AGH UNIVERSITY OF SCIENCE AND TECHNOLOGY

Module name: Modeling of object oriented software

Academic year: 2013/2014 Code: RMS-1-407-s ECTS credits: 3

Faculty of: Mechanical Engineering and Robotics

Field of study: Mechatronics with English as instruction languagege Specialty: —

Study level: First-cycle studies Form and type of study: Full-time studies

Lecture language: English Profile of education: Academic (A) Semester: 4

Course homepage: —

Responsible teacher: dr hab. inż. Giergiel Mariusz (giergiel@agh.edu.pl)

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Description of learning outcomes for module

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Connections with FLO	Method of learning outcomes verification (form of completion)
Social competence			
M_K001	able to work in a team with the division of powers and responsibilities	MS1A_K05	Activity during classes
Skills			
M_U001	Is able to prepare a schematic design with UML	MS1A_U01	Execution of laboratory classes
M_U002	Is able to build a programm that uses object-oriented programming language	MS1A_U03	Activity during classes
Knowledge			
M_W001	Knows the basic principles of object-oriented modelling	MS1A_W10	Activity during classes
M_W002	Knows and understands object-oriented programming paradigm	MS1A_W10	Completion of laboratory classes

FLO matrix in relation to forms of classes

MLO code	Student after module completion has the knowledge/ knows how to/is able to	Form of classes										
		Lectures	Auditorium classes	Laboratory classes	Project classes	Conversation seminar	Seminar classes	Practical classes	Others	Fieldwork classes	Workshops	E-learning
Social competence												
M_K001	able to work in a team with the division of powers and responsibilities	-	-	+	-	-	-	-	-	-	-	-
Skills												
M_U001	Is able to prepare a schematic design with UML	-	-	+	-	-	-	-	-	-	-	-
M_U002	Is able to build a programm that uses object-oriented programming language	-	-	+	-	-	-	-	-	-	-	-
Knowledge												
M_W001	Knows the basic principles of object-oriented modelling	+	-	-	-	-	-	-	-	-	-	-
M_W002	Knows and understands object-oriented programming paradigm	+	-	-	-	-	-	-	-	-	-	-

Module content

Lectures

Basics of object-oriented programming
definitions and functions of objects, methods, procedures and links with elements of the real

UML description language
UML base and its use to describe real objects and block diagrams

Object-oriented programming paradigm
Basics elements of object modelling and programming paradigm

Laboratory classes

Basics of object-oriented programming
Design and implementation of various programming tasks using object-oriented languages and object-oriented programming mechanisms

Method of calculating the final grade

Na podstawie średniej z ocen cząstkowych uzyskanych w czasie zajęć laboratoryjnych

Prerequisites and additional requirements

Prerequisites and additional requirements not specified

Recommended literature and teaching resources

Dadaj M. Programowanie zorientowane obiektowo. Wyd. Helion 2005
Wirfs-Brock R., McKean A. Projektowanie obiektowe. Role, odpowiedzialność i współpraca. Wyd. Helion. 2005
Miękina L. Programowanie zorientowane obiektowo. Wyd. KRiM, Kraków, 2006
Lavin P. PHP. Programowanie obiektowe. Wyd. Helion. 2007

Scientific publications of module course instructors related to the topic of the module

Additional scientific publications not specified

Additional information

None

Student workload (ECTS credits balance)

Student activity form	Student workload
Participation in lectures	15 h
Participation in laboratory classes	30 h
Preparation for classes	15 h
Preparation of a report, presentation, written work, etc.	15 h
Summary student workload	75 h
Module ECTS credits	3 ECTS