Module Name: Market and Environment of Financial Institutions

Module Code	w.MA.XX.MUF-M1-PiE.16HS
Module Description	Actors involved in financial markets move in an environment characterized by momentum and complexity. Those in charge need to be able to recognize early any changes in the economic, legal, social, and political environment. They also need to be able to evaluate and redefine their strategies. Besides other trends and developments, specifically questions of competitiveness, resilience, and the regulation of financial systems and financial centers are gaining in importance. At the same time, conflicts of interest in the context of domestic and international taxation are on the increase.The module 'Market and Environment of Financial Institutions' develops students' basic knowledge of the macro-economic significance of financial markets and the tax-related and regulatory environment of the financial sector. The focus of this module is on economic analysis of the relationships between financial system and real economy, in particular the causes and effects of economic and financial crises, the determinants of financial market regulation / stability, and the position of Switzerland in the international competition of financial centers.
Program and Specialization	Banking and Finance (PiE)
Legal Framework	Academic Regulations MSc in Banking and Finance dated 29.09.2011, Appendix to the Academic Regulations for the degree program in Banking and Finance, first adopted on 28.08.2012
Module Category	**Module Type:** Compulsory
ECTS	6
Organizational Unit	W Abt. Banking, Finance, Insurance Ltg.
Module Coordinator	Ziegler Suzanne (zisu)
Deputy Module Coordinator	Kessler Esther (kesl)
Prerequisite Knowledge	The module builds on the foundations of a Bachelor's degree program in Business Administration with a Specialization in Banking and Finance.
Contribution to Program Learning Goals (Affected by Module)	§ Subject Competence § Methodology Competence § Social Competence § Self Competence
Contribution to Program Learning Objectives	Subject Competence § Knowing and Understanding Content of Theoretical and Practical Relevance § Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance § Evaluate Content of Theoretical and Practical Relevance Methodology Competence § Problem-Solving & Critical Thinking § Scientific Methodology § Work Methods, Techniques, and Procedures § Information Literacy § Creativity & Innovation Social Competence § Written Communication § Oral Communication § Teamwork & Conflict Management § Intercultural Insight & Ability to Change Perspective Self Competence § Self-Management & Self-Reflection § Ethical & Social Responsibility § Learning & Change

Module Learning Objectives	Students... § have fundamental knowledge of the theoretical explanatory sentences about the existence of financial intermediaries, in particular banks, and their economic significance and mandate. § know the interdependencies of the financial system and real economic sector of an economy and know how macro-economic models are used to analyze it. § understand how goods and financial markets operate in the context of fixed and flexible exchange rate regimes. § know the causes, development, and economic effects of banking, financial, and currency crises as well as their model-theoretical analysis. § know the key economic determinants of state regulatory measures for financial markets and financial intermediaries. § know the basic characteristics of Switzerland as a financial center and its significance for the Swiss economy. § are able to analyze and evaluate changes in the environment of a financial system and the financial markets using macro-economic models and recognize the relevant consequences for the financial markets. § are able to assess current developments and future effects of the increasing international linkage and interdependence of financial markets. § are able to list the causes and indicators of banking and financial crises as well as the economic and political measures employed to counteract them. § are able to explain the reasons for the regulation of financial markets and financial intermediaries and the significance of financial market stability in a national and international context. § are able to evaluate the essential success factors of financial centers competing internationally. § are able to discuss current issues of Swiss financial market policy and explain interrelationships. § are able to describe the subject, aims, and methods of financial market regulation. § are able to explain the basic principles of current and planned future supervision of financial service providers in Switzerland and the rules of behavior and regulations to combat abuse resulting from them. § are able to analyze and solve financial-market cases and issues and reflect on them from the point of view of their effects on society. § are able to evaluate the legal challenges of providing cross-border financial services and explain the legal problems of the international exchange of information. § are able to categorize the measures banks need to take in times of crisis from an economic and a legal perspective. § are able to describe the fundamental principles of national and international tax law in Switzerland and aspects of taxation that are relevant for Switzerland as a financial center.
Links to other modules	-

Methods of Instruction		Social Settings Used:
	§ Lecture § Interactive Instruction § Application Tasks § Case Studies § Exercises § Problem-Oriented Teaching § Explorative Learning § Literature Review	§ Individual Work § Group Work

Digital Resources	§ Practice and Application Exercises (with Key) § Case Studies (with Key)

Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Lecture	72 h	42 h	
Excercise	-	-	
Project Work	-	-	
Seminar	-	-	
Total	**72 h**	**42 h**	**66 h**

Performance Assessment			
End-of-module exam	**Form**	**Length (min.)**	**Weighting**
Written exam	Specified documentation	90	100,00%
Permitted Resources*	Formulary	§ Non-programmable calculator § With dictionary	
*Acc. to the Guidelines on the Use of Examination Aids/Resources ("Merkblatt Hilfsmittel SML Intranet Prüfungen/Zeugnisse")			
Others	**Assessment**	**Length (min.)**	**Weighting**
-	-	-	-

Classroom Attendance Requirement	-

Language of Instruction/Examination	English
Compulsory Reading	§ Blanchard, O., Amighini, A. & Giavazzi, F. (2013). Macroeconomics: A European Perspective. 2nd edition. Harlow: Pearson (Chapter 3 - 8, 12, 20 - 21: Copies will be distributed in class). § Mishkin, F. (2015). The Economics of Money, Banking, and Financial Markets. 11th edition. Harlow: Pearson (Chapters 2, 8, 11, Copies will be distributed in class). § Freixas, X. & Rochet, J. (2008). Microeconomics of Banking. 2nd edition. Cambridge, MA: MIT Press (Chapters 1, 2, 9, Copies will be distributed in class). § Eidgenössisches Finanzdepartement EFD (2016). Bericht über internationale Finanz- und Steuerfragen 2016. Bern. § Eidgenössisches Finanzdepartment EFD (2016). Die Steuern von Bund, Kantonen und Gemeinden, Ein Kurzabriss über das schweizerische Steuersystem. Bern.
Recommended Reading	§ Freixas, X., Laeven, L. & Peydró, J. (2015). Systemic Risk, Crises, and Macroprudential Regulation. 1st edition. Cambridge, MA: MIT Press. § Blanchard, O., Dell'Ariccia, A. & Mauro, P. Rethinking Macroeconomic Policy. IMF Staff Position Note 2010. Washington, D.C.: IMF 2010. § Blanchard, O., Dell'Ariccia, G. & Mauro, P. Rethinking Macro Policy II – Getting Granular. IMF Staff Discussion Note. Washington, D.C.: IMF 2013. § Weitere Literaturhinweise werden in den einzelnen Blöcken gegeben.
Comments	Competencies required for admission (if necessary, these need to be brushed up or acquired by means of prior self-study): foundations of macro-economics (Mankiw/Taylor: Economics, 2nd edition, Cengage Learning 2011, Chapters 23-35), in particular balance of payments, exchange rates, and the AS-AD model.

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Module Name: Management of Financial Institutions	
Module Code	w.MA.XX.MVF-M2-PiE.16HS
Module Description	After completing the MSc program in Banking and Finance, graduates will be able to manage a company in the financial services industry strategically. Module 2 covers the following general topics: strategy identification processes, strategic positioning, value-added management, change management. Marketing for banks and financial service providers will be studied in greater detail.
Program and Specialization	Banking and Finance
Legal Framework	Academic Regulations MSc in Banking and Finance dated 29.09.2011, Appendix to the Academic Regulations for the degree program in Banking and Finance, first adopted on 28.08.2012
Module Category	**Module Type:** Compulsory
ECTS	6
Organizational Unit	W Abt. Banking, Finance, Insurance Ltg.
Module Coordinator	Brunner Hans (brnh)
Deputy Module Coordinator	Hohgardt Holger (hohg)
Prerequisite Knowledge	Students have a Bachelor's degree in Business Administration with a specialization in Banking and Finance. Prior to starting this module, they have the following knowledge and competencies: • Elements and flow of an ideal-typical leadership process • Understanding the basic principles underlying the relationships between an enterprise, its environment, and the market • The concepts of the St. Gallen management model • Basic knowledge of business models • Fundamental principles of marketing and the 4Ps principle • Characteristics of business models in retail banking, private banking, and investment banking
Contribution to Program Learning Goals (Affected by Module)	§ Subject Competence § Methodology Competence § Social Competence § Self Competence
Contribution to Program Learning Objectives	Subject Competence § Knowing and Understanding Content of Theoretical and Practical Relevance § Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance § Evaluate Content of Theoretical and Practical Relevance Methodology Competence § Problem-Solving & Critical Thinking § Scientific Methodology § Work Methods, Techniques, and Procedures § Information Literacy § Creativity & Innovation Social Competence § Written Communication § Oral Communication § Teamwork & Conflict Management § Intercultural Insight & Ability to Change Perspective Self Competence § Self-Management & Self-Reflection § Ethical & Social Responsibility § Learning & Change

Module Learning Objectives	Students... § know the concept of the General Management Navigator § know typical business areas and business models of banks § know nature and critical success factors of the strategy phases "initiation" and "positioning" § know the design criteria of the value-added chain § are able to harmonize strategic business fields and strategic business units § know the meaning of the key trends "digitization" and "industrialization" and their impact on the business models of banks § are able to develop strategies for banks and plan their implementation § are able to apply, explain, evaluate, and implement the essential methods banks use in strategy development and implementation § are able to define the relevant environment of a bank and carry out a valid, systematic situational analysis § are able to develop practical strategic concepts for financial services and prepare decisions § are able to analyze the competitive environment of the financial sector and in individual markets § are able to describe the difference between marketing and service marketing § know the main features of service-dominant logic § know the basics of pricing in banking § know the international aspects of financial services marketing § know the basics of service design § know the influence of digitization on financial services marketing § know the importance of employees in marketing for financial services companies
Links to other modules	The content of this module is linked to the following modules: w.MA.XX.BCGP-M4-PiE.16HS w.MA.XX.RM-M3-PiE.16HS
Methods of Instruction	§ Lecture § Application Tasks § Case Studies § Project Work § Literature Review **Social Settings Used:** § Individual Work § Group Work
Digital Resources	Reader

Type of Instruction	Classroom Instruction	Guided Self-Study	Autonomous Self-Study
Lecture	48 h	-	
Excercise	-	32 h	
Project Work	-	72 h	
Seminar	-	16 h	
Total	**48 h**	**120 h**	**12 h**

Performance Assessment

End-of-module exam	Form	Length (min.)	Weighting
Written exam	Closed book	90	66,70%
Permitted Resources*	Non-programmable calculator		

*Acc. to the Guidelines on the Use of Examination Aids/Resources ("Merkblatt Hilfsmittel SML Intranet Prüfungen/Zeugnisse")

Others	Assessment	Length (min.)	Weighting
Written Assignment	Grade	-	33,30%

Classroom Attendance Requirement	- Seminar week
Language of Instruction/Examination	English
Compulsory Reading	-
Recommended Reading	Lovelock, C. (2011). Services Marketing. 7th edition. Pearson.
Comments	-

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Module 3   **Risk Management**

Module Topic / Aims	The financial market crisis of 2009 has shown that the banking industry was badly prepared for the crisis and that a functioning risk management is of utmost importance for financial institutions. The strategic importance of risk management will remain important and might create comparative advantages for banks in the global markets. The module introduces students to the intricate topics of risk management, its basic organizational setups, models, and management techniques. Students will get a comprehensive overview of the management of operational risk and the regulatory developments and capital requirements (Basel I, II, III) (Course 3.1). Course 3.2 discusses the models and management techniques used in credit risk management. Market risk management (Course 3.3) covers important methods for measuring and managing market risks. After successfully completing all three courses of the module, students will have a solid basis in risk management. As a result, positions in well-run risk management units of banks should lie within their reach.

