
Module Handbook

International Finance Master WiSe 16/17

Valid from: Wintersemester 2020/2021

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Description of Module

Code 103-001	Title of Module Financial Management
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Summarize and interpret concepts and differences in international accounting, management accounting and financial accounting. • Interpret and apply different concepts of modern financial management. • Recognize new problems in financial management, compare various methods and implement them in a suitable and effective way.
<p>Content</p> <p>Financial Management</p> <ul style="list-style-type: none"> • Management Accounting • Financial Modeling • Applied IFRS
<p>Teaching Forms</p> <p>Lectures and Practicals,</p>

Requirements for Participation

Knowledge, Skills, Competencies	Basics in accounting
Preparation for the Module	Online course "Financial Accounting" of Harvard Business School recommended. Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>The contribution of the module to sustainable development is the awareness that all company stakeholders must gain thorough insight into the economic development of companies based</p>

on international accounting standards. Especially in internationally operating companies, the consolidation of financial figures is a prerequisite for sustainable management. Furthermore, sustainable development demands transparent coverage of all internal processes and calculations.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (90 Minuten)	70 %
Schriftliche Arbeit (keine Einheit gewählt)	30 %

Organization of Course

Responsible for Module Prof. Dr. Daniela Fischer		
Further Persons Responsible for Module Prof. Dr. Dr. Dietmar Ernst, Mr Marco Koch		
Type of Module Pflicht: 1. Semester	Recurrence jedes Wintersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 7,00	Weekly Attendance 6,00
Workload 7,00 x 25 Stunden = 175,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 38,6 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-001-01	Management Accounting
103-001-02	Financial Modeling
103-001-03	Applied IFRS

Description of the Module Element

Code	Title of the Module Element
103-001-01	Management Accounting

Content Structure

Qualification Goals			
With respect to acquired knowledge, students shall be able to do the following:			
<ol style="list-style-type: none"> 1. summarize and interpret state-of-the-art concepts in management accounting and performance management 2. evaluate and manage overhead costs adequately by applying Traditional Costing as well as Activity Based Costing and interpreting the compiled information 3. support new product development according to market needs, particularly meeting the necessary price and cost targets by applying Target Costing 4. see the different management accounting and performance management concepts and tools in an overall context and understand their interdependences 			
With respect to acquired skills, students shall be able to do the following:			
<ol style="list-style-type: none"> 1. identify data relevant to management accounting and performance management 2. solve problems in theory and practice by applying the above mentioned concepts and tools 3. evaluate and interpret practical cases and derive conclusions independently 			
With respect to acquired competencies, students shall be able to do the following:			
<ol style="list-style-type: none"> 1. recognize practical business challenges in the areas of management accounting and performance management 2. apply and modify their knowledge to new and complex challenges 3. draw on and make use of adequate sources of information in order to solve these challenges 4. perform necessary calculations in the course of problem solving with the above mentioned concepts and tools 5. reflect the derived results critically and draw conclusion 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst		X	X
Sozial			X

Content
<u>Part 1: Focus on Decision Making</u>
Chapter 1: Managerial Accounting, the Business Organization, and Professional Ethics
Chapter 2: Introduction to Cost Behavior and Cost-Volume-Profit Relationships
Chapter 3: Measurement of Cost Behavior

<p>Chapter 4: Cost Management Systems and Activity-Based Costing</p> <p>Chapter 5: Relevant Information for Decision Making with a Focus on Pricing Decisions</p> <p>Chapter 6: Relevant Information for Decision Making with a Focus on Operational Decisions</p> <p><u>Part 2: Accounting for Planning and Control</u></p> <p>Chapter 7: Introduction to Budgets and Preparing the Master Budget</p> <p><u>Part 3: Product Costing (corresponds to part 4 in the textbook)</u></p> <p>Chapter 12: Cost Allocation</p> <p>Chapter 13: Accounting for Overhead Costs</p>
<p>Teaching Forms</p> <p>Lectures and Practicals</p>
<p>Teaching Methods</p> <p>Lectures, discussions, exercises, case analysis, group work.</p>
<p>Literature/Learning Materials</p> <p>Horngrén/Sundem/Stratton/Burgstahler/Schatzberg: Introduction to Management Accounting, 16th Global Edition, Pearson 2014, ISBN-13: 9780273790013</p>
<p>Specifics</p> <p>Animated PowerPoint-presentations, Document camera, Audience response system</p>

Organization of Course

<p>Weekly Attendance</p> <p>2,00</p>	<p>Division into Groups</p> <p>ja</p>	<p>Recommended Semester</p> <p>1 Semester</p>	<p>Language</p> <p>Englisch</p>
<p>Attendance / Contact Hours</p> <p>22,5 Std.</p>	<p>Preparation/Homework/Self-Study</p> <p>0,0 Std.</p>		<p>Time for Exercises/ Group Work</p> <p>0,0 Std.</p>

Description of the Module Element

Code	Title of the Module Element
103-001-02	Financial Modeling

Content Structure

<p>Qualification Goals</p> <p>Knowledge and skills in the subject:</p> <ul style="list-style-type: none"> • to discuss the principles of financial modeling and integrated corporate planning • to prepare a corporate plan with the help of financial modeling principles • to structure a business planning problem with modules using different Excel functions and Model Review functions. • to check the correctness of the corporate planning drawn up <p>Systemic knowledge, skills and competences:</p> <ul style="list-style-type: none"> • to combine different fields of accounting, planning and financial modeling to create self-developed solutions <p>Knowledge, skills and competences related to self-organisation:</p> <ul style="list-style-type: none"> • to solve guided case studies and to create a business plan independently • to control the own results independently • to organize independently the preparation and follow-up of the lecture in group work <p>Knowledge, skills and competences related to social competence:</p> <ul style="list-style-type: none"> • to work out solutions to the case studies or exercises in partner or small group work • to present results and conclusions to a professional auditorium and to discuss <table border="1" data-bbox="156 1350 1067 1592"> <thead> <tr> <th>Wissen</th> <th>Knowledge</th> <th>Skills</th> <th>Competencies</th> </tr> </thead> <tbody> <tr> <td>Fach</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>System</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td>Selbst</td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>Sozial</td> <td></td> <td>X</td> <td>X</td> </tr> </tbody> </table>				Wissen	Knowledge	Skills	Competencies	Fach	X	X	X	System	X	X	X	Selbst		X		Sozial		X	X
Wissen	Knowledge	Skills	Competencies																				
Fach	X	X	X																				
System	X	X	X																				
Selbst		X																					
Sozial		X	X																				
<p>Content</p> <ul style="list-style-type: none"> • The Top 10 Financial Modeling Standards • Case study "Business Plan" for a listed company in Excel • Planning assumptions • P&L planning • Balance sheet planning • Planning of the cash flow statement • Model review 																							
<p>Teaching Forms</p>																							

, Lectures and Practicals
Teaching Methods Lectures, case study, discussions, exercises, case studies, group work, presentations, project work
Literature/Learning Materials <ul style="list-style-type: none"> • Benninga, S.: Financial Modeling, MIT Press, 2008 • Ernst D., Häcker, J. (2017, editors): Financial Modeling - Business excellence in Financial Management, Corporate Finance, Portfolio Management and Derivatives, Basingstoke (England) and New York (US)
Specifics Overhead Projector, PowerPoint-presentations for the Case Study, Live-simulations, Excel sheets for the Case Study

Organization of Course

Weekly Attendance 2,00	Division into Groups ja	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-001-03	Title of the Module Element Applied IFRS
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Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- summarize and interpret concepts and differences in international accounting
- describe the concepts and role of revenue, expense, asset, liability and equity accounts in financial accounting
- give an overview of the presentation and disclosure components of financial statements
- explain significant deviations between IFRS and US GAAP
- set the current legal environment in relation to the audit approach of an accounting firm

With respect to acquired skills, students shall be able to do the following:

- demonstrate valuation and presentation of balance sheet asset and liability accounts
- evaluate and analyze entity information and identify data relevant to financial accounting and reporting
- interpret basic financial statement information like balance sheet, income statement and statement of cash flows
- report results of conversion to international accounting in writing in a (consolidated) financial statement format

With respect to acquired competencies, students shall be able to do the following:

- perform calculations of measurement and valuation of important financial statement positions
- compare IFRS vs. US GAAP or local accounting standards

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst			
Sozial			

Content

Content

1. Concept of International Accounting:

Capital market based history of US GAAP and IFRS, Standard setting bodies, Framework of international accounting (objective basic principles, Elements of F/S, Accounting policies, Subsequent events)

2. Presentation and disclosure of financial statements:

Balance sheet, Income statement, Statement of changes in Equity, Statement of cash flows ,
Notes to the financial statements (incl. Segment reporting), Interim financial reporting, Related
Parties disclosures

3. Recognition, measurement and valuation of financial statement positions

- Tangible assets (PPE, leases, non-current assets held for sale, discontinued operations)
- Goodwill and Intangible assets (R&D)
- Impairment
- Financial assets (business combinations, associates, joint ventures, financial instruments, cash)
- Inventories, construction contracts, revenue recognition (POC method etc.)
- Provisions, contingent liabilities
- Employee benefits, stock compensation
- Income taxes (incl. Deferred taxes)

