dynamics information systems.

Classes:

Laboratory:

- 1. UML Class Diagram. Generating Java code.
- 2. Sequence diagrams. Implementation of object's dynamics.
- 3. Collection in the Java language.
- 4. Network communication in the Java environment.
- 5. XML documents. Document validation.
- 6. Building GUI in the XHTML language.
- 7. Javascript and DOM dynamics HTML.

Project:		
Objectives of the course		
Applying a programming language to solve problems in the hardware and services programming. Creating software using languages presented on the lectures. Specifying basics requirements of program interfaces. Design and implementation of informations services for devices.		
Examination method		
Laboratory: reports from the classes Lecture: a written test		

Bibliography

- 1. Joseph Schmuller "UML dla każdego", Helion, 2003

- Bruce Eckel "Thinking in Java. Edycja polska. Wydanie IV", Helion 2006
 Przemysław Kazienko, Krzysztof Gwiazda "XML na poważnie", Helion, 2002
 Bryan Pfaffenberger, Steven M. Schafer, Chuck White, Bill Karow "HTML, XHTML i CSS. Biblia", Helion, 2005
- 5. Shelley Powers "JavaScript. Wprowadzenie", Helion, 2007

Lecturer signature	
Head of Department signature	
Dean signature	