Module Code	
Degree Program	Master of Science in Banking and Finance
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Other

Module Type	Degree Program	C (Core Module)	R (Extension)	M (Elective)
	Master in Banking and Finance	C		

Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization
ECTS Credits	6

Courses	Code	Course Title		ECTS Credits
	3.1	Risk Management in Banking		2
	3.2	Credit Risk Management		2
	3.3	Market Risk Management		2

Module Owner	Last Name, First Name	E-Mail/Phone
	Peter Manz, PhD	mape@zhaw.ch

Prerequisite Competencies	Students have a Bachelor's degree in Business Administration with a specialization in Banking and Finance. They have some basic knowledge of bank risk management. In particular, students: - Are able to classify and describe bank risk - Know the typical steps followed in a risk management process (identification, measurement, aggregation, management and control, reporting, and monitoring) - Know the basics of risk measurement, such as value at risk and scenario analysis - Know the main features and the structure of regulatory requirements for the risk and capital management of banks (Basel II, Basel III), - Have a basic knowledge of the regulatory standard approaches for assessing the capital requirements that cover banking risks. Basic literature: Michel Crouhy, Dan Galai, Robert Mark; (2006). The Essentials of Risk Management; McGraw-Hill; New York

Prerequisite Modules	9
Follow-Up Modules	4, 11, 12
Comments	

Course 3.1   **Risk Management in Banking**

Course Topic / Description	This course covers general and bank-wide aspects of risk management, capital requirements as a consequence of risk positions, as well as a thorough discussion of the fairly new risk category of operational risk and its integration into methods of bank risk management: Enterprise Risk Management (ERM). It provides an introduction to the topics and examines why risk management makes economic sense. It also discusses operational risk, covering issues such as identification, measurement, modelling and, finally, management. Capital requirements for bank risks in general are discussed in the context of important qualitative requirements. Finally, students also study aggregation of the diverse risks to total risk and bank-wide, integrated risk management (IRM), as well as topics such as capital allocation and return on capital (RAROC).
Course Code	3.1

Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Peter Manz, PhD	peter.manz@zhaw.ch

Prerequisite Courses	none
Follow-On Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies
Students have the following knowledge (at Bachelor's level) and know how to apply it: - Main objectives and organizational features of risk management (Chapter 1, 2, 4, 5) - Value at risk and stress test (Chapter 7) - Operational risk and model risk (Chapter 13, 14) - Economic capital and risk-adjusted performance (Chapter 15) - Features of regulatory requirements covering banking risks (Basel II)   Basic literature: Michel Crouhy, Dan Galai, Robert Mark; (2006). The Essentials of Risk Management; McGraw-Hill; New York

Competencies to Be Developed / Main Goals (approx. 2 to 3)
Students are able to do the following: 1.   Contribute to the operational risk management of a bank 2.   Understand and contribute to the reporting of risks and of capital requirements to regulators 3.   Contribute to the controlling of bank risk

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know/understand: - OpR and capital requirements (Basel II, III) - the potential benefits as well as the limits of ERM	**Professional Competence :** Students are able to: - identify and classify OpR - solve basic OpR problem settings
Methodological Knowledge: Students know: - the modelling of OpR - the methods for the measurement of capital requirements for all risk classes	**Methodological Competence:** - apply the methods they have learned in simple cases; they are qualified to collaborate in bank teams that have to handle risks and issues covered in the course

Course Content	
Block 3.1.1 Peter Manz	**General Aspects of Risk Management** ▪ Introduction to risk management ▪ Risk identification and measurement ▪ Risk management activity ▪ Discussion of the LTCM story
Block 3.1.2 Peter Manz	**Capital Requirements to Cover Bank Risks** ▪ Three-pillar approach of Basel II ▪ Capital requirement for credit risk ▪ Capital requirement for market risk ▪ Capital requirement for operational risk ▪ Discussion of "too big to fail" (TBTF)
Block 3.1.3 Peter Manz	**Operational Risk I** ▪ Identification and measurement of OpR exposures ▪ Modelling of frequency and severity of individual losses ▪ Case study and discussion: UBS in the subprime crisis
Block 3.1.4 Peter Manz	**Operational Risk II** ▪ Derivation of loss distribution ▪ Aspects of OpR optimization ▪ Optimization Exercise
Block 3.1.5 Peter Manz	**Operational Risk III** ▪ Extreme value theory (EVT) ▪ OpR in the banking industry ▪ Discussion of OpR modelling in real banks
Block 3.1.6 Peter Manz	**Enterprise Risk Management (ERM)** ▪ Integration of market; credit and operational risks ▪ Capital allocation and performance measurement ▪ Economic capital of big banks ▪ Wrap up

Mode of Instruction	
☒ Discipline-specific ☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional teaching approaches, such as lectures, discussion, exercises, and solving previous exam questions
Self-Study	Literature study, preparation and post-processing of lecture material and topics, and self-study assignments

Language of Instruction	☐ German ☒ English ☐ Other

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	- Written exam (60 minutes; closed book)

Literature	**Compulsory Reading** (to be made available electronically on Ilias):
	Aue, F and Kalkbrener, M; 2007; LDA at Work, Deutsche Bank, discussion paper Basel Committee on Banking Supervision; 2003, Sound practices for the management and supervision of operational risk; BIS, Basel Basel Committee on Banking Supervision; 2006, International convergence of capital measurement and capital standards, A revised framework, comprehensive version, BIS, Basel; (selected chapters) Moscadelli M.; 2004, The modelling of operational risk: experience with the analysis of the data collected by the Basel committee; Technical Report 517, Banca d'Italia; (selected chapters) Nocco, B.W.; Stulz, R.M.; 2006, Enterprise risk management: Theory and practice; J. of Applied Corporate Finance, Vol. 18, No. 4 Straumann, Tobias; 2010, The UBS Crisis in Historical Perspective; Expert Opinion prepared for delivery to UBS AG; Discussion Paper, University of Zurich Stulz, René M.; 2003, Risk Management and Derivatives; Thomson South-Western, Mason OH; Chapter 3 Press release; 2010, Commission of Experts submits package of measures to limit "too big to fail" risks; Federal Administration; Switzerland **Additional Reading** (to be made available electronically on Ilias): ERV: Überblick über die Eigenmittel- und Risikoverteilungsvorschriften in der Schweiz; PWC; 2007 (extracts) Jorion, P.; 2000, Risk Management Lessons from Long-Term Capital Management; European Financial Management 6 (Sept) McNeil, A.; 1999, Extreme value theory for risk managers, ETHZ, Zurich; Chapter 10 Oesterreichische Nationalbank; 2005, Management des operationellen Risikos, Leitfaden, Oesterreichische Nationalbank; Chapter 4 Smith, C.W,; Smithson, C.W.; Wilford, D.S.; 1990; Managing Financial Risk; The Institutional Investor Series in Finance, Harper & Row, Publishers, New York; Chapter 2 Stulz, René M.; 2003, Risk Management and Derivatives; Thomson South-Western, Mason OH; Chapter 2

Course 3.2   Credit Risk Management

Course Topic / Description	Students understand the main principles and the implementation of effective, integrated credit risk management.
Course Code	3.2
Course Coordinator	*Last Name, First Name*

	Last Name, First Name	*E-mail/Phone*
Course Coordinator	Werner Rosenberger, PhD	werner.rosenberger@hslu.ch

Prerequisite Courses	none
Follow-On Courses	

Type of Degree Program	☐ Bachelor's	☒ Master's	☐ MAS	☐ Other
ECTS Credits	☐ 0	☒ 2	☐ 4	☐ 9

Prerequisite Reading	

Prerequisite Competencies

Students have the following knowledge (at Bachelor's level) and know how to apply it:
- Main objectives and organizational features of risk managements (Chapters 1, 2, 4, and 5)
- Value at risk and stress test (Chapter 7)
- Regulatory requirements covering banking risk (Basel II, Basel III, based on papers of BCBS)
- Basic knowledge concerning methodological approaches of credit risk management (Rating, PD/LGD/EAD, portfolio level: expected and unexpected loss (Chapters 10 – 11)
- Basic knowledge concerning credit derivatives and structured debt products (Chapter 12)

Basic literature: Michel Crouhy, Dan Galai, Robert Mark; (2006). The Essentials of Risk Management; McGraw-Hill; New York

Competencies to Be Developed / Main Goals (approx. 2 to 3)

1. Students are capable of evaluating credit risk models and know how to use these.
2. Students are able to evaluate credit risk and set its pricing.
3. Students have mastered the analysis of and know to assess performance and risks of a credit portfolio.

Learning Goals

Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know/understand - The credit characteristics of a bank - Credit risk models for the analysis of creditors as well as credit portfolios - The interrelation of risk and value management	**Professional Competence :** Students know how to do the following: - Credit risk evaluation - Calculate the capital requirement for the credit business - Calculate risk-adjusted credit premium; they are able to assess the performance of credit portfolios
Methodological Knowledge: - Students understand the models used in credit risk management: rating, loss given default, exposure at default und credit portfolio models	**Methodological Competence:** - Students are able to specify and to make use of credit risk models

Course Content	
Block 3.2.1 Roger Rissi	**Basics** ▪ Introduction/basic terms/free cash flow ▪ Rating/pricing ▪ Major credit products
Block 3.2.2 Werner Rosenberger	**Organizational Requirements** ▪ Exercise ▪ Organization and processes
Block 3.2.3 Roger Rissi	**Statistical Rating Models / Expert Systems** ▪ Statistical rating models ▪ Derivation of implicit ratings ▪ Mini case study (bring along your laptop!)
Block 3.2.4 Werner Rosenberger	**Structural Rating Models** ▪ Exercises ▪ Black/Scholes/Merton approach; KMV approach ▪ Rosenberger model
Block 3.2.5 Roger Rissi	**Credit Portfolio Management** ▪ Credit portfolio models (Vasicek, CPV, Credit Risk+, CreditMetrics, etc.) ▪ Mini case study (bring your laptop along!)
Block 3.2.6 Roger Rissi	**Credit Derivatives / Credit Portfolio Management** ▪ CDS, TSR, EC & RAROC ▪ Mini case study (bring your laptop along!)

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional teaching methods such as lectures, conversation with lecturer, partner and group assignments, and discussion of exercises
Self-Study	Literature study, preparation and post-processing of lecture material and topics, self-study assignments, research assignments, and short presentations

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	- Written exam (60 minutes; closed book)

Literature	**Mandatory literature:** Will be distributed in class or will be made available on the Ilias platform

Course 3.3   Market Risk Management

Course Topic / Description	Students understand the principles and instruments of effective market risk and asset liability management. They are prepared to participate in the identification, measurement, assessment, and management of market risks.
Course Code	3.3
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Horst Bienert, PhD horst.bienert@zhaw.ch Martin Spillmann, PhD martin.spillmann@hslu.ch
Prerequisite Courses	none
Follow-On Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies
Students are expected to have previous applicable knowledge on the following topics: - Objectives and organization of risk management (CGM Chapters. 1, 2, 4, and 5) - Value at risk and stress tests (CGM Chapter 7, Hull Chapters 8, 17) - Economic capital and performance measurement (CGM Chapter 15, Hull Chapter 21) - Bank regulations (Basel II, Basel III, BIS papers) - Fundamentals of interest rate risk management and ALM (CGM Chapters 6, 8,) - Financial instruments including valuation (shares, bonds, options, and futures) Basic Literature: - (CGM) Michel Crouhy, Dan Galai, Robert Mark; (2006). The Essentials of Risk Management; McGraw-Hill; New York or   (Hull) Hull, John C. (2010): Risk Management and Financial Institutions. 2nd edition, Boston: Pearson. - (BKM) Zvi Bodie, Alex Kane, Alan J. Marcus (2010). Essentials of Investments; 8th edition; McGraw-Hill, New York

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Students are capable of evaluating financial instruments and their risk profiles. 2. They have the ability to approach risk measurement independently: They can explain, apply, and interpret the method, are aware of limitations, and factor them into their decision-making. 3. Students understand ALM models and can apply them to prepare decisions on rate risks as well as on funding- and liquidity risks.

