

FACULTY OF PURE AND APPLIED MATHEMATICS  
SUBJECT CARD

**Name in Polish:** Praca dyplomowa

**Name in English:** Diploma thesis

**Main field of study (if applicable):** APPLIED MATHEMATICS

**Specialization (if applicable):** FINANCIAL AND ACTUARIAL MATHEMATICS;  
MATHEMATICS FOR INDUSTRY AND COMMERCE;  
COMPUTATIONAL MATHEMATICS;  
MODELLING, SIMULATION, OPTIMIZATION

**Level and form of studies:** 1st/ 2nd\* level, full-time / part-time\*

**Kind of subject:** obligatory / ~~optional~~ / ~~university-wide~~\*

**Subject code** MAT001590

**Group of courses** YES / NO\*

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)					30
Number of hours of total student workload (CNPS)					690
Form of crediting	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*	Examination / crediting with grade*
For group of courses mark (X) final course					
Number of ECTS points					23
including number of ECTS points for practical (P) classes					23
including number of ECTS points for direct teacher-student contact (BK) classes					1

\*delete as applicable

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Student has the advanced knowledge and skills in the field of mathematical analysis, functional analysis and the theory of differential equations
2. He has deeper knowledge and skills in the field of probability theory, mathematical statistics and the theory of stochastic processes.

**SUBJECT OBJECTIVES**

C1 Getting to know new developments and methods used in various applications of mathematics.

### SUBJECT EDUCATIONAL EFFECTS

relating to knowledge:

PEK\_W01 knows the basic models and methods used in various applications of mathematics

PEK\_W02 knows the basics of stochastic modeling

relating to skills:

PEK\_U01 able to construct basic mathematical models used in various fields

relating to social competences:

PEK\_K01 can benefit from the scientific literature (including in foreign languages), including reaching the source materials and make them review

### TEACHING TOOLS USED

N1. Student's own work - searching for information, writing thesis analysis of real data

N2. Consultations

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEK_W01 PEK_W02 PEK_U01 PEK_K01	evaluation of the student's self work, the assessment of the thesis
P=F1		

### PRIMARY AND SECONDARY LITERATURE

### SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

**Prof. dr hab. Aleksander Weron** ([Aleksander.Weron@pwr.edu.pl](mailto:Aleksander.Weron@pwr.edu.pl))  
**Prof. dr hab. Wojciech Okrański** ([Wojciech.Okrasinski@pwr.edu.pl](mailto:Wojciech.Okrasinski@pwr.edu.pl))  
**Dr hab. Jan Goncerzewicz** ([Jan.Goncerzewicz@pwr.edu.pl](mailto:Jan.Goncerzewicz@pwr.edu.pl))  
**Prof. dr hab. Krzysztof Szajowski** ([Krzysztof.Szajowski@pwr.edu.pl](mailto:Krzysztof.Szajowski@pwr.edu.pl))  
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**Dr Monika Muszkieta** ([Monika.Muszkieta@pwr.edu.pl](mailto:Monika.Muszkieta@pwr.edu.pl))  
**Dr hab. Krzysztof Burnecki, prof. nadzw. PWr.** ([Krzysztof.Burnecki@pwr.edu.pl](mailto:Krzysztof.Burnecki@pwr.edu.pl))  
**Dr Joanna Janczura** ([Joanna.Janczura@pwr.edu.pl](mailto:Joanna.Janczura@pwr.edu.pl))

**MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
 DIPLOMA THESIS MAT001590  
 AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY APPLIED  
 MATHEMATICS  
 AND SPECIALIZATION FINANCIAL AND ACTUARIAL MATHEMATICS;  
 MATHEMATICS FOR INDUSTRY AND COMMERCE; COMPUTATIONAL  
 MATHEMATICS; MODELLING, SIMULATION, OPTIMIZATION**

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)**	Subject objectives***	Programme content***	Teaching tool number***
<b>PEK_W01 (knowledge)</b>	K2MST_W03 K2MST_W04 K2MST_W05 K2MST_W09	C1	Not applicable	1, 2
<b>PEK_W02</b>	K2MST_W12 K2MST_W14 K2MST_W20 K2MST_W21	C1	Not applicable	1, 2
<b>PEK_U01 (skills)</b>	K2MST_U02 K2MST_U03 K2MST_U04 K2MST_U05 K2MST_U07 K2MST_U10 K2MST_U12 K2MST_U13 K2MST_U14 K2MST_U15 K2MST_U21 K2MST_U24 K2MST_U25 K2MST_U26 K2MST_U28 K2MST_U30	C1	Not applicable	1, 2
<b>PEK_K01 (competences)</b>	K2MST_K06	C1	Not applicable	1, 2

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above