4. Conversion process of a company to international GAAP (first time adoption of IFRS)

5. The audit approach of an international accounting firm

6. Summary: IFRS / US-GAAP comparison

7. Recent developments (i.e. analysis of financial statement restatements, development of IFRS / US GAAP, IFRS 15 and 16)

Teaching Forms

Lectures and Practicals

Teaching Methods

Lecture, discussions, exercises, case analysis

Literature/Learning Materials

Wiley (Wiley VCH Verlag GmbH & Co. KGaA, (2020): International Financial Reporting Standards (IFRS) 2019: English & German edition of the official standards approved by the EU (paperback)

Ernst & Young (Ernst & Young von John Wiley & Sons): International GAAP: Generally Accepted Accounting Practice under International Financial Reporting Standards (IFRS). 2020 (paperback)

Specifics

Board, PowerPoint-presentations, Case studies in word and excel, sample financial statements

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-002	Title of Module Financial Analysis
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Analyze and evaluate financial statement, bonds and stocks • apply modern instruments of corporate, bond and stock analysis • draw on and make use of adequate sources of information in order to assess and value companies, bonds and stocks
<p>Content</p> <p>Financial Analysis:</p> <ul style="list-style-type: none"> • Portfolio Management • Bond Analysis • Equity Analysis
<p>Teaching Forms</p> <p>Lectures and Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	Basics in accounting
Preparation for the Module	Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>Sustainable investment decisions demand careful and sophisticated financial analysis. They require in-depth knowledge of instruments in order to scrutinize different asset classes such as stocks or bonds. Furthermore, students need to possess the skills to analyze financial statements in order to assess the sustainability of investments.</p>
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Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (90 Minuten)	70 %
Referat/Präsentation (keine Einheit gewählt)	30 %

Organization of Course

Responsible for Module Prof. Dr. Serge Ragotzky		
Further Persons Responsible for Module Prof. Dr. Frank Andreas Schittenhelm, Dr. Christian Kurz		
Type of Module Pflicht: 1. Semester	Recurrence jedes Wintersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 8,00	Weekly Attendance 6,00
Workload 8,00 x 25 Stunden = 200,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 33,8 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-002-01	Portfolio Management
103-002-02	Bond Analysis
103-002-03	Equity Analysis

Description of the Module Element

Code 103-002-01	Title of the Module Element Portfolio Management
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Content Structure

Qualification Goals

With respect to this module, students shall be able to do the following:

- Implement and manage own wikifolios
- Make portfolio adjustments and optimizations under live conditions
- Understand how stock exchange trading under live conditions are done through the management of own wikifolios
- Understand the difference between active and passive portfolio management
- Understand the difference between fundamental and technical securities analysis
- Understand the difference between asset classes and investment instruments
- Ability to define own investment strategies (single asset class or multi asset) including investment objectives (risk/return), investment style (active/passive), investment philosophy (fundmantal/technical)
- Ability to present its own investment strategies and their results

Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			
Sozial			

Content

Live portfolio management experience through the use/creation/implementation of wikifolios.

Teaching Forms

Lectures and Practicals

Teaching Methods

Lectures, Discussions, Exercises

Literature/Learning Materials

- Lecturers own script
- Introduction presentation from Wikifolio

Specifics

Flipchart, PowerPoint-presentations, Internet resources

Organization of Course

Weekly Attendance	Division into Groups	Recommended Semester	Language
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2,00	ja	1 Semester	Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-002-02	Title of the Module Element Bond Analysis
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Content Structure

<p>Qualification Goals</p> <p>With respect to acquired knowledge, students shall be able to do the following:</p> <ul style="list-style-type: none"> • explain the features of different bond types • summarize the real world factors that influence the price of bonds • describe the difference between spot and forward interest rates • describe different risk measures for bonds • explain and compare different bond strategies <p>With respect to acquired skills, students shall be able to do the following:</p> <ul style="list-style-type: none"> • apply basic mathematical approaches for bond valuation • interpret different risk measures of bonds such as duration and convexity • implement different bond strategies • classify bond strategies with respect to their risk <p>With respect to acquired competencies, students shall be able to do the following:</p> <ul style="list-style-type: none"> • evaluate and analyze the inherent risk of bonds • apply bond analysis knowledge to solve complex problems in portfolio and risk management • analyze investment restrictions and apply suitable bond strategies 			
Wissen	Knowledge	Skills	Competencies
Fach		X	X
System		X	
Selbst		X	
Sozial		X	
<p>Content</p> <p>1. Bonds</p> <ul style="list-style-type: none"> • Features of a Bond; Valuation; Real World Factors <p>2. Risk Measures</p> <ul style="list-style-type: none"> • Duration; Convexity <p>3. Bond Strategies</p> <ul style="list-style-type: none"> • Cash Flow Matching; Barbell Strategy; Duration Matching; Duration-Gap Analysis; Riding the Yield Curve; Arbitrage Strategies 			
<p>Teaching Forms</p> <p>Lectures and Practicals</p>			

<p>Teaching Methods</p> <p>Lectures, lectures with exercises</p>
<p>Literature/Learning Materials</p> <p>Fabozzi: Bond Markets, Analysis and Strategies, Prentice Hall International</p> <p>Bodie/Kane/Marcus: Investments, McGraw-Hill</p> <p>Arnold: Corporate Financial Management, Prentice Hall</p> <p>Ross/Westerfield/Jordan: Fundamentals of Corporate Finance, Irwin McGraw-Hill</p>
<p>Specifics</p> <p>PowerPoint-presentations, Excel sheets for downloading</p>

Organization of Course

<p>Weekly Attendance</p> <p>2,00</p>	<p>Division into Groups</p> <p>ja</p>	<p>Recommended Semester</p> <p>1 Semester</p>	<p>Language</p> <p>Englisch</p>
<p>Attendance / Contact Hours</p> <p>22,5 Std.</p>	<p>Preparation/Homework/Self-Study</p> <p>0,0 Std.</p>		<p>Time for Exercises/ Group Work</p> <p>0,0 Std.</p>

Description of the Module Element

Code	Title of the Module Element
103-002-03	Equity Analysis

Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- describe the essential tools necessary for the job of an equity analyst, including capital market concepts, financial statement analysis, financial planning and valuation methods
- describe the main steps in financial planning and in corporate valuation
- understand the top down (economy-industry-company) approach to financial planning and forecasting
- discuss differences between discounted cash flow based models and relative valuations as well as advantages and disadvantages of these approaches
- explain one-stage and multiple-stage valuation models
- explain advantages and disadvantages of relative valuation approaches
- list and explain the impact of the most relevant macroeconomic drivers of corporate valuation

With respect to acquired skills, students shall be able to do the following:

- Be able to consistently derive a forecast of a company's future financial statements based on an analysis of reported financial data and on assumptions regarding macroeconomic conditions, industry structure, competition, etc.
- apply one-stage and multiple-stage discounted cash flow models
- construct risk-adjusted discount rates
- use earnings-based, book value-based, revenue-based and sector specific multiples to perform a relative valuation of a company
- derive theoretically justified multiples based on company fundamentals
- implement planning and valuation procedures in spreadsheet models
- analyze the expected impact of macroeconomic factors on corporate valuations

With respect to acquired competencies, students shall be able to do the following:

- independently perform an analysis and valuation of a potential equity investment
- identify the key drivers of the valuation of a company
- systematically derive an investment or disposal recommendation
- analyze and challenge proposals developed by others and identify the key drivers leading to the given investment recommendation

Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			

Sozial				
Content				
1. The purpose of Equity Analysis				
2. Financial Statement Analysis				
<ul style="list-style-type: none"> • The basics: financial analysis as a prerequisite for financial planning; Liquidity; Operating Performance; Risk Analysis; Adjustments to corporate accounts; Derivation of free cash flow (FCF) 				
3. Financial Planning and Forecasting				
<ul style="list-style-type: none"> • Technical aspects of the planning process (top-down planning; closed-loop planning using spreadsheet models) • Industry analysis and sales planning (Determinants of Industry unit sales and price levels; the industry life cycle; competition analysis) • External factors and longer-term growth (external factors affecting longer-term growth perspectives; modelling consistent long-term growth estimates: the DuPont system) 				
4. Valuation				
<ul style="list-style-type: none"> • Valuation approaches • Discounted cash flow valuation (one-stage, two-stage, three-stage models; approaches to modelling the terminal value; comparison of dividend-discount, FCF-to-equity, and FCF-to-firm models; determining the discount rate) • Relative Valuation (earnings-based, book value-based, revenue based and sector specific multiples; Definitional, descriptive, analytical and application tests of multiples) 				
5. Macroeconomic Aspects of Equity Analysis				
<ul style="list-style-type: none"> • Business Cycle and asset allocation; impact of macroeconomic factors on stock prices 				
Teaching Forms				
Lectures and Practicals				
Teaching Methods				
Lectures, discussions, exercises, case studies, group work				
Literature/Learning Materials				
<ul style="list-style-type: none"> • Brown, Keith C., Reilly, Frank K. (2009): Analysis of Investments and Management of Portfolios, 9th edition, South-Western • Damodaran, Aswath (2002): Investment Valuation, 2nd edition, New York: John Wiley • Benninga, Simon (2008): Financial Modelling, 3rd edition, Cambridge: MIT Press 				
Specifics				
PowerPoint-presentations, Excel spreadsheets, Overhead projector				