Learning Goals	
Knowledge / Discipline(s)	***Complex Competencies*** ***or Sub-Competencies***
Specialist Knowledge: Students know/understand: - The risk characteristics of financial instruments - The value at risk and other concepts - The principles of ALM	**Professional Competence :** Students know how to do the following: - Disaggregate financial products to their core parts and analyze them systematically - Evaluate a trading book's financial products by means of risk figures - Determine ALM risks and subsequently hedge them
Methodological Knowledge: Students understand - The risk characteristics of financial products - VaR methodology - ALM methodology	**Methodological Competence:** Students are able to do the following: - Apply their knowledge on methods in practical cases - Collaborate in expert teams on above issue

Course Content	
Block 3.3.1	**From Risk Management to Risk Measurement** • Introduction • Standard architecture of market risk management • Approaches to VaR estimation (historical simulation, Monte Carlo, variance-covariance) • Introduction to exercise: approaches to estimating VaR
Block 3.3.2	**Asset Liability Management (1)** • Introduction, current challenges • Bank treasury functions • Market risks and funds transfer pricing (ftp) • Value vs. income effect • Trading book vs. bank book • Risk modelling of non-maturing accounts (introduction)
Block 3.3.3	**Asset-Liability Management (2)** • Treasury organization • Funds transfer pricing • Interest rate risk (case study)
Block 3.3.4	**Introduction to Risk Measurement** • Methods to calculate VaR • Reviewing VaR-calculations: back-testing and Validation • Characteristics of finance markets (time series) • Mapping of positions to risk factors
Block 3.3.5	**Value at Risk and managing market risks in the trading book** • Portfolio VaR/ drilldown and aggregation • VaR-critics and alternative risk measures • Scenario approach / stress testing
Block 3.3.6	**Risk Measurement, continued** • Structuring market risk management • In-depth issues • Discussion: Model dependency in market risk management

Mode of Instruction
☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Traditional teaching methods such as lectures, conversations, and group assignments
Self-Study	Literature research, pre-reading, discussions, and wrap-ups

Language of Instruction	☐ German	☒ English	☐ Other

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	20	15.0		40.0	5.0	**60**
Proportional			25.0%		66.7%	8.%	**100%**

Performance Assessments	- Written exam (60 minutes; closed book)

Literature	**Compulsory Reading:**
	Recommended book (compulsory excerpts on ILIAS):
	CA 1-4 Alexander, Carol (2008), Market Risk Analysis, Band 1-4, Hoboken : Wiley. (Extracts)
	Dowd Dowd, Kevin (2005): Measuring Market Risk, 2nd edition, Chichester : Wiley. (Extracts)
	Hull Hull, John C. (2009): Options, Futures, and Other Derivatives, Upper Saddle River: Pearson Prentice Hall. (Excerpts)
	Cont Cont, Rama (2001): Empirical Properties of Asset Returns: Stylized Facts and Statistical Issues. Quantitative Finance, Vol. 1, pp. 223-226.
	MX Mina, Jorge / Xiao, Jerry Yi (2001): Return to RiskMetrics : The Evolution of a Standard. New York : RiskMetrics.
	OeNB99 Oesterreichische Nationalbank (1999): Leitfadenreihe zum Marktrisiko, Band I: Allgemeines Marktrisiko bei Schuldtiteln, 2. Auflage, Wien. (www.oenb.at) (Auszüge)
	OeNB08 Oesterreichische Nationalbank / Finanzmarktaufsicht (2008): Leitfaden zum Management des Zinsrisikos im Bankbuch. Wien. (Auszüge)
	RM99 RiskMetrics (1999): Risk Management – A Practical Guide. New York : RiskMetrics
	Additional Reading:
	– Will be introduced in the lecture and made available on ILIAS

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MSc Banking and Finance

Module 4   **Controlling and Business Processes in Banking**

Module Topic / Aims	In Module 4 students consider the concepts underlying the question of which modifications are necessary at the business process level and in the areas of information gathering and support technology to improve the efficiency of a bank. Further, they deal with the details of performance management and the business and financial reporting of banks and financial services providers.			
Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Others			
Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		
Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization			
ECTS Credits	6			
Courses	*Code*	*Course Title*		*ECTS Credits*
	4.1	Business Processes and IT Architecture		2
	4.2	Performance Management		2
	4.3	Value Reporting		2
Module Owner	*Last Name, First Name*		*E-Mail/Phone*	
	Prof. Hans Brunner, PhD		hans.brunner@zhaw.ch	
Prerequisite Competencies	Students have a Bachelor's degree in Business Administration with a Specialization in Banking and Finance. They already have a solid foundation of the topic areas of the courses taught in this module.			

Prerequisite Modules	Module 2: Management of Financial Institutions Module 9: Scientific Research
Follow-Up Modules	None
Comments	The performance assessments to be completed for this module may not be repeated.

Course 4.1   Business Processes and IT Architecture

Course Topic / Description	Discussing the concepts underlying the question of which modifications are necessary at the business process level and in the areas of information gathering and support technology to improve the efficiency of a bank.
Course Code	4.1

Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Christoph Kley, PhD	christoph.kley@zhaw.ch

Prerequisite Courses	2.1 Strategic Bank Management
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies
1. Analyze the benefit potential of business process management between the conflicting priorities of customer benefit and efficiency and develop the best possible solutions
2. Become familiar with the core processes of banking and their intersections. Know the success factors of managing complexity.
3. Evaluate the information technology infrastructure with regard to the best possible support of the bank's processes and identify optimization options.

Competencies to Be Developed / Main Goals (approx. 2 to 3)

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The key KPIs in banking processes - The pareto rules for optimized processes in service centers - The need for IT support in banking - The key IT banking systems in Switzerland (Avaloq/Finnova)	**Professional Competence :** Students are able to do the following: - Make independent optimization proposals based on their KPI knowledge - Provide an overview of the basic processes of a bank
Methodological Knowledge: Students know the following: - The key ways to model processes - The basic IT architecture models - The service center concept	**Methodological Competence:** Students are able to do the following: - Apply the key ways to model processes - Evaluate processes for their applicability for an FDL enterprise - Effectively combine IT and business process architecture - Successfully implement service architecture and pareto-optimal processes in banking

Course Content	
Block 1 Ueli Schlatter	**The Business Process Model of a Bank**
Block 2 Jürg Rebsamen, PhD	**Sourcing, IT-strategies and IT-platforms of Swiss banks**

Block 3 Andreas Barratiero	**Process management of the SGKB**
Block 4 Andreas Barratiero	**Case: Reorganisation (relationship between processes, organizational structure and capacity management**
Block 5 Christoph Kley, PhD	**CreditSim Process- Simulation part 1**
Block 6 Jürg Rebsamen, PhD	**CreditSim Process- Simulation part 2**

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, and small research projects

Language of Instruction	☐ German	☒ English	☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	- Written exam (60 minutes, closed book)
	- Participation CreditSim (pass/fail)

Literature	**Mandatory Reading:**
	- Lecturers' slides
	- Bornhöft, F./Faulhaber, N. (2010): Lean Six Sigma erfolgreich implementieren, Frankfurt: Frankfurt School Verlag, 2nd Edition.

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Course 4.2   Performance Management

Course Topic / Description	Those involved in general bank management must immerse themselves in the issue of performance. This involves, on the one hand, the measuring of the bank's own performance and understanding the performance of customers, products, and organizational units (profit centers), on the other. Successful performance management must be able to act in line with the bank's long-term strategy and set and evaluate clear milestones. Multidimensional systems of key figures are needed to handle this task. In operations, the performance of customers and products must be examined in order to work out a suitable platform for decision-making. The course thus covers banking-specific strategic and operative planning and control, as well as general performance measuring of third-party organizations to be evaluated in the context of delivering banking services.
Course Code	4.2

Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Martin Lüthy, PhD	martin.luethy@zhaw.ch

Prerequisite Courses	None
Follow-Up Courses	4.3 Value Reporting
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	-

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
After completing this course, the students will be able to do the following: - Know the responsibilities and the role of bank controlling   - Explain the major concepts and methods of performance management in banks   - Identify and evaluate the major key performance indicators for banks   - Understand the basic methods of customer and product controlling   - List the benefits and drawbacks of the various approaches employed in planning and budgeting   - Evaluate the financial information of banks and evaluate them in terms of their validity

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - Responsibilities, role, and core processes of bank controlling - Concepts of bank controlling - Key performance indicators for banks - Foundations of operational accounting for banks - Planning and budgeting in banks	**Professional Competence :** Students are able to do the following: - Demonstrate a fundamental professional understanding of controlling - Prepare and evaluate the data used for decision-making - Know the interconnections of bank management and of internal and external reporting
Methodological Knowledge: Students know the following: - Methods of customer and product calculation - Design planning processes - How to produce financial analyses	**Methodological Competence:** Students are able to do the following: - Interlink considerations on strategic management with approaches of internal and external reporting - Acquire integrated and critical thinking - Transfer controlling models to actual banking-specific issues

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Course Content	
Block 1 Martin Lüthy, PhD	**Bank Controlling as a Management Tool** Bank Controlling and fact-based management Measuring profitability, growth and risk Value-driven bank management using key performance indicators Performance management based on corporate accounting
Block 2 Martin Lüthy, PhD	**Management of Loan and Deposit Business** Relevance and value drivers of the loan and deposit business Calculating interest margins by using the market interest rate method Credit risk costs
Block 3 Martin Lüthy, PhD	**Continuing Loan and Deposit Business** Liquidity costs Allocation of equity- and credit spread costs Internal income statements and the present value concept
Block 4 Martin Lüthy, PhD	**Performance Management of Securities and Exchange Transactions** Relevance and value drivers of securities and exchange transactions Managing volatility Analyzing Assets under Management and Net New Assets Pricing models as an instrument of bank controlling Internal income statements
Block 5 Martin Lüthy, PhD	**Cost Management** Cost drivers and cost structure Analyzing labor costs How to increase efficiency of banks Cost management through cost calculation
Block 6 Martin Lüthy, PhD	**Planning and Forecasting** Long term financial planning as part of the strategy process Resource allocation based on operational planning Forecasting as an instrument of bank controlling

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, discussion of tasks, case studies, etc.
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, preparation of short presentation, etc.

Language of Instruction	☐ German　　☒ English　　☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam, 60 min. (open book)

Literature	**Mandatory Reading:** – Nagel-Jungo, Gabriela (ed.): Financial Bank Management – Accounting, Controlling & Auditing für Banken, 1st edition, Zurich 2012. – Nagel-Jungo, Gabriela; Schreiner, Sandra (ed.): Finanzielle Führung bei Banken, 1st edition, Zurich 2013.

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	Additional Reading:
	– Henner Schierenbeck: Ertragsorientiertes Bankmanagement, Volume 1, 8th edition, Wiesbaden 2003.
	– Coenenberg, Adolf G. / Fischer, Thomas M. / Günther, Thomas: Kostenrechnung und Kostenanalyse, Stuttgart 2007.
	– Horváth & Partners (ed.): Beyond Budgeting umsetzen, Stuttgart 2004.

Course 4.3   Value Reporting

Course Topic / Description	Financial Accounting forms the basis for the reporting of banking activities for the different stakeholders of a bank (shareholders, supervisory bodies like FINMA or BIZ/SNB, etc.). Ideally, accounting can also provide information to help determine if value was created or destroyed. This course introduces the key standards of financial accounting and shows how they are linked. One focus is the major national and international IFRS, in particular IAS 39/IFRS 9. The knowledge students acquired in the course of studying for their Bachelor's degrees with regard to standard-based accounting will be built on in order to address specialist issues in specific areas. At the same time, students will study selected academic literature on accounting throughout the course to ensure that they acquire a profound understanding of the connection between the academic discourse and the practical implementation of specific topics.	
Course Code	4.3	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Silke Alves, PhD	silke.alves@zhaw.ch
Prerequisite Courses	None	
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's	☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4	☐ 9
Prerequisite Reading	- Müller-Stewens, G.; Lechner Ch.: Strategisches Management, 3rd edition, Stuttgart 2005. - Meyer, B.; Fehr, M.; Passardi, M.: Management Accounting, 2nd edition, Zurich 2008.	

