



COURSE (MODULE) DESCRIPTION

Course title	Code
Finance I	

Staff	Department
Coordinator(s): Dr. Patrick Grüning Other(s):	Faculty of Economics and Business Administration

Study cycle	Course type
First (Bachelor's)	Compulsory

Form of implementation	Period of implementation	Language of instruction
Face-to-face (lectures, classroom tutorials) and self-study	Autumn semester	English

Requirements for student	
Prerequisites: Mathematical Methods (part I)	Additional requirements (if any): none

Number of ECTS credits	Student's workload	Contact hours	Individual work hours
5	144	38	106

Purpose of the course and competences developed
<p>The purpose of this course is to introducing students to the basic principles in finance. The topics taught cover:</p> <ol style="list-style-type: none"> 1. The valuation of firms, projects, and assets with and without risk 2. The determination of the riskiness of a firm via the Capital Asset Pricing Model (CAPM) 3. An introduction to market efficiency, capital structure, derivatives pricing, and agency problems <p>Students after this course will be able to assess typical real-world finance problems such as the valuation of investment projects or financial assets, analyzing stock market returns, and understanding problems arising through information asymmetries.</p> <p>As this course introduces finance as a field within economics and business administration, focus will be given to the intuition and understanding of basic principles instead of focusing on strictly formal analysis.</p> <p>The teaching methods involve lectures and tutorials. In the lecture, the introduction to finance will be provided, focusing on the theory of finance, empirical regularities, and intuition.</p> <p>In addition, the six tutorials will be used to discuss practical exercises that will either be demonstrated by the lecturer or be presented by students. The respective exercise sheets will be available before the tutorial and shall be prepared by the student prior to the tutorial session.</p> <p>Active participation and asking questions are motivated in both the lectures and the tutorials. Active participation in the tutorials is essential.</p>

Learning outcomes	Teaching methods		Assessment methods						
Have acquired knowledge in classical and modern theories of economics and finance and is able to apply them when analyzing economic problems.	Lectures and lecture notes, tutorials		Midterm exam (25 or 35%, 45 minutes)						
Appreciate the possibilities and the limits of scientific research methods when solving economic problems.	Lectures and lecture notes, tutorials		Final exam (65 or 75%, 90 minutes)						
Course themes	Contact / Individual work: time and assignments								
	Lectures	Tutorials	Seminars	Practical classes	Laboratory work	Practice	Contact hours	Individual work	Assignments
1. Introduction and basics	2						2	6	BMA, Ch. 1+2 Welch, Ch. 1+2
2. Calculation of net present value (NPV)	2						2	6	
3. Valuation of bonds and stocks	2	2					4	12	BMA, Ch. 3+4 Welch, Ch. 3+5
4. Net present value method vs. internal rate of return	1	2					3	6	BMA, Ch. 5 Welch, Ch. 4
5. Risk and return	6	4					10	30	BMA, Ch. 7-9 Welch, Ch. 6-10
6. Market efficiency	2						2	6	BMA, Ch. 13 Welch, Ch. 11-12
7. Capital structure	3	2					5	15	BMA, Ch. 17+18 Welch, Ch. 16-17
8. Introduction to derivatives and derivatives pricing	4	2					6	15	Hull, Ch. 13; BMA, Ch. 20+21
9. Introduction to agency problems	2						2	10	BMA, Ch. 12 Welch, Ch. 19
Review Sessions (one session after mid-term exam, final exam review during first week of spring semester)	2						2	0	---
Total	26	12					38	106	

Assessment strategy	Share in %	Time of assessment	Assessment criteria
Midterm exam (45 minutes)	25/35	After roughly half of the course	Written exam held before a lecture or tutorial. Potentially, a mixture of multiple choice questions and exercises that require calculations or concise answers. The share of the mid-term exam is 25% if the grade in the mid-term exam is worse than the final exam grade and 35% if better than the final exam grade.
Final exam (90 minutes)	75/65	Exam period	Written exam held in the exam period before Christmas. A collection of exercises that require calculations or concise answers. Midterm and final exams shall be assessed in the

			following way: - over 95%, or excellent: 10; - over 85%, or very good: 9; - over 75%, or good: 8; - over 65%, or fair: 7; - over 55%, or satisfactory: 6; - over 50%, or poor: 5. Under 50%, or unsatisfactory: 4, 3, 2, 1.	
Tutorial participation	Up to 0.5 additional grade points for the final grade	During tutorials	Students solving an exercise during the tutorial successfully in front of the class will be awarded with bonus grade points that will be added to the final grade, which is composed of the grade of the midterm exam and the grade of the final exam, as described above. Solving an exercise successfully implies writing the solution to the board and explaining to the audience how the exercise is solved.	
Author	Published in	Title	Issue No. or Volume	Publishing house or Internet site
Required reading				
Lecture notes and slides as well as online resources will be made available to all students.				
Ivo Welch	2017	Corporate Finance	4th edition	http://book.ivo-welch.info/read/
Richard A. Brealey; Stewart C. Myers; Franklin Allen (BMA)	2014	Principles of Corporate Finance	11th global edition	McGraw-Hill
Supplementary reading				
Stephen Ross; Randolph Westerfield; Jeffrey Jaffe	2012	Corporate Finance	10th edition	McGraw-Hill
Zvi Bodie; Alex Kane; Alan J. Marcus	2010	Investments	9th edition	McGraw-Hill
John C. Hull	2017	Options, Futures and Other Derivatives	10th edition	Prentice Hall