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-003	Title of Module Management Skills
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Recognize intercultural management and conflict management as an influential parameter in companies and organizations. • Act and react sensible and with appropriate sensitivity in groups, meetings, and 1:1 talks with managers and employees, also concerning gender, ethnic background, or other diversity criteria. • Apply international management knowledge to develop skills and operational abilities to manage intercultural conflict appropriately, effectively, satisfactorily and productively.
<p>Content</p> <p>Management Skills</p> <ul style="list-style-type: none"> • Strategic Management • Intercultural and Conflict Management • Project
<p>Teaching Forms</p> <p>Block course, Lectures and Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	Knowledge, comprehension, skills and competences from the first study. Willingness and curiosity to ask questions and to discuss topics with general arguments as well as with personal opinions and experience.
Preparation for the Module	Pre-reading of the recommended literature, preparation of sessions with given literature

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Management skills are the basis for responsible and sustainable management decisions. Social sustainability in companies is one of the key success factors in a knowledge and technology driven society and can be regarded as a source for sustainable HR development programs and innovation processes. Especially in an international context, intercultural management and conflict management contribute to the long-term success of a globally operating company. International teams perform successfully when they are aware of the intercultural differences of their team members.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Schriftliche Arbeit (keine Einheit gewählt)	25 %
Referat/Präsentation (keine Einheit gewählt)	75 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module Ms Vera Naumann; Mr Matthias Pohl		
Type of Module Pflicht: 1. Semester	Recurrence jedes Wintersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 7,00	Weekly Attendance 6,00
Workload 7,00 x 25 Stunden = 175,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 38,6 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-003-01	Strategic Management
103-003-02	Intercultural Management and Conflict Management
103-003-03	Project

Description of the Module Element

Code 103-003-01	Title of the Module Element Strategic Management
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Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to:

- Understand the phases of the strategic management process
- Understand the targets of the different phases of the strategic management process
- Understand the different tools useable during the different phases of the strategic management process

With respect to acquired skills, students shall be able to:

- Evaluate and analyse given case examples of company strategies
- Implement tools within the strategic management process
- Present their results convincingly
- Plan and conduct a strategic management project individually and without support

With respect to acquired competencies, students shall be able to:

- Apply skills developed in the course "Strategic Management"
- Structure a strategic management project and implement the single process phases
- Discuss and criticize existing strategic management approaches and tools
- Comprehensively present their research results in a professional way

Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			
Sozial			

Content

The lecture "Strategic Management" comprises the theoretical background of the strategic management process, introduces tools which are used in the single phases of the process, gives case examples and executes group work.

Teaching Forms

Teaching Methods

Lectures, discussions, group work with presentations

Literature/Learning Materials

Script Literature

Specifics

Board, Beamer

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-003-02	Title of the Module Element Intercultural Management and Conflict Management
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Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- conceptualize cultural dimensions as helpful guidance for intercultural interaction
- accept conflict management skills as personal skills that can be enhanced
- describe various traits, cultural codes and preferences of themselves and other individuals
- respect these criteria when giving and receiving feedback
- name and use criteria to describe ego-states and communication styles
- understand group dynamics and systemic perspectives of conflicts
- name current organizational, economical, or political challenges to apply these contents

With respect to acquired skills, students shall be able to do the following:

- discuss individual cultural upbringing and preferences and their impact on work and communication
- be aware of personal and intercultural sources for conflicts
- understand and drive personal growth as a lifelong learning process
- give and receive constructive feedback
- be aware of, reflect and use their theoretical understanding in their decision making
- act goal-oriented in communication and conflict situations

With respect to acquired competencies, students shall be able to do the following:

- reflect their individual human resources, assets, cultural and personal traits
- distinguish between unfiltered authentic behaviour, selective authenticity, and manipulation
- use their awareness of cultural dimensions in social interaction and in managing their tasks
- work towards sustainable conflict solutions
- present creative ideas for leadership, development and conflict resolution
- reach out to others in order to enhance the quality of work and communication

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	
Selbst	X	X	X
Sozial	X	X	X

Content

Management skills are to a great extent **personal social skills**.

If one's personal experience is **conceptualized** and compared with typical **patterns**, this experience becomes a rich source for one's managerial practice and conflict competence, because it is no longer perceived just as personal and situative, but one can generalize and draw conclusions for other situations to come. These patterns can be **cultural**, they can have to do with **gender** as well as with **group dynamics** or the typical **stages** in groups, or **social systems**. Again, the open and critical awareness towards one's own experience is a necessary foundation for all theoretical knowledge which can only be applied sensibly if this awareness is developed in the person.

Special tools help to **recognize, analyze and shape one's communication** in a goal-oriented way, starting with personal feedback to an employee or colleague (or receiving such feedback) up to giving directions when assigning a task to a group member. Leadership behaviour mostly consists in verbal communication, such as managing tasks, giving praise or encouraging someone. A manager who senses the fine line between condescending to someone or being an inviting, open minded and encouraging counterpart, will more often pick the **appropriate** tone for a given **person** from a distinct **cultural background** in a certain **situation** with a relevant **context**. The same applies for facilitating and moderating discussions.

Teaching Forms

Teaching Methods

Introductions, discussions, exercises, learning team, case studies, role play, tests, group work, presentations. Students are encouraged to bring in their own personal questions, opinions and arguments.

Literature/Learning Materials

Eric Berne: Games People Play: The Psychology of Human Relations. – Originally 1964, many later editions, e. g. Grove Press 1978

Julia Middleton: Beyond Authority. Leadership in a changing world. – Palgrave Macmillan 2007

Jim Kouzes, Barry Posner: Leadership Challenge. The leadership practices inventory. – San Francisco 2007

Carl R. Rogers: On Becoming a Person. A Therapist's View of Psychotherapy. – Boston 1961 (p. 183-196)

Pavan Sukhdev: Corporation 2020. Transforming business for tomorrow's world. – Washington, DC 2012

Nir Eyal: Hooked. How to build habit-forming products. – New York 2014

Thomas Piketty: Capital in the 21st century. – Cambridge, Mass. and London, 2014

Ta-Nehisi Coates: We were eight years in power. An American tragedy. – London 2018

Michelle Obama: Becoming. – New York 2018

Rutger Bregman: Utopia for realists and how we get there. London, New York 2017

Steven Pinker: Enlightenment now. The case for reason, science, humanism, and progress. – New York 2018

Elinor Greenberg: Borderline, narcissistic and schizoid adaptations. The pursuit of love, admiration, and safety. – New York 2016 (relevant: chapters about narcissism)

Katharina Zweig: Ein Algorithmus hat kein Taktgefühl. Wo künstliche Interelligenz sich irrt, warum uns das betrifft und was wir dagegen tun können. – München 2019

Specifics

Flipchart, PowerPoint-presentations, photo protocols of all sessions, printed text excerpts, exercise sheets, PDF-files as text samples

Organization of Course

Weekly Attendance 2,00	Division into Groups ja	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-003-03	Title of the Module Element Project
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Content Structure

Qualification Goals

The involvement of students in professors' research projects as well as in practical projects between universities and companies or other organisations creates the transfer between study, independent learning and practical implementation. The students learn the methodology of scientific work, quantitative methods, goal-oriented teamwork as well as the consideration of expectations and framework conditions on the part of the project partners.

Examples of projects:

- Cooperation in the research project of a professor
- Collaboration in a joint project between a professor and a company

Wissen	Knowledge	Skills	Competencies
Fach	X	X	
System	X	X	
Selbst	X	X	X
Sozial	X	X	X

Content

Research projects:

- Methods of scientific work
- Methods of quantitative finance
- Approach and organization of research projects
- Empirical work: Conception, implementation, evaluation
- Preparation of a scientific seminar paper

Practice project:

- Project Management
- Technical content according to project content
- Processing of subprojects
- Presentation of the project results

Teaching Forms

Block course, Lectures and Practicals

Teaching Methods

Lectures, peer teaching, case study, discussions, exercises, group work, presentations, project work

Literature/Learning Materials

depends on the project

Specifics

PowerPoint-presentations for the Case Study, Live-simulations, Excel sheets for the Case Study

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-014	Title of Module Quantitative Research
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Explain the statistical and mathematical concepts underlying financial theory and econometric modelling • Solve quantitative problems in finance using modern IT-tools and econometric analysis. • Evaluate the results, estimation and hypothesis testing of quantitative models and econometric models.
<p>Content</p> <p>Quantitative Research</p> <ul style="list-style-type: none"> • Quantitative Risk Management with Matlab • Designing and Publishing Empirical Research in Business
<p>Teaching Forms</p> <p>Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	Basics in mathematics and statistics
Preparation for the Module	<p>Online course "Quantitative Methods" of Harvard Business School recommended.</p> <p>Pre-reading of the recommended literature.</p>