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
After completing the course, students will be able to the following: - Understand financial and regulatory reporting as the basic information for supervisory bodies and investors - Know the legal requirements and supervisory regulations with regard to controlling for banks in Switzerland and analyze differences of national and international accounting standards - Develop a fundamental understanding of specific issues of banking accounting such as financial instruments or special consolidation problems, and discuss their implications for the financial reporting of banks - Deduce the effects of equity capital and liquidity regulations on the business policy and the business model of a bank - List the requirements for a bank's consolidated statement and make the required consolidation bookings - Analyze, convincingly present and comment financial information and regulatory reporting of banks

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The RRV-FINMA accounting rules and how they relate to industry and commerce, in particular IFRS & US GAAP standards - Financial instruments and how RRV-FINMA / IFRS are applied - Know the equity capital and liquidity regulations for banks in Switzerland	**Professional Competence :** Students are able to do the following: - Analyze the financial reporting of banks and evaluate it critically - Discuss the effects of applying different accounting standards to the financial reporting of banks - Explain the required evaluation and booking rules and use the methods correctly and efficiently, also in the context of financial instruments and for compiling the consolidated statement.
Methodological Knowledge: Students know the following: - The requirements and techniques for compiling consolidated financial statements; - How to quickly grasp complex issues based on the information provided by the financial and regulatory reporting of banks and actively contribute to developing practical, integrated solutions	**Methodological Competence:** Students are able to do the following: - Integrate considerations of strategic management and approaches of financial and regulatory reporting of banks - Transfer accounting models to current banking problems and critically evaluate them

Course Content	
Block 1 Silke Alves, PhD	**Reporting in Swiss Banks** - Overview of module and learning goals - Introduction: role, responsibilities, and core processes of the financial management of banks - The legal and supervisory framework: BankG, BankV, RRV-FINMA
Block 2 Silke Alves, PhD	**Accounting Rules for Banks in Switzerland** - RRV-FINMA - Disclosure requirements
Block 3 Silke Alves, PhD	**Financial Accounting Standards, in Particular the Balancing of Financial Instruments** - RRV-FINMA vs. IFRS / US GAAP - Evaluation & booking of financial instruments (RRV-FINMA vs. IAS 39 / IFRS 9)
Block 4 Silke Alves, PhD	**Regulatory Reporting** - Supervisory bodys and disclosure requirements - Equity capital rules: Swiss Finish vs. Basel III - Liquidity rules: Swiss Finish vs. Basel III - Too-big-to-fail regulation
Block 5 Silke Alves, PhD	**Consolidated Financial Statements** - Legal requirements vs. international accounting standards - Consolidation: prerequisites, procedure, result - Special consolidation issues: special purpose vehicles / entities (SPVs / SPEs)
Block 6 Silke Alves, PhD	**Financial & Regulatory Reporting in Swiss Banks** - Presentation of case study results - Solving additional accounting problems - Conclusion and Q&A

Mode of Instruction
☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentations

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam, 60 min. (open book)

Literature	**Mandatory Reading:**
	– Nagel-Jungo, G. / Schreiner, S.: Financial Bank Management, 1st edition, Zurich 2013.
	– Nagel-Jungo, Gabriela: Accounting, Controlling und Auditing bei Banken, 1st edition, Zurich 2012.
	– Various banking regulations, e.g., BankV, ERV, NBV, etc.
	– Various FINMA-RS, e.g., FINMA-RS 08/2, FINMA-RS 11/2, FINMA-RS 08/24, etc.
	– Various texts on the IFRS standards discussed in class
	– Current annual reports of UBS, CS Group, ZKB, and Julius Bär
	– Case studies and exercises provided by the instructors
	Additional Reading:
	– PricewaterhouseCoopers: Rechnungslegungsvorschriften für Banken und Effektenhändler, Update, Zurich 2007.
	– SNB Financial Stability Reports
	– "Too-Big-To-Fail" message

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Module 5   Investments

Module Topic / Aims	Conventional investments continue to feature prominently in investment portfolios. This module focuses on these types of investments. It discusses and analyzes the key factors of influence of investment decisions. Students also examine the findings of behavior finance research. They become familiar with the methods of stock analysis and the basic principles and methods of the management of fixed income portfolios. They acquire a more in-depth knowledge on the special problems associated with the asset allocation of pension funds and they learn about the process of professional asset investments.			
Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Others			
Module Type	*Degree Program*		*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance		C		
Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization			
ECTS Credits	6			
Courses	*Code*	*Course Title*		*ECTS Credits*
	5.1	Behavioral Finance		2
	5.2	Investment Research and Stock Valuation		2
	5.3	Fixed Income Management		2
	5.4	Mutual Funds and Pension Funds Management		2
	5.5	Investment Management		2
Module Owner	*Last Name, First Name*		*E-Mail/Phone*	
	Prof. Andreas Dietrich, PhD		andreas.dietrich@hslu.ch	
Prerequisite Competencies	Students have a Bachelor's degree in Business Administration with a Specialization in Banking and Finance. They already have a basic understanding of the topics of the individual courses.			

Prerequisite Modules	None
Follow-Up Modules	Module 6: Alternative Investments
Comments	The performance assessments to be completed for this module may not be repeated.

Course 5.1   Behavioral Finance

Course Topic / Description	The question how human behavior affects decisions on the financial markets is the main issue of this course. It examines whether financial markets follow specific patterns. First, we will analyze a model for asset price development on the basis of the US business cycle; next, we will get to know several typical patterns of behavioral finance; thirdly, we will evaluate the theoretical impacts by discussing several case studies: the Euro Crises, the US housing & homebuilders market, Apple, and Ford. Literature: Scientific literature and essays published in the Economist.
Course Code	5.1
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Stefan Kull, PhD stefan.kull@hslu.ch
Prerequisite Courses	Module 1: Market and Environment of Financial Services Providers (Macroeconomy and Stability of Global Financial Markets)
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *Students are able to judge the markets correctly based on the model of asset price development.*
2. *Students are able to recognise the most important patterns of behavioral finance.*
3. *Students are able to reflect their decision making procedure.*
4. *Students are able to judge markets based on the theory of behavioral finance.*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Expert knowledge: Students - know the model of asset price development in detail - can judge the most important patterns of behavioral finance - can judge actual investments	**Expert knowledge:** Based on real problems students are able - to judge financial markets based of the price development model - to explain the most important patterns of behavioral finance - to analyze fundamental figures and compare them with paid prices
Methodological competence: Students - reflect the own behavior critically - understand methods of critical and networked thinking	**Methodological competence:** Students - reflect on their own behavior as far as financial market decisions are concerned

Course Content	
Session 1 (4 lessons) Stefan Kull, PhD	**Topic:** - A model of asset price development
Session 2 (4 lessons) Stefan Kull, PhD	**Topic:** - Specific patterns I

Session 3 (4 lessons) Stefan Kull, PhD	Topic: - Specific patterns II
Session 4 (4 lessons) Stefan Kull, PhD	Topic: - Case I: The Apple Story - Case II: US Homebuilders
Session 5 (4 lessons) Stefan Kull, PhD	Topic: - Case III: Euro - Case IV: Ford
Session 6 (4 lessons) Prof. Th. Hens, PhD	Topic: - Behavioral finance for private banking

Mode of Instruction
☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Lecture, discussion, partner work, group work, exercises, and presentation
Self-Study	Study of literature, preparation, and follow-up of classes

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	

Literature	**Mandatory literature:** - **Montier James** Behavioural Investing. A practitioner's guide to applying behavioural finance, Wiley Finance, 2007. - **Kull Stefan** Lecture notes - **Economist:** Reader EURO Crises - **Rapp, H.-W.** „Der tägliche Wahnsinn hat Methode", in: Jünemann, B./Schellenberger, D. (ed.): Psychologie für Börsenprofis, Stuttgart: Schäffer/Poeschel, 2000. [Sorry – only available in German] - **Lewis, M**. The Big Short, New York: W.W. Norton, 2010 **Additional literature:** - **Hens, T. /Bachmann K.** Behavioural finance for private banking, West Sussex: Wiley Finance, 2009. - **Kahneman, D.** Thinking Fast and Slow, New York: Farar, Straus & Giraud, 2011. - **Aronson, E.** Sozialpsychologie: Menschliches Verhalten und gesellschaftlicher Einfluss, Heidelberg, 1994.

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  "Eine Theorie der gelernten Sorglosigkeit", in: Mandl. H. (Hrsg.) Bericht über den 40. Kongress der Deutschen Gesellschaft für Psychologie in München, Göttingen, 1996.
- **Frey, D./Stahlberg, D.**
  "Erwartungsbildung und Erwartungsänderung bei Börsenakteuren", in: Maas, P./Weibler, J. (Hrsg.) Börse und Psychologie: Plädoyer für eine neue Perspektive, pp. 102-139, Cologne, 1990.
- **Goldberg J./Nitzsch R.**
  Behavioral Finance, Munich, FinanzBuch Verlag, 2000.
- **Hertel, P.T./Harding, T.S.**
  "Remembering With and Without Awareness in a Depressed Mood: Evidence of Deficits in Initiative" in: Journal of Educational Psychology (JoEP), 1990, pp. 45-59.
- **Hummler, K.**
  "Weshalb Überschwang rational ist", in: Wegelin & Co. Privatbankiers, Anlagekommentar, No. 200, 3. April 2000.
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  "Analyst Judgment: The Efficient Market Hypothesis versus a Psychological Theory of Human Judgment", in: Organizational Behavior and Human Decision Process, 42, pp. 284-302, 1988.
- **Kahneman, D./Tversky, A.**
  "On the Psychology of Prediction", in: Psychological Review, No. 80, pp. 237-251, 1973.
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  "Prospect Theory: An Analysis of Decision under Risk", in: Econometrica, Vol. 47, No. 2, pp. 263-291, 1979.
- **Kiehling, H.**
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- **Kramer, R.M./Newton, E./Pommerenke, P.L.**
  "Self-Enhancement Biases and Negotiator Judgment: Effects of Self-Esteem and Mood", in: Organizational Behavior and Human Decision Processes, pp. 110-133, 1993.
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  „Calibration of Probabilities: The State of the Art to 1980", in: Kahneman, D./Slovic, P./Tversky, A. /(Hrsg.) Judgement under Uncertainty: Heuristics and Biases, Cambridge, 1982, pp. 306-334.
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  "Regret Theory: An Alternative Theory of rational Choice under Uncertainty", in: the Economic Journal, pp. 805-824, 1982.
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  "Wahrnehmungs- und Informationsverarbeitungsprozesse an der Börse", in: Maas P./Weibler, J. (Hrsg.) Börse und Psychologie: Plädoyer für eine neue Perspektive, pp. 72-101, Cologne, 1990.
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  "What do People Bring to the Stock Market (Besides Money)? The Economic Psychology of Stock Market Behavior", in: Gilad, G./Kaish, S. (ed.) Handbook of Behavioral Economics, Vol. B., pp. 273-307, Berne 1986.
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"Rational Pricing of Internet Companies", in: Financial Analysts Journal, Vol. 56/3, 2000(a), pp. 62-75.
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"Stock prices and social dynamics", in: Brooking Papers on Economic Activity, Vol 2. pp. 457-498, 1984.
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Irrationaler Überschwang, Frankfurt: Campus, 2000.
- **Tversky, A./Kahneman, D.**
"Judgment under Uncertainty: Heuristics and Biases", in: Science: Vol. 185, pp. 1124-1131, 1974.
- **Tversky, A./Kahneman, D.**
"The Framing of Decisions and the Psychology of Choice", in: Science: Vol. 211, pp. 453-458, 1981.

