

Syllabus of the course

Derivative instruments

A. General information

Course title	Derivative instruments
Subject area	Finance
Type of studies	Full-time Master Studies/ Full-time Bachelor Studies
Course ID	
Erasmus code	
Source unit (the one that the course is offered by)	Faculty of Economics, Institute of Management, Market Analysis Department
Target unit (the one that the course is offered for)	Faculty of Economics, Institute of Management, Market Analysis Department
Type of course	Facultative courses
Course description	<p>The aim of this course is to provide students with basics about derivative instruments. The course examines the pricing and use of financial derivatives, including options, forwards, futures, swaps and credit derivatives in risk management.</p> <p>By the end of the course, students will have good knowledge of how these products work, how they are used, and how financial institutions hedge their risks when they trade</p>
Educational outcomes	<p>Knowledge:</p> <ol style="list-style-type: none"> 1. about basic types of derivative instruments 2. of how derivative instruments work 3. about trading strategies involving derivatives <p>Skills:</p> <ol style="list-style-type: none"> 1. of developing and analyzing different strategies involving derivatives 2. of using derivatives in risk management <p>Attitudes:</p> <ol style="list-style-type: none"> 1. ability to work and continue education and improve acquired skills and knowledge

	2. the awareness of advantages and risks of investing in derivatives
Language of instruction	English
Course coordinator	Katarzyna Mamcarz, Ph.D.
Additional remarks	www.umcs.pl (search: Mamcarz)

B. Detailed information

Academic year	2014/2015
Semester	Lecture/workshop
Number of hours in semester	30
Name of the academic teacher	Katarzyna Mamcarz, Ph.D.
Level of the class	Intermediate
A list of topics	<p>Topics:</p> <ol style="list-style-type: none"> 1. The origin and nature of derivative instruments 2. Basic types of derivative instruments: <ol style="list-style-type: none"> 2.1. Derivatives with symmetrical or asymmetrical risk profiles 2.2. Exchange-traded or OTC derivatives 2.3. Currency derivatives, interest rate derivatives, equity derivatives, commodity derivatives, etc. 3. Options and their types: <ol style="list-style-type: none"> 3.1. Definition of the option 3.2. Call option and put option 3.3. Exchange-traded options 3.4. Over-the-counter options 3.5. Option styles 4. Option contracts specifications (underlying asset/instrument, strike price, expiration date, settlement terms) 5. Value of an option (intrinsic value and time value) 6. Basic and sophisticated option strategies <ol style="list-style-type: none"> 6.1. Basic option strategies <ol style="list-style-type: none"> 6.1.1. Long call 6.1.2. Long put

	<ul style="list-style-type: none"> 6.1.3. Short call 6.1.4. Short put 6.2. Sophisticated option strategies <ul style="list-style-type: none"> 6.2.1. Straddle 6.2.2. Strangle 6.2.3. Spread 7. Valuation of options (Black–Scholes model) 8. Warrant <ul style="list-style-type: none"> 8.1. Definition, structure and features of warrants 8.2. Types of warrants <ul style="list-style-type: none"> 8.2.1. Traditional (warrant-linked bond) 8.2.2. Naked 9. Financial futures instruments <ul style="list-style-type: none"> 9.1. Futures contract <ul style="list-style-type: none"> 9.1.1. Types of futures contracts (index futures, currency futures, stock futures) 9.1.2. The standard specification for the futures contract 9.2. Forward rate agreement 9.3. Risk and return characteristics of futures/forward contracts 9.4. Pricing of futures contracts 9.5. The players in the futures market: hedger, speculators, brokers 9.6. Basic trading strategies 9.7. The role of the Clearinghouse (margin deposit) 10. Financial swaps <ul style="list-style-type: none"> 10.1. Definition of swap instrument 10.2. Types of swaps: <ul style="list-style-type: none"> 10.2.1. Interest rate swaps 10.2.2. Currency swaps 10.2.3. Commodity swaps 10.2.4. Credit default swaps 10.3. The role of financial swaps
Educational outcomes	<p>Knowledge:</p> <ul style="list-style-type: none"> 1. about basic types of derivative instruments

	<p>2. of how derivative instruments work 3. about trading strategies involving derivatives</p> <p>Skills:</p> <p>1. of developing and analyzing different strategies involving derivatives 2. of using derivatives in risk management</p> <p>Attitudes:</p> <p>1. ability to work and continue education and improve acquired skills and knowledge 2. the awareness of advantages and risks of investing in derivatives</p>
Form of the class	Lecture/workshop
Learning activities and teaching methods	Information lecture/Case study/Team work
Type of assessment	Credit (getting a pass expressed as a digit)
Assessment methods and criteria for this course	Written exam or project
Reading list	<p>1. D. A. Dubofsky, T. W. Miller, Derivatives: Valuation and Risk Management, Oxford University Press, 2002.</p> <p>2. J. C. Hull, Options, Futures, and Other Derivatives, 5th Edition, Prentice Hall, 2003.</p> <p>3. F. Taylor, Mastering Derivatives Markets, 2nd edition, Prentice Hall, 2000.</p> <p>4. Recommended websites on the Internet.</p>
Additional remarks	www.umcs.pl (search: Mamcarz)