Faculty of Electrical Engineering					
STUDY MODULE DI	ESCRIPTION FORM				
Name of the module/subject Collective project		Code 1010334581010330098			
Field of study	Profile of study (general academic, practical)	Year /Semester			
Information Engineering	(brak)	4/8			
Elective path/specialty	Subject offered in:	Course (compulsory, elective)			
Information Technologies	Polish	obligatory			
Cycle of study:	Form of study (full-time,part-time)				
First-cycle studies	part-time				
No. of hours		No. of credits			
Lecture: - Classes: - Laboratory: 20	Project/seminars:	20 5			
Status of the course in the study program (Basic, major, other)	(university-wide, from another fi	eld)			
(brak)	(brak)				
Education areas and fields of science and art		ECTS distribution (number and %)			
technical sciences		5 100%			
Responsible for subject / lecturer:					
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Prerequisites in terms of knowledge, skills and social competencies:					

1	Knowledge	Knowledge knows and understands to an advanced extent knowledge in the field of basic algorithms and their analysis, algorithm design techniques, abstract data structures and their implementation, computationally difficult problems [K1_W04 (P6S_WG)]
2	Skills	is able to formulate requirements, develop an object model, design and evaluate a simple IT system, taking into account the implemented functions and connections between components and using appropriately selected methods and techniques [K1_U16 (P6S_UW)]
3	Social competencies	is ready to critically evaluate his knowledge in the field of computer science and recognize the importance of knowledge in solving cognitive and practical problems in the area of computer science [K1_K01 (P6S-KK)]

Assumptions and objectives of the course:

Theoretical and practical aspects of the group work.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. knows and understands to a large extent typical IT engineering technologies - [[K1_W18 (P6S_WG)]]

Skills:

- 1. Student is able to work independently and in a teacan estimate the time needed for the implementation of the task ordered; develop and implement a work schedule that ensures deadlines; plan and organize work individual and in a team m, is able to estimate the time needed for the commissioned tasks, able to develop and implement a schedule of work to ensure deadlines. [[K1_U02 (P6S_UO)]]
- 2. is able to develop documentation of the engineering task and prepare a discussion of the results of this task with the use of specialist terminology [[K1_U03 (P6S_UK)]]
- 3. can participate in the debate on engineering tasks in the field of computer science; present and evaluate different opinions and positions [[K1_U04 (P6S_UK)]]

Social competencies:

1. is ready to responsibly perform professional roles, including adherence to the principles of professional ethics and adherence to these principles by others - [[K1_K04 (P6S-KR)]]

Assessment methods of study outcomes

Tests, exercises, projects and reports.

Course description

Laboratory and projects:

Basic aspects of the group work: communication, collaboration, coordination. Modeling of the group work. Groupware. Course update 2017: Various programming projects realized by groups of students.

Teaching methods:

laboratory - with multimedia presentation, additional topics included in Moodle course, used tools enable students to perform tasks at home

projects - group work, multimedia presentation, analysis/discussion

Basic bibliography:

- 1. depends on the project
- 2. http://www.scrumguides.org/docs/scrumguide/v1/scrum-guide-pl.pdf
- 3. https://trello.com

Additional bibliography:

- 1. depends on the project
- 2. agilemanifesto.org. Witryna Agile Manifesto. [Online]. http://agilemanifesto.org

Result of average student's workload

Activity	Time (working hours)
1. Participation in labs.	20
2. Participation in project labs.	20
3. Project modeling and design	65
4. Preparation of the report	10
5. Consultations	10

Student's workload

Source of workload	hours	ECTS		
Total workload	125	5		
Contact hours	50	2		
Practical activities	125	5		