Practicability of Module

Relationship to other Modules within this Study Course	<p>Students can apply acquired knowledge, skills and competencies in following other courses:</p> <ul style="list-style-type: none"> • Financial Management • Financial Analysis • Management Skills • Applied International Corporate Finance • Applied Quantitative Corporate Finance • Research in Empirical Finance • Derivatives and Financial Engineering • Innovation in the Financial Industry
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	As well as all other programmes in Finance and Business Administration
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>Quantitative Research provides the more technical skills for sustainable management decisions. Without the necessary quantitative background managers are unable to make profound und responsible decisions. Sustainable development requires quantitative skills to reproduce the complex reality in a simplified way. They provide feasibility and decision support, reduced risk, additional insights and knowledge gain.</p>

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Mündliche Prüfung (10 Minuten)	50 %
Schriftliche Arbeit (keine Einheit gewählt)	50 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module Prof. Dr. Anja Blatter, Prof. Dr. Carsten Herbes		
Type of Module Pflicht: 1. Semester	Recurrence jedes Wintersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 8,00	Weekly Attendance 4,00
Workload 8,00 x 25 Stunden = 200,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 45,0 Std. / 22,5 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-014-001	Quantitative Risk Management with Matlab
103-014-002	Designing and Publishing Empirical Research in Business

Description of the Module Element

Code 103-014-001	Title of the Module Element Quantitative Risk Management with Matlab
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Content Structure

Qualification Goals

Students know the risks that have to be managed by financial institutions as well as methods to decrease the individual financial risks and the regulatory framework. Moreover, they are able to apply techniques to measure risk and conduct calculations via Matlab.

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	
Selbst	X	X	
Sozial	X	X	

Content

1. Sources of financial risks
 - SpeichernMarket risk; Credit Risk; Insurance Risk, Operational Risk
2. Introduction to Matlab
3. Risk Handling
 - Risk Management Cycle
 - Regulation
4. Risk Measures
 - Value at Risk; Expected Shortfall; Coherent Measures of Risk; Backtesting
5. Capital Requirement
 - Regulation; A Standardized Approach; Internal Rating Based Models
6. Probability of default
 - External credit ratings; internal credit ratings; Merton's model; concept of copulas
7. Stress testing

Teaching Forms

Teaching Methods

Students are invited to actively participate in the lecture. Therefore, activating methods are used. In addition, the students are encouraged to work on practical applications using suitable computer programs such as EXCEL and MATLAB.

Literature/Learning Materials

Lecture notes are provided. Theory, exercises and case studies are included in the lecture notes as well as enough space to fill in derivations and solutions to exercises.

Literature:

McNeil, A. J., Frey, R. und Embrechts, P.: Quantitative RiskManagement: Concepts, TechniquesandTools, Princeton University Press, 2015.

Hull, J.: Risk Management and Financial Institutions, Wiley, 2015

Specifics

Combination of lecture and intensive coaching in MATLAB coding.

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-014-002	Title of the Module Element Designing and Publishing Empirical Research in Business
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Content Structure

Qualification Goals

Students are able to:

- successfully plan their research (e.g. empirical master thesis) as a project
- to find the relevant (also international) literature, to read it critically and to use it productively in their research work
- select the appropriate empirical methodology for their research questions and their research object
- write according to the conventions in the scientific community
- use IT tools such as literature databases or the reference management program Citavi effectively and efficiently
- better assess the working methods and conditions of scientific research projects and thus to obtain suggestions for a possible scientific career at a later date
- prepare an exposé on their research work

Wissen	Knowledge	Skills	Competencies
Fach			
System	X	X	X
Selbst		X	X
Sozial		X	X

Content

- Finding and reading scientific literature
- Writing a literature review and identifying a research gap
- Defining a research question
- Developing hypotheses
- Choosing an empirical method
- Publishing research results

Teaching Forms

Practicals

Teaching Methods

- weekly lecture with exercises
- students prepare an individual research exposé
- bi-weekly coaching sessions structured by a milestone plan (students prepare first draft for each milestone in a team of two people, but submit individual research exposés which are also graded individually)

Literature/Learning Materials

Bryman, Alan and Bell, Anna: Business research methods, 4th edition, Oxford: Oxford University Press, 2015

Saunders, Mark, Lewis, Philip and Thornhill, Adrian: Research methods for business students, 7th edition, London: Financial Times Prent., 2015

Specifics

Combination of lecture and intensive small-group coaching

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 1 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-005	Title of Module Applied International Corporate Finance
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Summarize and interpret the reasons and success factors of applied international corporate finance. • Evaluate and analyze motives for corporate acquisitions and corporate disposals and set up appropriate financial acquisition financings. • Recognize practical business challenges in the areas of applied international corporate finance.
<p>Content</p> <p>Applied International Corporate Finance:</p> <ul style="list-style-type: none"> • Mergers and Acquisitions • Private Equity & Acquisition Financing • IPO & Investor Relations
<p>Teaching Forms</p> <p>Lectures and Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	<p>Knowledge, comprehension, skills and competences from following course units:</p> <ul style="list-style-type: none"> • Financial Management • Financial Analysis • Management Skills • Quantitative Research
Preparation for the Module	Pre-reading of the recommended literature

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Applied international corporate finance shows which growth strategies exist and how companies finance their expansion plans. Growth provides chances, but also contains substantial risks. Sustainable development of companies requires a sustainable financing with equity and debt in order to reduce the risks of a hazardous expansion.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (120 Minuten)	83 %
Referat/Präsentation (keine Einheit gewählt)	17 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module Ms Crusen, Mr Erdle, Mr Prexl, Mr Baisch, Mr Schwendemann, Mr Kofler		
Type of Module Pflicht: 2. Semester	Recurrence jedes Sommersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 7,00	Weekly Attendance 6,00
Workload 7,00 x 25 Stunden = 175,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 38,6 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-005-01	Mergers & Acquisitions
103-005-02	Private Equity & Acquisition Financing
103-005-03	IPO & Investor Relations

Description of the Module Element

Code	Title of the Module Element
103-005-01	Mergers & Acquisitions

Content Structure

Qualification Goals			
<p>With respect to acquired knowledge, students shall be able to do the following:</p> <ul style="list-style-type: none"> • Summarize and interpret the reasons and success factors of M&A (including PMI). • Give an overview of the main milestones of the M&A-process. • Derive main ideas of business alliances as alternatives to M&A. • Set M&A in relation to other corporate finance transactions like Going Public and Private Equity. <p>With respect to acquired skills, students shall be able to do the following:</p> <ul style="list-style-type: none"> • Ultimately be enabled to work in corporate departments being involved in M&A- and PMI -projects as well as advisors in M&A (e.g. investment banking, strategy consulting) after having finished their master education. • Evaluate and analyze motives for corporate acquisitions and corporate disposals. • Implement strategies for corporate acquisitions and corporate disposals applying the above mentioned milestones of the M&A-and PMI-process. • Analyze and interpret practical M&A-cases and derive conclusions for the business practice independently. • Present results of the M&A milestones convincingly. • Set up an integration strategy. <p>With respect to acquired competencies, students shall be able to do the following:</p> <ul style="list-style-type: none"> • Apply and modify their knowledge to real M&A -transactions (via case-studies). • Organize complex M&A-transactions on a strategic and financial basis. • Structure M&A-milestone applying adequate legal documents. • Recognize practical business challenges in the areas of M&A. • Creatively develop a M&A- and PMI-strategy for buyers and sellers of corporate assets and corporate shares. • Criticize the result of M&A strategies in business practice. • Combine interdisciplinary knowledge (intercultural and conflict management as well as legal issues) in order to solve integration problems of an acquired entity. • Develop alternative solutions for corporate acquisitions and corporate disposals and give recommendations to clients. • Comprehensively present solutions to clients and defend them. 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X

System	X	X	
Selbst	X	X	X
Sozial	X	X	X

Content

Why Mergers & Acquisitions?

- The Term Mergers & Acquisitions; Reasons and Success Factors of M&A; The Process of M&A

Initial Phase

- Pitch; Choice of Process; Candidate Screening and Selection; Advisers; Mandate Letter; Confidentiality Agreement

Contacting Interested Parties

- Documentation (Information Memorandum); Letter of Intent

Financial Aspects of M&A

- Due Diligence

Legal Aspects in the M&A Sales Process

- How a Negotiated Deal takes place; Purchase Agreement

Post-Merger Integration (PMI)

- Key Issues; Integration Planning, Project- and Change Management in PMI Projects

Teaching Forms

Lectures and Practicals

Teaching Methods

Lectures, Case Studies, Group Presentations, Discussions, Exercises,

Literature/Learning Materials

- Bruner, R. F. (2004); Applied Mergers&Acquisitions, Hoboken, John Wiley & Sons, Inc.
- DePamphilis, D. (2001), Mergers, Acquisitions, and other Restructuring Activities, San Diego: Academic Press
- Ernst, D., Häcker, J. (2007), Applied International Corporate Finance, Vahlen, Munic
- Weston, J.F., J.A. Siu & B.A. Johnson (2001), Takeovers, Restructuring, and Corporate Governance, 3rd ed., Upper Saddle River, NJ: Prentice Hall

Specifics

board, overhead projector, PowerPoint presentations

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
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Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.	Time for Exercises/ Group Work 0,0 Std.
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Description of the Module Element

Code	Title of the Module Element
103-005-02	Private Equity & Acquisition Financing

Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- Give an overview of private equity financing and acquisition financing.
- See private equity and acquisition financing in context with other corporate finance transactions like IPO and mergers & acquisitions.
- Set private equity in relation to equity financing over organized capital markets.
- Summarize and present the different goals of equity and debt provider.
- Describe in their own words the most important financial instruments of equity financing, mezzanine financing and debt financing.
- Derive main ideas of LBO transactions.
- Ultimately be enabled on this basis to act as a junior in a private equity company and in an acquisition financing department after finishing their master education.

