

Subject				
Financial Engineering				
ECTS code	Semester	Faculty: Finance		
	3	Major: Finance and Accounting		
		Corporate Finance and Accounting		
Faculty:				
Lecture: Prof. Andrzej Szopa				
Classes: Michal Thlon PhD				
System of studies:				
full time, second degree				
Subject status	Pass requirement	Number of contact hours		ECTS points
		Lectures	Classes	
elective	exam	15	15	5
Teaching language				
English				
Subject provisions and objectives (including the expected can-do of students on completion of the course)				
The main subject of the lecture is to manage financial risk. To this end, students will be familiarized with the basic theoretical problems, such as the concept of VaR, the risk structure, the financial instruments of risk transfer and risk effects on bankruptcy of enterprises. Students after completing the course should be able to effectively manage financial risk.				
Teaching curriculum ( in case of prescribed subjects, compliance with the standards, maximum 15 topics)				
1. Definition of financial engineering 2. Structure of financial risk 3. Kinds of financial risk 4. Framework of financial risk management 5. Engineering of financial instruments 6. Credit risk 7. Weather risk 8. Model of Enterprise 9. Line of bankruptcy 10. Bankruptcy of firm in Poland				
Class topics (maximum 15 topics)				
1. Futures/forward 2. Options 3. Swaps 4. Big financial disasters				
Introductory topics				
Finance, Financial Mathematics				
Teaching methods				
Lecture, discussion, workshops				
Basic literature and other sources				

S.N. Neftci, Principles of financial engineering Elsevier, 2007  
J.C.Hull, Risk management and financial institutions, Pearson, 2007

**Pass requirements for signature/examination**

More than 50% of points from the final exam and a group project

**Examples of questions for tests and examinations**

1. Migration rating indicates
  - a. Change in credit rating during the
  - b. change in market value of debt
  - c. Both of the above
  - d. None of the above
2. Credit derivatives are traded on organized markets
  - a. Yes
  - b. No
3. The rating does not affect the level of credit spread
  - a. Yes
  - b. no