Course 5.2   Investment Research and Stock Valuation

Course Topic / Description	Stocks are among the most important capital investments. There are many different methods to evaluate and analyze stocks. This course looks at models based on share prices as well as at instruments based on fundamental data. The former are only of significance for listed companies with stock prices that can be followed. The latter however are also applicable in the case of non-listed companies (e.g., in private equity). The overall goal of Course 5.2 is for students to learn to critically evaluate and apply the key stock evaluation methods. The greatest challenge is the uncertainty investors need to deal, i.e. the "unknown" variables of future development.
Course Code	5.2
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Philipp Lütolf, PhD philipp.luetolf@hslu.ch
Prerequisite Courses	
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *Students know the main factors of influence of stock values*
2. *They are aware of the limitations of theoretical stock price models and can estimate their practical relevance.*
3. *They can evaluate stock prices using the instruments of technical analysis.*
4. *They can estimate stock prices using DCF methodology as well as multiples.*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :**
Students know the following:	Students are able to do the following:
- How to interpret the factors of influence of stock price development	- Correctly evaluate changes in organizations and in their environment and draw the relevant conclusions for the analysis of stocks
- The problems of the capital asset pricing model for	

stock pricing and the arbitrage pricing theory - The significance of market efficiency for the ability to evaluate stocks - Technical analysis to evaluate stocks	- Realistically estimate the ability to predict share prices - Evaluate the possibilities and limitations of technical stock analysis
Methodological Knowledge: Students know the following: - DCF method and multiples (in detail) - The connection between theoretical stock price models and practical equity capital cost estimation - Some examples of methods to analyze charts, trends, and momentum	**Methodological Competence:** Students are able to do the following: - Correctly apply models of stock pricing - Take into account special factors of influence in the context of companies and their environment and use them in analyzing stocks - Use suitable software to create charts and calculate trends and momentum

Course Content	
Block 1 (4 lessons) Nicolas Bürkler	**Topic 1: Evaluation Methods and Capital Market Theory** - Evaluation methods and theories - Evaluation using capital market theory
Block 2 (8 lessons) Prof. Dr. Philipp Lütolf	**Topic 2: Fundamental Stock Analysis (DCF and Multiples)** - DCF: Application problems and case study - Multiples: Application problems and short case studies
Block 3 (12 lessons) Nicolas Bürkler	**Topic 3: Price Dynamics and Stock Evaluation** - Technical analysis: Application problems and case study - Value driver models: Application problems and case study

Mode of Instruction	
☒ Discipline-specific ☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentation

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam, 60 minutes (open book, laptop)

Literature	**Mandatory Reading:** To be issued in class or uploaded to Ilias (according to the course program), among others **Additional Reading:** See course program

Course 5.3   **Fixed Income Management**

Course Topic / Description	Students extend their knowledge of the various active and passive bond portfolio management strategies and their implications on the optimal bond portfolio.
Course Code	5.3
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Roger Rissi, PhD roger.rissi@hslu.ch
Prerequisite Courses	Foundations in maths and statistics, fundamental knowledge of fixed income markets and instruments
Follow-Up Courses	None
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *Participants know the most important active and passive bond portfolio management strategies and are able to apply them to a real-world portfolio. They will be in a position to scientifically reflect on the adequacy of the corresponding strategy with respect to the investors' investment goals*
2. *Participants know the most important interest rate and credit derivatives and their application in order to hedge the interest rate and credit risk of a fixed income portfolio*
3. *Participants know simple quantitative approaches in the field of fixed income credit management*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Expert knowledge: Students - know the most important active and passive bond portfolio management strategies - know the most important interest rate and credit derivatives and their applications for the hedging of a fixed income portfolio	**Expert skills:** Students are able to - judge the adequacy of the various bond portfolio management strategies - implement the most important investment and hedging strategies - adapt existing knowledge in the area of asset allocation from other areas to the fixed income space
Methodological knowledge: Students - understand the underlying economic foundations of each strategy - know the key similarities and differences of fixed income strategies compared to other asset classes	**Methodological skills** Students - are able to implement the methods/concepts in practice - are in a position to judge complex situations in the fixed income area and are able to propose suitable solutions

Course Content	
Session 1 Roger Rissi, PhD	**Topics** - Introduction - Features of debt securities; risks associated with investing in bonds - Overview of bond sectors and instruments - Understanding yield spreads - Introduction to the valuation of debt securities - Yield measures, spot rates, and forward rates
Session 2 Roger Rissi, PhD	**Topics** - Valuing bonds with embedded options - Mortgage-backed sector of the bond market - Valuation of mortgage and asset-backed securities - CMOs, PACS, etc.
Session 3 Roger Rissi, PhD	**Topics** - Interest rate derivatives and their valuation - International bond portfolio management - Controlling interest rate risk with derivatives
Session 4 Roger Rissi, PhD	**Topics** ▪ Active bond portfolio management strategies
Session 5 Roger Rissi, PhD	**Topics** ▪ Passive bond portfolio management strategies
Session 6 Roger Rissi, PhD	**Topics** ▪ Quantitative credit fixed income management

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	On-site training, presentations, group work: review of basic methods and concepts & case studies
Self-Study	Review of study material → for details please consult the work plan

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0	40.0	30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam at end of term, 60 minutes (closed book)

Literature	**Mandatory reading:** - Scripts, papers, and other handouts distributed in class - Selective chapters from „Options, Futures and other Derivatives" von John C. Hull, 7th edition → see work plan for further details **Additional reading:** - „Fixed Income Analysis", F.J. Fabozzi, CFA Institute, Investment Series, 2nd edition (or newer), ISBN 978-0-470-05221-1. - Upon request

Course 5.4   Management of Pension Funds and other Funds

Course Topic / Description	Students deal with the theoretical-conceptual basics and the newest practical implementations of the investment management of funds and pension funds.
Course Code	5.4
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Peter Meier, PhD mepe@zhaw.ch
Prerequisite Courses	None
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	Body/Kane/Markus, (Essentials of) Investments, or similar textbooks on investments

Prerequisite Competencies
1. Students know the newest concepts of structured investment management processes.
2. They are able to assess the investment management of mutual funds and pension funds with regard to the application of modern methods.
3. They can critically assess scientific methods evaluate investment strategies.

Competencies to Be Developed / Main Goals (approx. 2 to 3)
Students deal with theoretical-conceptual basics and the newest practical implementations of investment management of funds and pension funds. They get to know various practical portfolio construction methods and are able to evaluate to what extent they comply with the state-of-the-art in this area. Based on scientific articles students deal with alternative indexing methods, the risk-parity approach, as well as mutual funds, and they can appraise their risk/return properties. Finally, a guest lecturer introduces the investment process of a leading Swiss pension fund.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Expert knowledge: Students - know the methods of portfolio construction and alternative indexing - know to what extent theoretical investment concepts are applied in practice - understand the investment process of selected fund managers and pension funds	**Expert skills:** Students - can critically assess indices and benchmarks and their use in practitioner portfolio management - are able to identify theoretical-methodical concepts behind the investment processes of funds and pension funds
Methodological knowledge: Students - understand the problems evolving through the implementation of investment concepts in practice - understand the limitations and weaknesses of indices and methods of performance measurement - know the best practices of investment procedures of funds and pension funds	**Methodological skills:** Students - can evaluate to what extent practical investment processes reflect the state-of-the-art of both research and best practice

Course Content	
Session 1 Prof. Peter Meier, PhD	Practitioner Portfolio Construction
Session 2 Prof. Peter Meier, PhD	Alternative Indexing
Session 3 Prof. Peter Meier, PhD	Mutual Funds
Session 4 Fabian Dori, 1741 Asset Management	Alternative Indexing with regard to the Risk Parity Approach
Session 5 Jürg Tobler, PKZH	Management of Pension Funds: The example of the Pension Fund of the City of Zurich
Session 6 Jürg Tobler, PKZH	Management of Pension Funds: The example of the Pension Fund of the City of Zurich

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, discussion of tasks, and case studies
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and the preparation of short presentation

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam (60 min., open book)

Literature	**Session 1:** - AMENC N. et al. (2011), Practitioner Portfolio Construction and Performance Measurement: Evidence from Europe, FAJ, May/June, pp. 39-49 **Session 2:** - XIAOWEI K., (2012) Evaluating Alternative Beta Strategies, Journal of Indexes Europe, March/April, ssrn - MELAS D. et al. (2011), Harvesting Risk Premia with Strategy Indices, MSCI, Sep-11, ssrn **Session 3:** - CREMERS M. Et al. (2011), The Mutual Fund Industry Worldwide: Explicit and Closet Indexing, Fees, and Performance, ssrn **Sessions 4 to 6:** - Scripts of guest lecturers

Course 5.5   Investment Management

Course Topic / Description	Students study the challenges of the investment process, which is the centerpiece of all investment advice and decisive for the success of an investment strategy.	
Course Code	5.5	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Prof. Karsten Döhnert, PhD	karsten.doehnert@hslu.ch
Prerequisite Courses	None	
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's	☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2	☐ 4 ☐ 9
Prerequisite Reading	Body/Kane/Markus, (Essentials of) Investments, or a similar textbook on investments	

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *Students know the individual elements of the investment process and the significance of asset allocation.*
2. *They are able to use various quantitative and qualitative methods to determine the allocation of assets.*
3. *They can conduct a performance attribution analysis.*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The various theories and the significance of asset allocation - The structure and procedures of the investment process	**Professional Competence :** Students are able to do the following: - Critically assess an allocation of assets - Develop strategic asset allocation for different investor profiles
Methodological Knowledge: Students know the following: - The strengths and weaknesses of the traditional Markowitz method for allocating assets - Approaches to determine robust asset allocations - The foundations of a qualitative investment approach - The performance elements in an investment process	**Methodological Competence:** Students are able to do the following: - Apply the mean variance approach themselves (Excel and TR) - Carry out a performance attribution analysis by themselves

Course Content	
Block 1 (4 lessons) Prof. Karsten Döhnert, PhD	**Introduction, Asset Allocation, Single Index Model** - Introduction and definition of topic - Foundations of the investment process - Significance of asset allocation - The single index model
Block 2 (4 lessons) Yvonne Seiler, PhD	**Mean-Variance Approach (Markowitz) in Theory and Excel** - The theory of mean-variance optimization according to Markowitz - The mathematics of portfolio optimization - Determining optimal allocations in MS Excel
Block 3 (4 lessons) Roger Rissi, PhD	**Methods to Create Robust Asset Allocation** - Weaknesses of mean-variance optimization - Black-Litterman portfolio optimization

	- Weitere Ansätze zur Erstellung robuster Asset Allocations
Block 4 (4 lessons) Prof. Maurice Pedergnana, PhD / Nicolas Bürkler	**Qualitative Investment Approach to Create an Allocation of Assets** - Strategic investment management - Benefits and drawbacks of a qualitative investment approach
Block 5 (4 lessons) Prof. Karsten Döhnert, PhD	**Performance Analysis and Attribution** - The significance of performance Analysis - The Brinson approach to calculate attribution
Block 6 (4 lessons) TBA	**Asset Allocation and Performance Measuring in Practice** - Example of an investment process: a private bank

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentation

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam of 60 minutes (closed book)

Literature	**Mandatory Reading:** To be distributed in class or uploaded to Ilias (acc. to course program) **Additional Reading:** - Dichtl, Kleeberg und Schlenger (2003); „Handbuch Asset Allocation"; Uhlenbruch Verlag Bad Soden. - Elton und Gruber (2009); „Modern Portfolio Theory and Investment Analysis"; Wiley. - Zimmermann, Drobetz und Oertmann (2003); „Global Asset Allocation"; Wiley. - Bacon (2008); „Practical Portfolio Performance Measurement and Attribution"; Wiley. - Pümpin und Pedergnana (2008); „Strategisches Investment Management"; Haupt Verlag Bern. - Fischer, B. (2010); „Performanceanalyse in der Praxis"; Oldenbourg.

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Module 6   **Alternative Investments**

Module Topic / Aims	Alternative investments have gained in importance in asset management over the last few years. Investments in hedge funds, private equity, real estate, commodities and other categories (e.g., fine art) are made with the aim to improve the risk return profile of investment portfolios. Structured products also enable investors to implement their investment ideas and, if possible, reduce the risks. This module focuses on alternative investments and structured products and analyzes them with regard to their function, market participants and markets, as well as how they contribute to the risk and return of portfolios.
Module Code	
Degree Program	Master of Science in Banking and Finance
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Others

Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		

Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization
ECTS Credits	6

Courses	*Code*	*Course Title*		*ECTS Credits*
	6.1	Hedge Funds		2
	6.2	Private Equity		2
	6.3	Real Estate		2
	6.4	Commodities and other Alternative Investments		2
	6.5	Structured Products		2

Module Owner	*Last Name, First Name*	*E-Mail/Phone*
	Prof. Andreas Dietrich, PhD	andreas.dietrich@hslu.ch

Prerequisite Competencies	Students have completed a Bachelor's degree program in Business Administration with a specialization in Banking and Finance. In addition, they have completed Module 4, "Investments". They already have a solid foundation in the topics discussed in the various courses of this module. In particular, their knowledge includes the following: - Financial instruments (options and futures) - Investment funds - Portfolio theory (capital asset pricing; arbitrage pricing theory) - Performance risk measures (Sharpe ratio, Jensen alpha, VaR) - Fixed-interest investments - Forms of interest - Statistics (basic terminology, probability distribution, etc.) and financial statistics

Prerequisite Modules	Module 5: Investments
Follow-Up Modules	
Comments	The performance assessments to be completed for this module may not be repeated.