With respect to acquired skills, students shall be able to do the following:

- Have the ability to plan, conduct, finance and monitor an investment of a private equity company.
- Implement strategies for funding and organising a private equity company.
- Be able to analyze and identify promising investment opportunities and derive conclusions for the private equity company independently.
- Demonstrate how LBOs can be financed by debt.
- Present results of the investment process convincingly.
- Act as a reliable support and private equity manager to the top-management.

With respect to acquired competencies, students shall be able to do the following:

- Structure private equity investments from a financial, tax and legal perspective.
- Organize the investment process and exit based on a medium-term strategy.
- Recognize practical business challenges when financing companies by equity.
- Creatively develop an IPO strategy for issuers.
- Apply and modify their knowledge to real investment opportunities of private equity companies.
- Criticize the business ethics of financial investors focussing on their medium-term investment horizon.
- Value investment opportunities using specific valuation methods like multiples approach and IRR approach.
- Draw on and make use of adequate sources of banks in order to set up acquisitions financing models.

- Develop alternative financial models for companies looking for a private equity and debt financing.
- Comprehensively present different financial concepts to clients and defend them in argument.

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst	X	X	
Sozial	X	X	

Content

Part 1: Private Equity

- What is private equity all about? Definitions; Case Study: Private Equity Ltd. acquires Packaging Group; Motives for private equity financing; Types of investments
- Who drives private equity? Bidder groups for equity capital The role of banks in the private equity business Investors in private equity
- How are private equity companies organised? Separation of fund and management Subsidiaries Management-, control- and advisory organs Inner organisation
- Investment contract Basic types and significant parts of the contract Adoption of existing contracts, important side contracts and covenants Project-oriented milestones Participation in advisory and control organs
- How is private equity done? Milestones of a private equity process Organizational milestones Project-oriented milestones Case Study: Private Equity Ltd. acquires Packaging Group

Part 2: Acquisition Financing

- What makes acquisition-financing special? Definition; The challenges of acquisition financing; Acquisition financing vs. buy-out / buy-in financing
- How does acquisition financing work? Functionality of Leveraged Buy-Outs; Exploiting the Leverage-Effect; Improvement of cash-flows; Improvement of company valuation; Integral parts of successful Leveraged Buy-Outs
- How to structure an acquisition? Acquisition financing - structuring the project under company law; Asset-Deal vs. Share-Deal; Acquisition financing - structuring the financing tools
- How to determine the financial structure of an acquisition financing? Determination of the debt service ability; Acquisition financing - role of equity capital; Acquisition financing - role of outside capital; Mezzanine capital

Teaching Forms

Lectures and Practicals

Teaching Methods

Lectures, Exercises, Discussions, case studies

<p>Literature/Learning Materials lecturer's script</p>
<p>Specifics Board, overhead projector, PowerPoint presentations</p>

Organization of Course

<p>Weekly Attendance 2,00</p>	<p>Division into Groups nein</p>	<p>Recommended Semester 2 Semester</p>	<p>Language Englisch</p>
<p>Attendance / Contact Hours 22,5 Std.</p>	<p>Preparation/Homework/Self-Study 0,0 Std.</p>		<p>Time for Exercises/ Group Work 0,0 Std.</p>

Description of the Module Element

Code	Title of the Module Element
103-005-03	IPO & Investor Relations

Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- Give an overview of IPO and investor relations.
- See IPO and investor relations in context with other corporate finance transactions like IPO and mergers & acquisitions.
- Set private equity in relation to private equity financing, company valuation and mergers & acquisitions.
- Summarize and present the different goals of equity investors.
- Describe in their own words the most important milestones in the IPO process and in the communication with equity investors.
- Derive main ideas of IPOs and investor relations.
- Ultimately be enabled on this basis to act as a junior in equity capital markets department after finishing their master education.

With respect to acquired skills, students shall be able to do the following:

- Have the ability to plan, conduct, and monitor an IPO process in an investment bank.
- Be able to analyze and identify promising IPO candidates and derive conclusions for the equity capital markets department of an investment bank independently.
- Demonstrate how a professional communication strategy can be developed with retail and institutional investors..
- Present results of the IPO process and the communication strategy of a listed company convincingly.
- Act as a reliable IPO and investor relation manager to the top-management.

With respect to acquired competencies, students shall be able to do the following:

- Structure the IPO process from a financial, tax and legal perspective.
- Organize the IPO and an d investor relation process based on a long-term strategy.
- Recognize practical business challenges when financing companies on the stock exchange.
- Creatively develop an IPO strategy for issuers.
- Apply and modify their knowledge to real investment opportunities of retail and institutional investors.
- Criticize the business ethics of retail and institutional investors investing in listed companies.
- Determine the issue price using specific valuation methods like multiples approach.
- Draw on and make use of adequate sources of banks (for instance bloomberg) in order to set up a IPO specific valuation model.
- Develop alternative financial models for companies looking for equity investments.

- Comprehensively present different communication concepts to retail and institutional investors and defend them in argument.

Wissen	Knowledge	Skills	Competencies
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Content

Part IPO

- Why Initial Public Offering (IPO)?: Definition, reasons, global IPO market, history, pros and cons, case study
- Key factors of a successful IPO: Pre-IPO strategy, business plan, equity story, time table, governance, financial reporting, issue concept, excursus ICO
- Valuation: Peergroup, multiples
- Placement process I: Syndicate, structure, research, marketing
- Placement process II: Pricing, allocation, fees, designation, stabilization
- Documentation: Beauty contest, consultants, advisors, due diligence, prospectus, comfort letter, agreements
- Post IPO obligations and Investor Relations activities

Part Investor Relations

- What is Investor Relations?
- Role and Target of Investor Relations
- IR Environment; Managing Expectations; Objectives of Investor Relations
- Target Groups
- Communication Tools
- Do we need IR?

Teaching Forms

Lectures and Practicals

Teaching Methods

Lectures, Discussions, Exercises

Literature/Learning Materials

lecturer's script

Specifics

PowerPoint presentations

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-006	Title of Module Applied Quantitative Corporate Finance
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Set company valuation in perfect capital markets and imperfect capital markets in relation to other corporate finance topics like mergers & acquisitions, going public and private equity. Furthermore, they should also be able to apply the quantitative content from other lectures. • Interpret the results of the company valuation on perfect and imperfect capital markets and derive conclusions for corporate finance transactions independently. • Apply and combine knowledge and skills from different course units to company valuation
<p>Content</p> <p>Applied Quantitative Corporate Finance:</p> <ul style="list-style-type: none"> • Company Valuation • Tutorial: Company Valuation • Corporate Finance on Imperfect Capital Markets
<p>Teaching Forms</p> <p>Lectures and Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	<p>Knowledge, comprehension, skills and competences from following course units:</p> <p>Quantitative Finance & Econometrics</p>
Preparation for the Module	Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>Applied quantitative finance deals with valuation instruments and how to apply them on imperfect capital markets. Models of perfect capital markets ignore important risk components and can</p>

therefore lead to wrong decisions and endanger the sustainable development of companies.
The combination of risk management and corporate finance should lead to an adequate representation of all relevant risk groups and their interaction.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (120 Minuten)	100 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module		
Type of Module Pflicht: 2. Semester	Recurrence jedes Sommersemester	Duration 1 Semester
Admission Criteria	ECTS Points 8,00	Weekly Attendance 6,00
Workload 8,00 x 25 Stunden = 200,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 33,8 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-006-01	Company Valuation
103-006-02	Tutorial: Company Valuation
103-006-03	Corporate Finance on Imperfect Markets

Description of the Module Element

Code	Title of the Module Element
103-006-01	Company Valuation

Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- Give an overview of the main valuation methods
- Set company valuation in relation to other corporate finance topics like Mergers & Acquisitions, Going Public and Private Equity.
- Relate corporate planning to corporate valuation and to describe the linkages in their own words.

With respect to acquired skills, students shall be able to do the following:

- critically evaluate the results of the corporate valuation and to clarify any differences.
- interpret the results of the corporate valuation and to independently draw conclusions for corporate finance transactions.
- review the structure of the valuation model and the results of the corporate valuation with the help of a model review.

With respect to acquired competencies, students shall be able to do the following:

- transfer the results from the corporate valuation to other modules such as financial management, portfolio management and derivatives and to combine them with these modules.
- master theoretical and empirical challenges of corporate valuation.
- apply their knowledge to specific valuation projects and to adjust it to actual valuation situations.
- critically challenge the assumptions, algorithms and results of every valuation approach.
- present and defend the valuation results in front of clients.

