STUDY MODULE DESCRIPTION FORM

Name of the module/subject	Code
Selected problems of mathematies	**1010335511010347153**

Field of study	Profile of study (general academic, practical)	Year /Semester
Information Engineering	**(brak)**	**1 / 1**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
Second-cycle studies	**part-time**

No. of hours	No. of credits
Lecture: **8** Classes: **8** Laboratory: **-** Project/seminars: **-**	**3**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
the sciences	**3 100%**
Mathematical sciences	**3 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student has knowledge from bachelor's degree.
2	**Skills**	Ability to apply concepts from differential and integral calculus and linear algebra.
3	**Social competencies**	Student has social competencies from bachelor's degree.

Assumptions and objectives of the course:

Presenting abstract algebraic concepts (groups, enumeration, finite fields) and gaining skills with them. Applications to computer science.

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

Knowledge:

1. Advanced methods connected with groups, enumeration and finite fields. - [K_W01]

Skills:

1. Ability to connect theory with applications. - [K_U01]
2. Knowlege of chosen algorithms. - [K_U05]

Social competencies:

1. Świadomość ograniczenia własnej wiedzy i motywacja dalszego wszechstronnego rozwoju. - [K_K01]

Assessment methods of study outcomes

Lecture:

1. Exam with problems to solve.
2. Activity of a student is important for the final grade.

Course description

Course update 2017

Teaching methods:
1. Lectures with multimedia presentation
2. Activity of a student is important for the final grade.

Basic bibliography:

1. W.J.Gilbert, W.K.Nicholson, Algebra współczesna z zastosowaniami, WNT, Warszawa 2008
2. M. Grzesiak, www.math.put.poznan.pl/~grzesiak (wykłady w formie elektronicznej)

Additional bibliography:

1. A.I.Kostrikin, Wstęp do algebry cz. II: Algebra liniowa, PWN, Warszawa 2004

Result of average student's workload

Activity	Time (working hours)
1. Lectures and consultations.	16
2. Preparation for test	30
3. Student's own work as a preparation for classes.	30

Student's workload

Source of workload	hours	ECTS
Total workload	76	3
Contact hours	20	2
Practical activities	56	1