Course 6.1   Hedge Funds

Course Topic / Description	The aim of this course is for students to understand how hedge funds work and be able to evaluate their suitability for specific investment strategies.
Course Code	6.1
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Peter Meier, PhD peter.meier@zhaw.ch
Prerequisite Courses	None
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies
In the course of studying for their Bachelor's/Master's, students have acquired a solid foundation in:
- Financial instruments, such as investment funds and, in particular, options and futures
- Portfolio theory: capital asset pricing and arbitrage pricing theory
- Performance and risk measuring, such as Sharpe ratio, Jensen alpha, VaR, CVaR, etc.
- Basic knowledge of active investment strategies and investment funds

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Students are familiar with hedge funds and the hedge fund industry. They can name the major investment styles and their return, risk, and portfolio characteristics.
2. Students are able to evaluate hedge funds and design simple strategies.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The return, risk, and portfolio characteristics of hedge funds and funds of hedge funds (FoHF) - Important tools such as short selling and leverage - Key hedge fund strategies - Typical institutional and legal structures of hedge funds and FoHF	**Professional Competence :** Students are able to do the following: - Evaluate hedge funds and FoHF - Identify and classify hedge fund investment styles
Methodological Knowledge: Students know the following: - The complexities of indices and performance measures - Procedures to replicate hedge fund strategies - Procedures to evaluate and select hedge funds and FoHF	**Methodological Competence:** Students are able to do the following: - Explain hedge fund strategies based on their accounting and risk positions (balance sheet) as well as based on their return risk characteristics (using profit functions) - Design hedge fund strategies and demonstrate how market anomalies can be utilized in suitable investment strategies

Course Content	
Block 1 (4 lessons) Prof. Peter Meier, PhD	**Introduction:** Definition, alternative investments, and hedge fund portfolios (FoHF, etc.) Market, development, and significance Hedge funds compared to traditional funds and private equity

Block 2 (4 lessons) Prof. Peter Meier, PhD	**Institutional and Legal Structures** Offshore versus onshore funds **Short selling, leverage, and Liquidity**
Block 3 (4 lessons) Prof. Peter Meier, PhD	**Hedge Fund Strategies** Arbitrage, event-driven, directional Hedge fund balance sheets and profit diagrams Alpha and beta strategies
Block 4 (4 lessons) Prof. Peter Meier, PhD	**Performance and Fees** Indices, Index distortions Return distributions of hedge funds (fat tails) Hurdle rates, high water marks Alpha and risk measuring using multifactor models
Block 5 (4 lessons) Prof. Peter Meier, PhD	**The Investment Process** Example of a FoHF manager Due diligence of hedge funds Use of hedge funds in asset allocation (diversification)
Block 6 (4 lessons) Prof. Peter Meier, PhD	Talks by guest speakers on specific hedge fund strategies Discussion of scientific articles

Mode of Instruction
☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentation

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact lessons	Contact Hours	Self-Study lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Written exam (60 minutes), open book

Literature	**Mandatory Reading:** (to be issued by instructor) - Slides provided by instructor and guest speakers - FUNG W., HSIEH D.A. (2006), Hedge Funds: An Industry in Its Adolescence, Federal Reserve Bank of Atlanta, 2006, 4th Quarter - HASANHODZIC J., LO A.W. (2007), Can Hedge fund returns be replicated?: The linear case, Journal of Investment Management, No. 2, pp. 5 – 45 - IBBOTSON R.G., P. CHEN, K.X. ZHU (2011), The ABCs of Hedge Funds: Alphas, Betas, and Costs, Financial Analyst Journal, Jan/Feb **Introductory Reading:** - INEICHEN, A. (2008), AIMA'S ROADMAP TO HEDGE FUNDS, AIMA - UBS, Hedge Fund Education Series, 2011

	Additional Reading: - FUNG W., HSIEH D.A. (2004), Hedge Fund Benchmarks: A Risk-Based Approach, Financial Analyst Journal, Vol. 60, No. 5, 65 et seq. - HILPOLD, C., KAISER, D.G. (2005), Alternative Investment-Strategien, Weinheim - LHABITANT, F. (2006), Handbook of Hedge Funds, John Wiley & Sons Inc. - SHEIKH, A.Z., H. QUAO (2010), Non-Normality of Market Returns: A Framework for Asset Allocation Decision Making, The Journal of Alternative Investments, Vol. 12, Issue 3

Course 6.2   Private Equity Investments

Course Topic / Description	This course aims to illustrate how private equity investments work. It evaluates the different private equity investment strategies. Anticipated course content: Analyzing market players, business models, private equity products (direct and indirect investments/unlisted and listed/funds, and fund of funds), different investment strategies and their impact on cash flow patterns, risk/return aspects, valuation of private equity portfolios, value creation through strategic/financial/operational value drivers, indices and benchmarks, correlation to other asset classes, access to information and research, asset allocation and portfolio allocation, and monitoring.	
Course Code	6.2	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Prof. John Davidson, PhD	john.davidson@hslu.ch
Prerequisite Courses	None	
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's	☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4	☐ 9
Prerequisite Reading		

Prerequisite Competencies

Competencies to Be Developed / Main Goals (approx. 2 to 3)
In the course of studying for their Bachelor's/Master's, students have acquired a solid foundation in: - Financial instruments such as investment funds (open and closed funds) - Portfolio theory: capital asset pricing (assumptions) - Performance and risk measurements, such as Sharpe ratio, etc. - Active investment strategies and investment funds (basic knowledge) - Statistics (basic knowledge)

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The principles and mechanisms of private equity investments - The investment opportunities available	**Professional Competence :** Students are able to do the following: - Understand the interests of the various market operators - Critically assess private equity investments

Methodological Knowledge:	Methodological Competence:
Students know/understand the following:	Students are able to do the following:
- The investment process for single funds - The investment process for fund of funds and their specific monitoring and controlling aspects - The English terminology (course materials mainly in English)	- Apply the process of critical, integrated thinking in the context of a due diligence process for single funds and fund of funds - Analyze the benefits and drawbacks of investment products for the investment in question

Date (Instructor)	No. of lessons	Topic	Literature
Course Coordinator John Davidson	**24L**	**Private Equity** The students get to know the different mechanics of private equity investments and their appropriateness for different investors. They examine market participants, the investment process for single funds and fund of funds, etc.	
Block 1	**4L**	**Private Equity as an Asset Class** i) Definition ii) Private equity investment opportunities (direct vs. indirect/MBO vs. venture) iii) Fundamentals iv) Trends and development in the private equity industry v) PE literature (journals, organizations, newsletters) vi) Potential employers in the field of private equity in Switzerland and requirements.	
		Self-study: - Davidson, John (2005): „MBO mittels Private", Haupt Verlag, pp. 19-56, pp. 57-65, pp. 73-129, pp. 129-236	
Block 2	**4L**	**MBO by Means of Private Equity** i) MBO from the perspective of PE (investment strategy, participation search, due diligence, evaluation, deal structuring, monitoring, exit, etc.) ii) MBO from the perspective of management (empirical analysis of the transaction, monitoring, and exit phase)	
		Self-study: - TBA	
Block 3	**4L**	**Investment Process and Monitoring for a Single Fund (Direct Investments)** i) Fund raising ii) Investment strategy for private equity fund (business model/independent vs. captive, value generation, geography, sector, etc.) iii) Investment process incl. due diligence and valuation iv) Monitoring incl. performance measurement v) Exit	
		Self-study: Review of listed private equity products (Shape, PEH, Castle, APEN)	
Block 4	**4L**	**Investment Process and Monitoring for a FoF** i) Capital raising universe ii) Strategy and investment process for a portfolio iii) Monitoring, performance measurement, benchmarking and controlling iv) Portfolio, risk and liquidity management v) Over-commitment strategy vi) Limited partnership agreement / checklist	
		Self-study: TBA	
Block 5	**4L**	**Analysis and Discussion of Private Equity Products** i) Analyze and comparison of FoF products in the market ii) Performance attribution iii) The principles of fund evaluation (acc. to EVCA) iv) Risk analysis v) Advantages and disadvantages of different products	
		Self-study: Review articles for next session	
Block 6	**4L**	**Discussion of Developments in the Private Equity Field** - See article below for "Block 6" and "Other options"	Scientific article

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	

Forms of Teaching and Learning	Goals and Content
Contact lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentation

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact lessons	Contact Hours	Self-Study lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50.0%	20.0%	**100%**

Performance Assessments	Written exam
	Summary and presentation of an article

Literature	**Mandatory Reading:**
	- Davidson, John (2005): „MBO mittels Private", Haupt Verlag (to be made available for purchase in the first lesson)
	Additional Reading:
	Books
	- Anson, Mark J.P. (2006): „Handbook of Alternative Assets" 2nd edition. Frank J. Fabozzi, ed. New York: John Wiley & Sons, 2006
	- Mathonet, P-Y., Meyer, T.: "J Curve exposure: Managing a Portfolio of Venture Capital and Private Equity Fund", John Wiley & Sons, 2007
	- Meyer, T, Mathonet, P-Y.: "Beyond the J Curve: Managing a Portfolio of Venture Capital and Private Equity Fund", John Wiley & Sons, 2005
	Journal Articles
	- Achleitner, A and Nathusius, E: Angels or Demons? Evidence on the Impact of Private Equity Firms on Employment, Working Papers Series, May 2009./downloaded
	- Gonzalez-Heres, J., and K. Beinkampen. "The Convergence of Private Equity and Hedge Funds." Morgan Stanley's Investment Management Journal. Vol. 2, no. 1, 2006, p. 1-10/CAIA II Curriculum September 2009./not downloaded, sent email
	- Conroy, R. and Harris, R. "How Good are Private Equity Returns?" Journal of Applied Corporate Finance. Vol. 19, no. 3, Summer 2007, pp. 96-108./ CAIA II Curriculum September 2009./download (fee required)
	- Gottschalg, O.: Quantitative Private Equity Fund Due Diligence: Possible Selection Criteria and their Efficiency/downloaded, interesting Appendix or abstract in BAI Newsletter September 2007, pp. 35-41.
	- Meredith, R., N. De Brito, and R. De Figueiredo. "Portfolio Management with Illiquid Investments." Citi Alternative Investments. June 2006, pp. 26-31./ CAIA II Curriculum September 2009./download cost effective or get an account with Citi https://www.citigroupai.com/cai/instPortal/help.do
	Other Publications
	- Gottschalg, O.: Die Performance von Private Equity im Vergleich zu Public-Market-Investments-Theoretischer Hintergrund und Empirische Ergebnisse, BAI

	Newsletter April 2006, pp. 48-52. Research: - EVCA Yearbook 2008, Switzerland, 261-270, 2009/downloaded - Preqin Special Report: Terms and Conditions after the Crash Changes in Private Equity Terms and Conditions Following the Credit Crunch 01 July 2009 (downloaded/presentation/summary)/downloaded

Course 6.3   Real Estate

Course Topic / Description	The course discusses how real estate investment work and the suitability of real estate for specific investors. It examines the market operators, the markets, and the investment process at the level of single funds, as well as the controlling and monitoring from a portfolio perspective.	
Course Code	6.3	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Prof. John Davidson, PhD	John.davidson@hslu.ch
Prerequisite Courses		
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9	
Prerequisite Reading		

Prerequisite Competencies
In the course of studying for their Bachelor's/Master's, students have acquired a solid foundation in: - Financial instruments such as investment funds (open and closed funds) - Statistics - Performance and Risk measurements, such as Sharpe ratio, etc. - Active investment strategies and investment funds (basic knowledge)

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *Students are able to understand and explain the different real estate investment options* 2. *Students know the individual elements of the investment process* 3. *Students know the different factors of influence of the real estate markets*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the following: - The principles and mechanisms of real estate investments - The different investment options	**Professional Competence :** Students are able to do the following: - Understand the interests of all market operators - Critically examine real estate investment opportunities
Methodological Knowledge: Students understand/know the following: - The Investment Process for single funds - The different factors of influence of specific real estate markets	**Methodological Competence:** Students are able to do the following: - Analyze the investment opportunities for a specific client based on different criteria