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	
Selbst	X	X	X
Sozial	X	X	

Content

In the class "Company Valuation" students value a DAX listed company based on the business model the students created in the first semester.

- Overview of the Methods of Company Valuation
- Discounted Cash Flow Method
- WACC Approach

- APV Approach
- Equity Approach
- Multiples
- Trading Multiples
- Transaction Multiples
- Acquisition Financing

Teaching Forms

Lectures and Practicals

Teaching Methods

Lectures, case study, discussions, exercises, group work, project

Literature/Learning Materials

Ernst D., Häcker, J. (2017, editors): Financial Modeling - Business excellence in Financial Management, Corporate Finance, Portfolio Management and Derivatives, Basingstoke (England) and New York (US).

Specifics

The students evaluate the company for which they have prepared a business plan in Financial Modeling in the first semester. The students carry out the valuation using their own Excel model.

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-006-02	Title of the Module Element Tutorial: Company Valuation
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Content Structure

<p>Qualification Goals</p> <p>With respect to acquired skills, students shall be able to do the following:</p> <ul style="list-style-type: none"> • use their knowledge about planning and valuation methods to develop a professional standard model for corporate valuation which incorporates the principles of financial modeling. • obtain the data necessary for a corporate valuation from information providers such as Bloomberg or Thomson Reuters and to process the data. • independently structure complex tasks in corporate valuation and to develop independent modules to solve these tasks. <p>With respect to acquired competencies, students shall be able to do the following:</p> <ul style="list-style-type: none"> • manage a project in the field of corporate valuation and to develop proprietary solutions in a team of valuation experts. • compile a transparent and comprehensive documentation of assumptions and methods for a given valuation project. • structure the process of corporate valuation and to apply the standards of professional financial modeling. • master theoretical and empirical challenges of corporate valuation. 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	
Selbst	X	X	X
Sozial	X	X	
<p>Content</p> <p>For the content, please refer to the lecture Company Valuation</p>			
<p>Teaching Forms</p>			
<p>Teaching Methods</p> <p>Lectures, case study, discussions, exercises, group work, project</p>			
<p>Literature/Learning Materials</p> <p>Ernst D., Häcker, J. (2017, editors): Financial Modeling - Business excellence in Financial Management, Corporate Finance, Portfolio Management and Derivatives, Basingstoke (England) and New York (US).</p>			
<p>Specifics</p>			

Laptops, beamer, board, overhead projector, MS Excel, MS PowerPoint

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-006-03	Title of the Module Element Corporate Finance on Imperfect Markets
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Content Structure

<p>Qualification Goals</p> <ul style="list-style-type: none"> • The students know the differences between perfect and imperfect capital markets and can apply them to current issues. • The students know the peculiarities of imperfect capital markets and can apply them in models. • The students implement different approaches of imperfect capital markets in financial models. • The students develop and discuss new models to solve current problems. • Students can independently apply complex models. 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst	X	X	X
Sozial	X		
<p>Content</p> <ul style="list-style-type: none"> • Risk Management in Corporate Finance • Theories and models for imperfect capital markets • Preparation of a business plan with company-specific risks • Risk aggregation with Monte Carlo simulation • Valuation of companies in imperfect capital markets 			
<p>Teaching Forms</p>			
<p>Teaching Methods</p> <p>Lectures, case study, discussions, exercises, group work, project</p>			
<p>Literature/Learning Materials</p> <ul style="list-style-type: none"> • Ernst D., Häcker, J. (2017, editors): Financial Modeling - Business excellence in Financial Management, Corporate Finance, Portfolio Management and Derivatives, Basingstoke (England) and New York (US) • Case Study Financial Engineering in Risk Management • Case Study Company valuations for professionals 			
<p>Specifics</p> <p>The students work on case studies and use different software solutions to solve them.</p>			

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-015	Title of Module Research in Empirical Finance
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Explain the statistical and mathematical concepts underlying financial theory and predictive analytics such as linear regression, multiple regression as well as times aeries analysis and forecasting • Solve quantitative problems in finance using modern IT-tools and econometric analysis. • Evaluate the results, estimation and hypothesis testing of quantitative models and econometric models. • Prepare, present and critically discuss the results of their own empirical research.
<p>Content</p> <ul style="list-style-type: none"> • Finding and reading scientific literature • Writing a literature review and identifying a research gap • Defining a research question • Developing hypotheses • Instruments of quantitative research • Quantitative research with Matlab and other software tools
<p>Teaching Forms</p>

Requirements for Participation

Knowledge, Skills, Competencies	In-depth knowledge of mathematics and statistics
Preparation for the Module	Online course "Quantitative Methods" of Harvard Business School recommended. Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Empirical Research provides the empirical background for sustainable management decisions. Without the necessary quantitative background managers are unable to make profound und responsible decisions. Sustainable development requires quantitative skills to reproduce the complex reality in a simplified way. They provide feasibility and decision support, reduced risk, additional insights and knowledge gain.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Schriftliche Arbeit (keine Einheit gewählt)	50 %
Klausur (60 Minuten)	50 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module Prof. Dr. Blatter		
Type of Module Pflicht: 2. Semester	Recurrence jedes Sommersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 7,00	Weekly Attendance 4,00
Workload 7,00 x 25 Stunden = 175,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 45,0 Std. / 25,7 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-015-001	Predictive Analytics
103-015-002	Seminar: Empirical Finance

Description of the Module Element

Code 103-015-001	Title of the Module Element Predictive Analytics
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Content Structure

<p>Qualification Goals</p> <p>In this lecture, students learn to independently understand, present and discuss methods in predictive analytics and its applications in finance. Moreover, students are able to apply basic theory in predictive analytics to issues in the financial sector. In addition, the module promotes students' presentation and discourse skills and prepares them for their final thesis.</p>			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	
Selbst	X	X	
Sozial	X	X	
<p>Content</p> <p>1. Linear Regression (Least Square Method; Coefficient of determination; Model assumptions; Testing of Significance; Using the estimated regression equation for estimation and prediction; Matlab solution; Case Study)</p> <p>2. Multiple Regression (Least Square Method; Multiple coefficient of determination; Model assumptions; Testing of Significance; Using the estimated regression equation for estimation and prediction)</p> <p>3. Times Series Analysis and Forecasting (Time Series Patterns; Forecast Accuracy; Moving Average and Exponential Smoothing; Trend Projection; Seasonality and Trend; Time Series Decomposition)</p>			
<p>Teaching Forms</p>			
<p>Teaching Methods</p> <p>Interactive lecture, group work, peer teaching, presentation, intense coaching in Matlab coding.</p>			
<p>Literature/Learning Materials</p> <p>Anderson, D.R., Sweeney, D.J., Williams, T.A., Camm, J.D., Cochran, J.J., Statistics for Business and Economics, South-Western Cengage, 2020</p>			
<p>Specifics</p> <p>Preparation of theory sessions and respective applications in finance in groups. Limited participants (max. 4 persons), registration and allocation to groups at the end of the previous semester, independent preparation of theory, developing and holding your own session, ongoing consultation and advice during the processing phase, attendance obligation at all sessions.</p>			

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-015-002	Title of the Module Element Seminar: Empirical Finance
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Content Structure

Qualification Goals

In this seminar, students learn to independently prepare, present and critically assess papers on current topics in the field of financial market research. The aim of the course is to impart skills in building and structuring information and to apply this knowledge to a specific issue. In addition, the module promotes students' presentation and discourse skills and prepares them for their final thesis.

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst	X	X	X
Sozial	X		

Content

The seminar "Empirical Financial" deals with selected empirical questions from the areas of Corporate Finance and Capital Markets, which are oriented to current publications and working papers in the respective field. The objective of the seminar is to familiarize students with empirical research in the field of finance and to prepare them for the requirements of a master thesis.

1. Empirical Asset Pricing
2. Econometrics of Market Microstructure
3. Event Studies
4. Volatility models
5. Time Series Models in Financial Econometrics

Teaching Forms

Teaching Methods

Interactive seminar, group work, peer teaching, presentation

Literature/Learning Materials

The students primarily research relevant literature.

Campbell J., Lo A. und MacKinlay A.C. (1997): The Econometrics of Financial Markets, Princeton University Press

Cochrane J. (2001): Asset Pricing, Princeton University Press, 2001

Hamilton, J: Time Series Analysis, Princeton University Press, 1994

Specifics

Different parallel seminar groups with different specialisations, small seminar groups with limited participants (max. 4 persons), registration and allocation to seminar groups at the end of the previous semester, independent preparation of term papers, developing and holding your own specialist lecture, ongoing consultation and advice during the processing phase, attendance obligation at all seminar session.

