

Faculty Computer Science and Management					
SUBJECT CARD					
Name in Polish:	Wprowadzenie do zarządzania ryzykiem				
Name in English:	Introduction to Risk Management				
Main field of study (if applicable):	Management				
Specialization (if applicable):	Organizational Management				
Level and form of studies:	1st level, full-time				
Kind of subject:	obligatory				
Subject code:	EKZ1129				
Group of courses:	NO				
	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	15	15			
Number of hours of total student workload (CNPS)	30	60			
Form of crediting	crediting with grade	crediting with grade			
For group of courses mark (X) final course					
Number of ECTS points	1	2			
including number of ECTS points for practical (P) classes		2			
including number of ECTS points for direct teacher-student contact (BK) classes	0,5	0,5			

*delete as applicable

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

Basic knowledge of the mechanics of financial markets, elementary probability and statistics.

SUBJECT OBJECTIVES

C1 To provide information about the statistics of financial markets, the use of financial instruments to manage risk and the tools for risk measurement.

SUBJECT EDUCATIONAL EFFECTS

Relating to knowledge:

PEK_W01 Knows the mechanics of financial markets.

PEK_W02 Knows how to measure statistical properties of financial asset prices.

PEK_W03 Knows how to use financial instruments to manage risk.

PEK_W04 Knows how to measure risk.

Relating to skills:

PEK_U01 Can measure volatility of asset prices.

PEK_U02 Can evaluate duration and convexity of bond portfolios.

PEK_U03 Can build stock portfolios.

PEK_U04 Can measure VaR and CFaR.

Relating to social competences:
 PEK_K01 Is aware of the need for an independent, critical assessment of the scope and level of his/her knowledge in the field of risk management. Is prepared for conducting self-studies in this area.
 PEK_K02 Can engage in a discussion and defend his/her views regarding the methods of risk management.

PROGRAMME CONTENT		
Form of classes - lecture		Number of hours
Lec1	Investments, financial markets, stock and futures exchanges	4
Lec2	Statistics of financial markets	3
Lec3	FX and debt instruments, duration and convexity	2
Lec4	Capital market, elements of portfolio theory	2
Lec5	Value-at-risk (VaR), Cash Flow-at-Risk (CFaR)	4
	Total hours	15
Form of classes - class		Number of hours
C11	Financial markets, stock and futures exchanges	2
C12	Statistics of financial markets	3
C13	FX and debt instruments, duration and convexity	2
C14	Capital market, elements of portfolio theory	2
C15	Value-at-risk (VaR), Cash Flow-at-Risk (CFaR)	4
C16	Final test	2
	Total hours	15

TEACHING TOOLS USED
N1. Multimedia lecture N2. Practical exercises N3. Discussion N4. Student's own work

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_W04 PEK_U01÷PEK_U04	Class participation (participation in discussions and problem solving, preparation for class activities)

F2	PEK_W01÷PEK_W04 PEK_U01÷PEK_U04	Grade based on the final test
$P(W) = \frac{1}{2} F1 + \frac{1}{2} F2$ $P(\acute{C}) = \frac{1}{2} F1 + \frac{1}{2} F2$		

PRIMARY AND SECONDARY LITERATURE
<u>PRIMARY LITERATURE:</u>
<p>[1] Z. Bodie, A. Kane, A.J. Marcus (2007) Essentials of Investments (6th ed.), McGraw-Hill</p> <p>[2] J. Franke, W. Härdle, C. Hafner (2005) Introduction to Statistics of Financial Markets, Springer</p> <p>[3] P. Jorion (2006) Value at Risk (3rd Ed.), McGraw-Hill</p>
<u>SECONDARY LITERATURE:</u>
<p>[1] E.J. Elton, M.J. Gruber, S.J. Brown, W.N. Goetzmann (2002) Modern Portfolio Theory and Investment Analysis, Wiley</p> <p>[2] F.J. Fabozzi (2005) The Handbook of Fixed Income Securities", McGraw-Hill</p> <p>[3] P. Wilmott (2000) Paul Wilmott on Quantitative Finance, Wiley, Chichester</p>
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
Dr hab. Rafal Weron, prof. PWr; rafal.weron@pwr.wroc.pl

**MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT
Introduction to Risk Management
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Management
AND SPECIALIZATION Organizational Management**

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***
PEK_W01 (wiedza)	S1_ZARZ_OM_W08	C1	Lec1, Ć11	N1-4
PEK_W02	S1_ZARZ_OM_W08	C1	Lec2, Ć12	N1-4
PEK_W03	S1_ZARZ_OM_W08	C1	Lec3-4, Ć13-4	N1-4
PEK_W04	S1_ZARZ_OM_W08	C1	Lec5, Ć15	N1-4
PEK_U01 (umiejętności)	S1_ZARZ_OM_U08	C1	Lec2, Ć12	N2-4
PEK_U02	S1_ZARZ_OM_U08	C1	Lec3, Ć13	N2-4
PEK_U03	S1_ZARZ_OM_U08	C1	Lec4, Ć14	N2-4
PEK_U04	S1_ZARZ_OM_U08	C1	Lec5, Ć15	N2-4
PEK_K01 (kompetencje)	K1_ZARZ_K01	C1	Ć11-5	N2-4
PEK_K02	K1_ZARZ_K06	C1	Ć11-5	N2-4

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

*** - from table above