Date (Instructor)	No. of Lessons	Topic
Course Coordinator Head of Program John Davidson	**24L**	**Real Estate** The students get to know the different mechanics of real estate investments and their appropriateness for different investors. The specific real estate markets and market operators as well as the investment process are examined.
Block 1	4L	**Real Estate as an Asset Class** i) Definition and real estate as an investment ii) Real estate investment opportunities (direct vs. indirect) iii) Market situation iv) Trends and development in the real estate industry v) RE literature (journals, organizations, newsletters) vi) Potential employers in the field of real estate in Switzerland
		Self-study: i) Distribute tasks for group project ii) Article
Block 2	4L	**Theme: Investment Strategy, Investment Process, Monitoring, and Exit for a Single Fund** i) Different business models (independent vs. captive) ii) Investment strategy for real estate funds (risk/performance, sectors, geography, etc.) iii) Investment process incl. due diligence and real estate valuation iv) Monitoring incl. performance measurement v) Exit vi) Capital raising (institutional investors, private investors)
		Self-study: TBA - Morgan Stanley: Strategic Real Estate Investing - Self-study: CS Research Switzerland
Block 3	4L	**Real Estate Markets** i) Analyze real estate markets (tenancy agreements, sectors, geographies) ii) Market developments in different locations (CBRE numbers/supply and demand) such as Asia and Europe iii) Research sources
		Self-study: Schroders Monitoring
Block 4	4L	**Real Estate Products: Investment Process and Monitoring for a Fund of fund, Indirect Real Estate Portfolio, and Listed Products** i) Capital raising universe (Preqin) ii) Strategy and investment process for a real estate portfolio iii) Monitoring, performance measurement, benchmarking and controlling iv) Portfolio, Risk and liquidity management v) Over-commitment strategy vi) Limited partnership agreement / checklist
		Self-study: Mansour, A., and H. Nadji. "Performance Characteristics of Infrastructure Investments." RREEF Research - A Member of the Deutsche Bank Group. August 2007, pp. 1-18./CAIA II Material
Block 5	4L	**Discussion of Developments in the Real Estate Investment Field**
		Self-study: TBA
Block 6	4L	**Does Infrastructure belong to Real Estate?** i) Infrastructure as an asset class ii) Equity investments iii) Debt investments **Agricultural Land Investment and Timber Investment** ii) Agricultural land characteristics iii) Timber investment characteristics

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and preparation of short presentation

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Written exam, closed book
	Summary and presentation of an article

Literature	Mandatory Reading:
	- UBS Research Focus, Immobilien, 2005
	- Swiss Funds Association SFA, Kennzahlen von Immobilienfonds, April 2008
	- INREV Guidelines and Definitions; www.inrev.org
	Additional Reading:
	Books
	- Davidson, J. (ed.): Private Equity Real Estate, Baar, 2011.
	- Real Estate Finance and Investments: Risks and Opportunities, Linneman, Peter. Linneman Associates, 2004.
	- Rottke, N. (Hrsg.): Ökonomie vs. Ökologie – Umwelteffizienz in der Immobilienwirtschaft?, Köln 2009.
	- Rottke, N. (ed.): Handbook Real Estate Capital Markets, Köln 2008.
	- Rottke, N. / Rebitzer, D. (Hrsg.): Handbuch Real Estate Private Equity, Köln, 2006.
	- Wernecke, M. / Rottke, N. (Hrsg.): Praxishandbuch Immobilienzyklen, Köln 2006.
	Journal Articles
	- Case, Bradford; Goetzmann, William; Rouwenhorst, K. Geert Global Real Estate Markets: Cycles and Fundamentals 1999, EconPapers
	- Chen, Jun ; Hobbs, Peter Global Real Estate Risk Index 2003, Journal of Portfolio Management, Volume 29, Number 5, pp. 66-75
	- erring, Richard J.; Wachter, Susan Real Estate Booms and Banking Busts: An International Perspective 1998, EconPapers
	- Fabozzi, Frank J.; Gordon, Jacques N.; Hudson-Wilson, Susan Why Real Estate? 2003, Journal of Portfolio Management, Volume 29, Number 5, pp. 12-27
	- Georgiev, Georgi ; Gupta, Bhaswar ; Kunkel, Thomas Benefits of Real Estate Investment 2003, Journal of Portfolio Management, Volume 29, Number 5, pp. 28-34

	- Hahn, Thea C.; Geltner, David; Gerardo-Lietz, Nori Real Estate Opportunity Funds 2005, Journal of Portfolio Management - Fisher, Jeffrey D. Performance of Real Estate Portfolios 2005, Journal of Portfolio Management - Loeys, Jan; Panigirtzoglou, Nikolaos Are Alternatives the Next Bubble? 2006, Journal of Alternative Investments, Volume Winter, pp. 54 – 76 - Mansour, A., and H. Nadji. "Performance Characteristics of Infrastructure Investments." RREEF Research - A Member of the Deutsche Bank Group. August 2007, p. 1-18./CAIA II Material - Idzorek, T.M., M. Barad, and S.L. Meier. "Global Commercial Real Estate." The Journal of Portfolio Management. Special Issue, 2007, pp. 37-52. - Crouhy, M., Jarrow, R. and Turnbull, S. "The Subprime Credit Crisis of 2007." The Journal of Derivatives. Fall 2008, pp. 81-110. - Weistroffer, C. "Coping with Climate Change." Deutsche Bank Research. November 15, 2007, pp. 1-20. **Research/White Papers** - RREEF Research: Global Real Estate Investment and Performance 2008 and 2009; http://www.irei.com/web/do/pub/research/view - Martha S. Peyton, Ph.D. and Steven Bardzik, Ph.D. : What is Risk Management and How Does it Apply to Real Estate? http://www.ipe.com/realestate/whitepapers.php

Course 6.4   Commodities and Other Alternative Investments

Course Topic / Description	This course provides an overview of the principles and basic details of commodity investing and other selected alternative investments. After completing the course, students will be able to: − Understand and explain the mechanics of the major commodities markets, selected other alternative investments and their derivatives, − Explain and evaluate trading strategies involving commodities and other alternative investments against the background of pricing, risk management, and asset allocation.	
Course Code	6.4	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Roger Rissi, PhD	roger.rissi@hslu.ch
Prerequisite Courses		
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
ECTS Credits	☐ 0 ☒ 2 ☒ 4 ☐ 9	
Prerequisite Reading		

Prerequisite Competencies
1. Basic mathematics and statistics
2. Basic knowledge of capital markets and modern portfolio theory
3. Basic understanding of valuation theory

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Students broaden their horizons by enlarging their knowledge in the commodities and alternative investment product space
2. Students are familiar with the most important commodity markets, their instruments, as well as with selected other alternative investments
3. Students are able to evaluate alternative investment opportunities within the framework of asset allocation and against the background of risk-return characteristics

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students are able to do the following: - Explain the major alternative investments against the background of asset allocation - Explain the mechanics, pricing, risk management of major alternative investments - Explain the performance characteristics of alternative investments - Explain the diversification benefits of alternative investments	**Professional Competence :** Students are able to do the following: - Evaluate the major alternative investments with regard to their risk-return profile - Evaluate strategic motivations and tactical opportunities of alternative investments
Methodological Knowledge: Students are able to do the following: - Argue in a constructive and objective way - Apply and transfer their methodological tool-box for analyzing traditional investments to the alternative investment space	**Methodological Competence:** Students are able to do the following: - Critically reflect on work and thought processes and develop possible courses of action - Learn and work independently, recognize gaps in their knowledge and fill these gaps independently

Course Contents	Topic	Pre-Reading
Session Nr. 1 Roger Rissi (2 lessons) Philippe Oster / Nicolas Bürkler (2 lessons)	Introduction to Commodities: Markets, Participants & Instruments Introduction to Commodity Trading Game	None
Session Nr. 2 Roger Rissi (4 lessons)	Individual Dynamics: backwardation, contango, commodity risk premium, commodities' momenta, volatility to returns spillovers & tail events Cross-Asset Linkages: common risk factors in commodities, volatility spillovers; Reaction of Commodities to News	Chevallier / Ielpo Chapter 1 Chevallier / Ielpo Chapter 2 & 3
Session Nr. 3 Roger Rissi (4 lessons)	Economic Regimes and Commodity Markets as an Asset Class: commodities over the business cycle; Cross- Commodity Linkages: cointegration analyses	Chevallier / Ielpo Chapter 4 & 5
Session Nr. 4 Roger Rissi (4 lessons)	Cointegration with Traditional Asset Markets; Cointegration with Industrial Production and Inflation	Chevallier / Ielpo Chapter 6 & 7
Session Nr. 5 Roger Rissi (4 lessons)	Energy and Commodity Derivates, Commodity Price Models	"Options, Futures and Other Derivatives", 8th edition, John C. Hull, Chapter 33
Session Nr. 6 Philippe Oster / Nicolas Bürkler (4 lessons)	Commodity Trading Game (NO compulsory attendance!)	None

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Review of basic methods and concepts & case studies
Self-Study	Review of lecture slides and other teaching material; mandatory reading

Language of Instruction	☐ German	☒ English	☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Commodity trading game (pass/fail)
	Written exam (60 minutes), closed book

Literature	**Mandatory:** - „The Economics of Commodity Markets" by Julien Chevallier & Florian Ielpo, ISBN: 978-1-119-96791-0 - Chapter 33 from John C. Hull, "Options, Futures and other Derivatives", 8th edition. - lecture slides & additional hand-outs for session 1 & 5

	Complementary:
	- "A Trader's First Book on Commodities: An Introduction to The World's Fastest Growing Market" by C. Garner
	- "Commodity Derivatives: Markets and Applications", by N. C. Schofield
	- "Hot Commodities: How Anyone Can Invest Profitably in the World's Best Market", J. Rogers
	- "Risk Management in Commodity Markets: From Shipping to Agricuturals and Energy", H. Geman
	- „Kunst als Assetklasse" by M.Jäger and R.Ambühl
	- „Commodity Investing: Maximizing Returns through Fundamental Analysis" by A. Dunsby, J. Eckstein, J. Gaspar and S. Mulholland

Course 6.5   Structured Products

Course Topic / Description	This course provides students with an overview of the functions and characteristics of the main categories of structured products. It enables them to classify and critically evaluate new issues based on issuers term sheets The focus is on the replication, mathematical pricing, calculation, and interpretation of key risk figures for the main categories of structured products. In addition, the course explains how actual market expectations can be transformed into an investment strategy by using a structured product based on its specific characteristics.	
Course Code	6.5	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Norbert Hilber, PhD	hino@zhaw.ch
Prerequisite Courses	None	
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9	
Prerequisite Reading	John C. Hull, options, futures, and other derivatives, 7th ed. 2009 (or more recent)	

Prerequisite Competencies
– Knowledge of forms of interest, in particular constant interest rates
– Knowledge of the four basic strategies, with "plain vanilla" options
– Knowledge of the terminology used in the context of derivatives
– Statistics: basic terminology, probabilities, probability distribution
– Sound knowledge of calculator functions, excellent knowledge of EXCEL

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. *The students understand the components and the construction of the main categories of structured products*
2. *They are able to check market prices of structured products based on fair value, which they have calculated themselves, to determine the relevant key risk figures, and to analyze a given market situation and determine the best investment strategy using structured products.*

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :**
Students know the following:	The students are able to do the following:
- The Black Scholes and the binominal model to evaluate options, and they understand the strengths and weaknesses of these models - The classification of the structured products and the market volumes they achieve (scoach)	- Calculate the prices of plain vanilla and barrier options - Use the basic components [options, base values, fixed income instruments] to generate combinations (graphically and in tables)

- The key representatives of the main categories of structured products, and they understand their functions and their key characteristics - The key interest rate and credit default models, and the understand how they are applied in the pricing of structured interest rate products - The Greek letters used for selected structured products	- Calculate the fair value of mini futures, bonus certificates, capital protected products, reverse convertibles, and of selected structured fixed income/credit products and compare them with the market price - Use key risk figures to quantify and evaluate how the prices of selected structured products are affected when important market parameters change - Calculate examples of profit and loss probabilities as well as the expected yield to maturity of a structured product - Evaluate investment strategies for structured products

Methodological Knowledge: Students know/understand the following: - The key methods of analytical and numeric option price calculation - The methodology of replicating structured products - Selected methods of the risk measurement of structured products	**Methodological Competence:** Students are able to do the following: - Use the methods they have learned to analyze structured products, carry out evaluations, and assess their risks