Organization of Course

Weekly Attendance 2,00	Division into Groups ja	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-008	Title of Module Derivatives & Financial Engineering
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • State the key principles of financial theory, essential mathematical methods, and the concept of risk-neutral pricing. • Analyze and structure derivatives • Implement advanced mathematical methods and computer technology to create innovative solutions for pricing, hedging and trading of financial derivatives
<p>Content</p> <p>Derivatives & Financial Engineering.</p> <ul style="list-style-type: none"> • Derivatives • Financial Engineering • Tutorial: Derivatives & Financial Engineering
<p>Teaching Forms</p> <p>Lectures, Practicals, Lectures and Practicals</p>

Requirements for Participation

Knowledge, Skills, Competencies	<p>Knowledge, comprehension, skills and competences from following course units:</p> <ul style="list-style-type: none"> • Quantitative Research
Preparation for the Module	Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>Derivatives are instruments used to hedge risks of volatile currencies, interest rates or commodities. Financial engineering is the technique used to create custom-made financial solutions. Hedging instruments always need a counterpart, and this comes in the form of a</p>

speculator. This means that hedging has two sides of a coin, which are risk reduction and speculation. Sustainable development in financial industries requires in-depth knowledge about how derivatives are engineered and how they can be used for companies' purposes. The module contains a critical review of derivatives in the context of an abusive use of speculation.

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (120 Minuten)	100 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module Dr. Sörensen, Mr Bloss		
Type of Module Pflicht: 2. Semester	Recurrence jedes Sommersemester	Duration 1 Semester
Admission Criteria none	ECTS Points 8,00	Weekly Attendance 6,00
Workload 8,00 x 25 Stunden = 200,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 67,5 Std. / 33,8 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-008-01	Financial Engineering
103-008-02	Derivatives in Financial Engineering
103-008-03	Tutorial: Derivatives in Financial Engineering

Description of the Module Element

Code	Title of the Module Element
103-008-01	Financial Engineering

Content Structure

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- State the key principles in financial theory, essential mathematical methods, and the concept of risk-neutral pricing
- Frame and describe in detail the valuations for forwards, swaps and options
- Explain the theoretical basis for the risk-neutral pricing approach including the underlying assumptions

With respect to acquired skills, students shall be able to do the following:

- Analyze and structure derivatives
- Identify and set up various trading and hedging strategies depending on given underlying risks and/or market expectations

With respect to acquired competencies, students shall be able to do the following:

- Understand the proper utilization of derivatives in practice
- Implement advanced mathematical methods and computer technology to create innovative solutions for pricing, hedging and trading of financial derivatives
- Apply both discrete and continuous time models in order to provide insights into the concept of risk-neutral pricing, which has significant ramifications both in theory and practice

Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			
Sozial			

Content

1. Valuation and analysis of forwards and futures
2. Valuation and analysis of swaps
3. Stochastic processes in discrete and continuous time
4. Determination of option prices in discrete time
5. Determination of option prices in continuous time
6. Greeks
7. Hedging Strategies

Teaching Forms

Lectures, Practicals, Lectures and Practicals
Teaching Methods Lectures, Discussions, Exercises
Literature/Learning Materials <ul style="list-style-type: none"> • Hull, J. (2008) Options, Futures, and Other Derivatives • Watsham, T. & Parramore, K. (1996) Quantitative Methods for Finance, optional • Tuckman, B. (2002) Fixed Income Securities, optional • Brealey, R., Myers, S. & Allen, F. (2010) Principles of Corporate Finance, optional
Specifics Flipchart, Metaplan board, PowerPoint-presentations, Excel sheets for downloading

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-008-02	Title of the Module Element Derivatives in Financial Engineering
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Content Structure

Qualification Goals

Qualification Goals

With respect to acquired knowledge, students shall be able to do the following:

- Summarize the theoretical toolbox of derivatives and a multitude of smaller exercises/case studies.
- Understand the derivative instruments in interest rates, credit and equities
- Explain the risk/return profile of structured products
- Describe in their own words the most important financial instruments in Financial Engineering.
- Derive main ideas of derivative transactions.

With respect to acquired skills, students shall be able to do the following:

- apply this theoretical framework in business practice
- apply knowledge in the structuring process of tailor made financial solutions
- Have the ability to plan and carry out suitable experiments and to evaluate and interpret the resulting data to arrive at conclusions

With respect to acquired competencies, students shall be able to do the following:

- fill a position in a trading and sales unit of an international bank
- design simple financial engineering solutions independently
- combine interdisciplinary knowledge in order to solve (new) problems

Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst		X	X
Sozial		X	X

Content

1. Derivatives Exchanges

- Electronic trading vs. open outcry
- Eurex, CBOE, CME, LIFFE (Clearing and Margining)

2.1 RBM (Risk based margining) vs. SPAN (Standard Portfolio Analysis of Risk) and TIMS (Theoretical Intermarket Margin System); Eurex Clearing Prisma

- Margining of Options; Margining of Futures

2.2 The Margincall: (Risk controlling and risk management)

3. Risk Controlling Options and Futures Acc. and Traders; Risk Controlling of A1; Risk Controlling of M1 (Derivatives Instruments and Valuation)
4. Options; Futures; Options on Futures; Combinations; Exotic Options (Interest Rate Derivatives of Fixed Income Solutions); Plain vanilla derivatives, OTC and exotic derivatives.
5. OTC Derivatives; Listed Options and Futures (Instruments, valuation, risk controlling).
6. Definition; Instruments used in Portfolio Management; Hedge funds management; Instruments used in Fond Management; Financial Engineering with Derivatives; Motives for equity & fixed income derivatives and financial engineering (credit derivatives and related instruments)
7. Definition; Instruments; Valuing of credit derivatives (pricing of derivatives)
8. Quantitative methods in Financial Engineering; Pricing models: Black Scholes Model; Binomial Methods (Cox, Ross, Rubinstein); Garman-Kohlhagen; Monte Carlo Methods, Sparse Grid Method; Valuing of listed and non-listed derivatives;
9. Greeks first order: Delta; Gamma; Theta; Rho; Vega; Greeks used in hedging transactions; Greeks used in special market situations; Greeks second order incl. Vanna-Volga pricing; Delta and gamma neutral hedging transactions.
10. Strategies with Options and Futures
 - Speculation; Hedging; Spread Trading; Combinations
11. FX Derivatives: Pricing of FX Derivatives; Strategies, Valuing
12. Commodity Derivatives: Pricing of commodity Derivatives; Strategies for hedging, speculation and spread trading
13. Swap and Swaptions: Instruments; Valuing; Strategies
14. Exotic Options
 - Instruments; Pricing and valuing of exotic options; Strategies with exotic options; Exotic options in financial engineering products; Risk management of exotic options.
15. Derivatives Used in Financial Engineering and in Risk Management
Financial Engineering Process; Instruments and strategies used in the financial engineering process; Valuing of a financial engineering product; Desks of a financial engineering department; Issuers and products; Offering (Public Offering; Private Placement); Derivatives in Risk management.

Teaching Forms

Teaching Methods

Lectures, Discussions, Exercises, Group work, presentation.

Literature/Learning Materials

Lecturers own script

Michael Bloss, Dietmar Ernst, Joachim Häcker, Daniel Sörensen: Financial Engineering

Specifics

Flipchart, Metaplan board, PowerPoint-presentations, Excel sheets for downloading, Live-simulations, Bloomberg, Matlab®, etc.

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of the Module Element

Code 103-008-03	Title of the Module Element Tutorial: Derivatives in Financial Engineering
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Content Structure

<p>Qualification Goals</p> <p>Active and independent insertion of derivatives and trading solutions</p> <ul style="list-style-type: none"> • Constructing financial engineering products • Review and explanation of existing product • Analyse and structure derivatives • Valuation and modelling <p>With respect to acquired competencies, students shall be able to do the following:</p> <ul style="list-style-type: none"> • Understand the proper utilization of derivatives in practice • Implement trading strategies in terms of exchange-traded derivatives. • Inserting and evaluating OTC derivatives • Use of financial engineering products 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst			
Sozial			
<p>Content</p> <ul style="list-style-type: none"> • Derivatives Trading Strategies • Eurex Trading • Applied Trading OTC derivatives market • Create Financial Engineering Products • Financial Engineering Process • Construct and evaluation of Financial Engineering Products • Applied: Physics in Finance; Econophysics and Quantitative Models in Financial Engineering • Practical use of Derivatives in Financial Engineering 			
<p>Teaching Forms</p> <p>Lectures, Practicals, Lectures and Practicals</p>			
<p>Teaching Methods</p> <p>Lectures, Discussions, Exercises</p>			
<p>Literature/Learning Materials</p> <p>Bloss, Ernst, Häcker, Sörensen (2012) Financial Engineering</p> <p>Hull, J. (2016): Options, Futures, and Other Derivatives</p>			

optional: Lecturers own script

Specifics

Flipchart, Metaplan board, PowerPoint-presentations, Excel sheets for downloading; Bloomberg, Matlab®

Organization of Course

Weekly Attendance 2,00	Division into Groups ja	Recommended Semester 2 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study 0,0 Std.		Time for Exercises/ Group Work 0,0 Std.

