

**FACULTY OF PURE AND APPLIED MATHEMATICS**

**Name in Polish: SEMINARIUM – modelowanie matematyczne w przemyśle**

**Name in English: Seminar – mathematical modelling in industry**

**Main field of study (if applicable): Applied Mathematics**

**Specialization (if applicable): Mathematics for Industry and Commerce**

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

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

**Subject code: MAP2044**

**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)					60
Form of crediting					<del>Examination</del> / crediting with grade*
For group of courses mark (X) final course					
Number of ECTS points					2
including number of ECTS points for practical (P) classes					2
including number of ECTS points for direct teacher-student contact (BK) classes					1

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

1. Student has an advanced knowledge and skills in the field of calculus, functional analysis and the theory of differential equations.
2. She has got a thorough knowledge and skills in the field of probability, mathematical statistics and the theory of stochastic processes.

**SUBJECT OBJECTIVES**

C1 Learning about achievements and new methods used in various applications of mathematics.

\*delete as inapplicable

### SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

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

PEK\_W02 knows the theoretical and technical fundamentals of stochastic modeling

Relating to skills:

PEK\_U01 can build basic mathematical models, used in various disciplines

Relating to social competences:

PEK\_K01 can use the scientific literature (also in foreign languages), including finding source information and browse through articles

Form of classes - seminar		Number of hours
Se1	Mathematical modeling in economical, technological, physical and biological sciences.	30
	Total hours	<b>30</b>

### TEACHING TOOLS USED

1. Problem Seminar, presentation, problem lecture, informative lecture
2. Student's self-work – preparation for the seminar

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

Evaluation (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 presentation, informative or problem lecture prepared by the student
P=F1		

### PRIMARY AND SECONDARY LITERATURE

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

**Prof. dr hab. Aleksander Weron** (Aleksander.Weron@pwr.wroc.pl)

**Dr hab. Marcin Magdziarz** (Marcin.Magdziarz@pwr.wroc.pl)

**MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
DIPLOMA SEMINAR 2 MAP1915  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY MATHEMATICS  
AND SPECIALIZATION MATHEMATICS FOR INDUSTRY AND COMMERCE**

<b>Subject educational effect</b>	<b>Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)</b>	<b>Subject objectives**</b>	<b>Programme content**</b>	<b>Teaching tool number**</b>
<b>PEK_W01</b> (knowledge)	K2MIC_W03	C1	Se1	1, 2
<b>PEK_W02</b>	K2MIC_W09, K2MIC_W20, K2MIC_W21, K2MIC_W22	C1	Se1	1, 2
<b>PEK_U01</b> (skills)	K2MIC_U15	C1	Se1	1, 2
<b>PEK_K01</b> (competences)	K2MIC_K06	C1	Se1	1, 2

\*\* - from the table above