Description of Module

Code 103-013	Title of Module Elective: Innovation in the Financial Industry (HfWU)
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Students shall be able to do the following:</p> <ul style="list-style-type: none"> • Summarize and interpret concepts of innovations in the financial industry. • Interpret and apply different concepts and technologies in the modern financial industry. • Recognize problems, challenges and concepts in the financial industry, compare various methods and implement them in a suitable and effective way.
<p>Content</p> <ul style="list-style-type: none"> • Starts-ups, Data Science and Machine Learning in the Financial Industry • Managing innovations • Digital Finance/Fin Tec
<p>Teaching Forms</p>

Requirements for Participation

Knowledge, Skills, Competencies	Knowledge, comprehension, skills and competences from the first two semesters. Willingness and curiosity to ask questions and to discuss topics with general arguments as well as with personal opinions and experience.
Preparation for the Module	Pre-reading of the recommended literature.

Practicability of Module

Relationship to other Modules within this Study Course	Students can apply acquired knowledge, skills and competencies within the International Finance programme as well as other Finance and Business Administration modules.
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>The currently observable transformation in the financial industry demand careful and sophisticated analysis of innovations. They require in-depth knowledge of technological innovations and their impact on existing business areas in the financial industry. Furthermore, it is necessary to actively manage the transformation process in order to ensure the long-term success of the company.</p>
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Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Klausur (120 Minuten)	25 %
Referat/Präsentation (keine Einheit gewählt)	45 %
Schriftliche Arbeit (keine Einheit gewählt)	30 %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module		
Type of Module Wahlpflicht: 3. Semester	Recurrence jedes Wintersemester	Duration Semester
Admission Criteria none	ECTS Points 15,00	Weekly Attendance
Workload 15,00 x 25 Stunden = 375,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours 90,0 Std. / 24,0 %	Preparation/Homework/Self-Study 0,0 Std. / 0,0 %	Time for Exercises/Group Work 0,0 Std. / 0,0 %

Content Structure

Code	Title of the Module Element
103-013-002	Entrepreneurship and Innovation Management
103-013-003	Starts-ups, Data Science and Machine Learning in the Financial Industry
103-013-001	Digital Finance/Fin Tec

Description of the Module Element

Code 103-013-002	Title of the Module Element Entrepreneurship and Innovation Management
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Content Structure

Qualification Goals			
Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			
Sozial			
Content			
The course "Entrepreneurship and Innovation Management" is provided by the BSc study programme "International Financial Management". Please check their prospective module handbook for a detailed description.			
Teaching Forms			
Teaching Methods			
Literature/Learning Materials			
Specifics			

Organization of Course

Weekly Attendance 4,00	Division into Groups nein	Recommended Semester 3 Semester	Language Englisch
Attendance / Contact Hours 45,0 Std.	Preparation/Homework/Self-Study		Time for Exercises/ Group Work

Description of the Module Element

Code 103-013-003	Title of the Module Element Starts-ups, Data Science and Machine Learning in the Financial Industry
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Content Structure

Qualification Goals 1. An understanding of the startup ecosystem. 2. Knowledge of how venture capital assists in scaling startup growth 3. Understanding of how technologies are used to disrupt industries			
Wissen	Knowledge	Skills	Competencies
Fach			
System			
Selbst			
Sozial			
Content 1. Startup Ecosystem and Lifecycle 2. AI in Startups: A look across industry verticals (Finance, Pharma, Retail, Logistics, Auto, Govt/NGO) 3. Entrepreneurial Finance: Venture financing lifecycle; Seed, Angel, Venture finance.			
Teaching Forms			
Teaching Methods			
Literature/Learning Materials To be provided in syllabus in first class.			
Specifics			

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 3 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study		Time for Exercises/ Group Work

Description of the Module Element

Code 103-013-001	Title of the Module Element Digital Finance/Fin Tec
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Content Structure

Qualification Goals			
<ol style="list-style-type: none"> 1. Learn how to run own research in your field of studies 2. Gain knowledge on digitalisation in the Finance area/ on Fintech 3. Strengthen your skills in presenting topics adequately 			
Wissen	Knowledge	Skills	Competencies
Fach	X	X	X
System	X	X	X
Selbst	X	X	X
Sozial	X	X	
Content			
<ul style="list-style-type: none"> • Disruption of Finance Industry's business models and value generation • Emergence of FinTech business models and new investment categories (Cryptocurrencies/ ICOs, Crowd Funding, P2P, Robo Advisors) • Digitalization of major value generation steps (AI, Chatbots, RPA, Payment Automation) 			
Teaching Forms			
Teaching Methods			
Interacitive seminar with intro session, interim presentation & feedback session plus final seminar paper submission & presentation.			
Literature/Learning Materials			
Theo Lynn/ John G. Mooney/ Pierangelo Rosati/ Mark Cummins (2019): Disrupting Finance - FinTech and Strategy in the 21st Century, Cham.			
Specifics			

Organization of Course

Weekly Attendance 2,00	Division into Groups nein	Recommended Semester 3 Semester	Language Englisch
Attendance / Contact Hours 22,5 Std.	Preparation/Homework/Self-Study		Time for Exercises/ Group Work

Description of Module

Code 103-009	Title of Module Elective: Accounting
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Significance of Module for the Goals of the Study Course

Qualification Goals
Content Please refer to the module descriptions of the respective university abroad.
Teaching Forms

Requirements for Participation

Knowledge, Skills, Competencies	
Preparation for the Module	

Practicability of Module

Relationship to other Modules within this Study Course	
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module		
Type of Module Wahlpflicht: 3. Semester	Recurrence keine Angabe	Duration 1 Semester
Admission Criteria	ECTS Points 15,00	Weekly Attendance

Workload 15,00 x 25 Stunden = 375,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours	Preparation/Homework/Self-Study	Time for Exercises/Group Work

Content Structure

Code	Title of the Module Element
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Description of Module

Code 103-010	Title of Module Elective: Banking
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Significance of Module for the Goals of the Study Course

Qualification Goals
Content Please refer to the module descriptions of the respective university abroad.
Teaching Forms

Requirements for Participation

Knowledge, Skills, Competencies	
Preparation for the Module	

Practicability of Module

Relationship to other Modules within this Study Course	
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module		
Type of Module Wahlpflicht: 3. Semester	Recurrence keine Angabe	Duration 1 Semester
Admission Criteria	ECTS Points 15,00	Weekly Attendance

Workload 15,00 x 25 Stunden = 375,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours	Preparation/Homework/Self-Study	Time for Exercises/Group Work

Content Structure

Code	Title of the Module Element
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Description of Module

Code 103-011	Title of Module Elective: Business Administration
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Significance of Module for the Goals of the Study Course

Qualification Goals
Content Please refer to the module descriptions of the respective university abroad.
Teaching Forms

Requirements for Participation

Knowledge, Skills, Competencies	
Preparation for the Module	

Practicability of Module

Relationship to other Modules within this Study Course	
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

Content

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module		
Type of Module Wahlpflicht: 3. Semester	Recurrence keine Angabe	Duration 1 Semester
Admission Criteria	ECTS Points 15,00	Weekly Attendance

Workload 15,00 x 25 Stunden = 375,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours	Preparation/Homework/Self-Study	Time for Exercises/Group Work

Content Structure

Code	Title of the Module Element
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Description of Module

Code 103-012	Title of Module Master Thesis
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Significance of Module for the Goals of the Study Course

<p>Qualification Goals</p> <p>Qualified research and evaluation of scientific literature. For this they use articles from international journals as well as practical information from companies. Research questions, hypotheses and research design can be convincingly developed. The work is well structured and convincingly presented in written form. Systemic knowledge, skills and competences: Students are able to independently produce a demanding scientific paper. Knowledge, skills and competence related to self-organization: Students are responsible for the project of writing their master's thesis. Knowledge, skills and competences related to social competence: Students can convincingly present their approach and work results in the colloquium with the professor.</p>
<p>Content</p> <p>The contents of the Master's thesis are coordinated with the first supervisor.</p>
<p>Teaching Forms</p>

Requirements for Participation

Knowledge, Skills, Competencies	Excellent knowledge of scientific work is required from the seminar "Designing and publishing empirical research" of the first semester.
Preparation for the Module	This takes place through the seminars in the first two semesters, especially through the seminar "Designing and publishing empirical research"..

Practicability of Module

Relationship to other Modules within this Study Course	The master thesis is based on all previous modules, especially on the seminar "Designing and publishing empirical research".
Relevance to other Study Courses	

Contribution of the Module to Sustainable Development

<p>Content</p> <p>The relation to sustainable development depends on the chosen topics. Students are encouraged to deal intensively with topics of sustainable development or to critically discuss the topic of their thesis against the background of sustainable development.</p>

Exam Requirements (necessary for the awarding of points)

Type and Duration (min.)	Weighting %
Masterarbeit (4 Monate)	NaN %

Organization of Course

Responsible for Module Prof. Dr. Dr. Dietmar Ernst		
Further Persons Responsible for Module all first supervisors		
Type of Module Pflicht: Masterarbeit	Recurrence keine Angabe	Duration 1 Semester
Admission Criteria	ECTS Points 15,00	Weekly Attendance
Workload 15,00 x 25 Stunden = 375,0 Stunden, mit der folgenden Aufteilung		
Attendance / Contact Hours	Preparation/Homework/Self-Study	Time for Exercises/Group Work

Content Structure

Code	Title of the Module Element
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