Course Content	
Block 1 (4 Lessons) N. Hilber	**Basics, Option Strategies** - Structured products: Overview, benefits and drawbacks, Swiss Derivative Map - Black-Scholes option pricing - Principle weaknesses of Black-Scholes and alternative models - Yield and exchange rate distribution - Option Strategies and combinations, arbitrage (graphically / in a table)
Block 2 (4 Lessons) N. Hilber	**Barrier Options, Bonus Certificates, Barrier Reverse Convertibles** - Barrier reverse convertibles: Case Replication; pricing on one underlying Risk indicators Certificate on more than one underlying
Block 3 (4 Lessons) N. Hilber	**Barrier Options, Bonus Certificates, Barrier Reverse Convertibles** - Barrier Reverse Convertibles: Case, functionality Replication; pricing on one underlying Risk indicators Multi barrier reverse convertibles
Block 4 (4 Lessons) N. Hilber	**Capital Protection Products** - Capital protection products w/o cap: Characteristics, synthetic replication Market pricing and initial pricing of issuer Practical example - Interest rate sensitivity of capital protection products (Rho) - Capital protection products using cap - Profit and loss probability ; expectation value of yield - Capital protection with Asian option components
Block 5 (4 Lessons) R. Rissi	**Interest Rate Models and Derivatives** - Interest rate models - Basic functionality of common interest rate derivatives

	- Pricing common interest rate derivatives with Black's Formula - Case
Block 6 (4 Lessons) R. Rissi	**Interest Rate Models and Derivatives** - "Short rate" models: Overview - "Short rate" models: Example Casicek-Modell, CIR-Model - Pricing common interest rate derivatives by using "short-rate" models - Case

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, and small research projects

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Written exam (60 minutes; closed book)

Literature	**Mandatory Reading:**
	- **N. Hilber/P. Lüthi,** Handout MSc B&F „Strukturierte Produkte"
	  (will be issued as a hard copy in class)
	
	Additional Reading:
	- **Hull, John C**., options, futures, and other derivatives,
	  7th ed., prentice hall 2009

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MSc Banking and Finance

Module 7   Corporate Finance

Module Topic / Aims	The module Corporate Finance aims to consolidate specific aspects of financing. This includes the financing of start-ups and new business ideas (venture capital) and financial succession planning. In addition, the module covers corporate finance aspects of mergers and acquisitions and gives in-depth knowledge on funding risk management aspects of internationally active companies. In addition to the compulsory course, "Advanced Corporate Finance" (Course 7.1), students are able to choose two courses from this module.			
Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Others			
Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		
Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization			
ECTS Credits	6			
Courses	*Code*	*Course Title*		*ECTS Credits*
	7.1	Advanced Corporate Finance		2
	7.2	Family Business Finance		2
	7.3	Venture Capital and Risk Financing		2
	7.4	Mergers & Acquisitions		2
	7.5	Funding and Financial Risk Management for International Corporations		2
Module Owner	*Last Name, First Name*		*E-Mail/Phone*	
	Prof. Andreas Dietrich, PhD		andreas.dietrich@hslu.ch	
Prerequisite Competencies	Students have a Bachelor's degree in in Business Administration with a specialization in Banking and Finance. They already have a fundamental knowledge of the topics of the various courses, in particular: - Knowledge in the field of company evaluation methodology - Econometric knowledge at a first-year MSc program level to enable them to read scientific articles			

Prerequisite Modules	-
Follow-Up Modules	-
Comments	The performance assessments to be completed for this module may not be repeated.

Course 7.1   Advanced Corporate Finance

Course Topic / Description	The course "Advanced Corporate Finance: Theory and Practice" uses the tools learnt in earlier courses to study a range of problems in corporate finance. In particular, the following topics will be addressed: 1. Review of Basic Corporate Finance Topics 2. Advanced Capital Budgeting 3. Capital Structure: Theory and Evidence 4. Dividend Policy: Theory and Empirical Evidence 5. Efficient Capital Markets: Theory and Evidence 6. Performance Measurement and Incentive Design (Note that the order of the topics may change.)
Course Code	

Course Coordinators	*Last Name, First Name*	*E-mail/Phone*
	Prof. Roger Rissim, PhD	roger.rissi@hslu.ch
	Prof. Gabrielle Wanzenried, PhD	gabrielle.wanzenried@hslu.ch

Prerequisite Courses	none
Follow-Up Courses	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	-

Prerequisite Competencies
The students have acquired solid knowledge in basic corporate finance and econometrics during their Bachelor's studies.

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. The students have advanced knowledge of corporate finance topics and are able to apply it to real world problems. 2. The students are able to critically assess different methods and studies in different contexts.

Learning Goals	
Knowledge / Discipline(s)	***Complex Competencies or Sub-Competencies***
Specialist Knowledge: The students have completely understood the concepts they have been taught and are able to apply them to concrete corporate finance problems.	**Professional Competence :** The students are able to apply the concepts they have learnt to complex problems of corporate finance.
Methodological Knowledge: The students are able to - apply the concepts they have been taught to concrete corporate finance problems - critically assess the methods and concepts	**Methodological Competence:** The students are able to - apply the concepts they have been taught to complex corporate finance questions - carry out studies such as those presented in journal articles

Instructor	No. of lessons	Topic	Literature
1. Gabrielle Wanzenried	4	Review of basic corporate finance topics (i) Valuation (ii) CAPM and APT (iii) Cost of capital (iv) Further selected topics	- Copeland, Weston, Shastri (CWA) Chapters 6 and 14 - selected journal articles
2. Roger Rissi	4	Advanced Capital Budgeting (i) Real options (ii) Game theory (iii) Capital restrictions	- CWA Chapter 9 - selected journal articles
3. Gabrielle Wanzenried	4	Capital Structure: Theory and Evidence	- CWA Chapter 15 - selected journal articles
4. Roger Rissi	4	Dividend Policy: Theory and Empirical Evidence	- CWA Chapter 16 - selected journal articles
5. Roger Rissi	4	Efficient Capital Markets: Theory and Evidence	- CWA Chapter 11 - selected journal articles
6. Gabrielle Wanzenried	4	Performance Measurement and Incentive Design	- CWA Chapter 13 - selected journal articles

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, discussion of tasks, etc.
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, preparation of short presentation, etc.

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Written exam (CLOSED book)

Literature	**Mandatory Reading:** - Copeland, Weston, Shastri. Financial Theory and Corporate Policy, 4th edition, Pearson Addison Wesley, 2005. - Journal articles (details to be provided during the course)

Course 7.2   Family Business Finance

Course Topic / Description	The course "Family Business Finance" is concerned with the efficient and effective management of the finances of family-owned companies in order to achieve the objectives of the owners. The course highlights the specific aspects of financing privately owned and family businesses in comparison to large/public corporations. These include access to financing instruments, behavioral aspects of family owned businesses, and the valuation of privately owned companies. Further, the most important topics of succession planning (succession/exit routes, the role of private equity investors, succession process) will be discussed.
Course Code	

Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Prof. Mehdi Mostowfi, PhD	mosw@zhaw.ch

Prerequisite Subjects and Courses (recommended)	Basic knowledge in • corporate finance and capital markets theory • corporate valuation • mathematics and statistics

Learning Goals

Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: The students have completely understood the concepts they have been taught and are able to apply them to concrete FBF problems.	**Professional Competence :** The students are able to apply the concepts they have learnt to complex problems of FBF.
Methodological Knowledge: Students are able to • argue in a constructive and factual way. • apply and transfer their methodological corporate finance tool-box to the funding and risk management of FBF. • critically assess methods and concepts.	**Methodological Competence:** Students are able to • critically reflect work and thought processes and develop possible courses of action. • learn and work independently, recognize gaps in their knowledge and fill these gaps independently. • carry out studies such as those presented in journal articles.

Course Content	
Block 1 Mehdi Mostowfi	**Introduction to Family Business Finance** • What distinguishes FBF from "mainstream" corporate finance • Shortcomings of traditional capital structure theory in the context of family business finance
Block 2 Mehdi Mostowfi	**Financing instruments for family businesses** • Private debt instruments • Public debt instruments • Private equity • Public equity (IPO) • Mezzanine finance
Block 3 Mehdi Mostowfi	**Behavioral aspects of FBF** • Capital structure decisions of family firms • Performance, valuation, and capital structure
Block 4 Mehdi Mostowfi	**Valuation of privately owned companies I (Introduction)** • DCF method • Multiples method (comparable companies analysis) • Leveraged-buyout analysis

Block 5 Manuel Bauer Mehdi Mostowfi	**Valuation of privately owned companies II (Case Study)**
Block 6 Manuel Bauer Mehdi Mostowfi	**Succession process** • Succession planning • Exit routes • The role of private equity investors

Teaching and Learning Methods	
Subject-based and problem-based, with a focus on case studies and specific examples	
Activities	*Objectives*
Directed Study	Review of basic methods, concepts, case studies, and examples
Private Study	Review of lecture slides and other teaching material; mandatory reading

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0	40	30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	

Literature	**Mandatory Reading:** • Graham & Leary: A Review of Empirical Capital Structure Research and Directions for the Future, Annual Review of Financial Economics, Vol. 3 (2011) 309-345 • Script **Additional Reading:** • Ampenberger, Schmid, Achneitner & Kaserer: Capital structure decisions in family firms: empirical evidence from a bank-based economy, Rev Manag Sci Vol. 7 (2013) 247–275 • Ampenberger, Bennedsen & Zhou: The Capital Structure of Family Firms, Essays on Family Firms (2012) 14-58 • Gama & Galvao: Performance, valuation and capital structure: survey of family firms, Corporate Governance Vol. 12 No. 2 (2012) 199-214 • Schmid: Control considerations, creditor monitoring, and the capital structure of family firms, Journal of Banking & Finance, Vol. 37 (2013) 257–272 • Sigg, Brunner & Hoffmann: Unternehmensnachfolge: Beratung, Steuerung, Lösungskonzept. Zurich: Orell Füssli, (2013)

Course 7.3   **Venture Capital and Risk Financing**

Course Topic / Description	Students get to know sophisticated options for the analysis of acquiring risk capital for start-ups and for the growth financing of innovative SMEs, and they evaluate specific cases in terms of their feasibility. At the same time, they learn how the knowledge they acquire relates to the business world: They critically analyze and discuss financial resources for venture capital in an economically challenging environment and from different perspectives; this includes the identification of sponsorship options in Switzerland in terms of corporate development. Finally, another aim of this course is for students to understand the scope and complexity of venture capital, both at the economic and the practical level.
Course Code	
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Maurice Pedergnana, PhD maurice.pedergnana@hslu.ch
Prerequisite Courses	none
Follow-Up Courses	Students are encouraged to attend various SECA events on the topic (for details, visit www.seca.ch)
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	Students should subscribe to and regularly read the SECA eNewsletter

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Prerequisite Competencies
- Knowledge in the field of company evaluation methodology
- Econometric knowledge at a first-year MSc program level to enable them to read scientific articles

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Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. The students know what the options are for acquiring venture capital for start-ups
2. They are familiar with the main financing phases and the challenges associated with each phase
3. They understand the global trends of the venture capital industry

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Learning Goals

Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: The students - know the key challenges of self-financing a venture with/without venture capital - know the different financing phases and the specific problems in each phase on the way from an invention to an innovation that has market relevance and creates employment opportunities and market relevance - are familiar with the specific problems of (venture capital) financing for different phases and different industries	**Professional Competence :** The students - are able to list global trends of the venture capital business and evaluate them critically - are able to recognize sponsorship options and opportunities in Switzerland (and can discuss them in detail) - are able to critically evaluate specific aspects of corporate venturing
Methodological Knowledge: The students - are able to evaluate venture-capital-related measures (by companies, states, or institutional/private investors) and how they are communicated	**Methodological Competence:** The students - are able to support a start-up company in developing a business plan - are able to evaluate start-up companies

Course Content

Block 1: (8 lessons) Maurice Pedergnana Thomas Heimann	Venture capital as part of the asset class private equity; global developments in the venture capital market (VC funds, fund-of-fund business, globalization of innovation strategies, etc.)
Block 2: (8 lessons) Maurice Pedergnana Thomas Heimann	Venture capital from the perspective of the private equity sector / financing of entrepreneurial ventures in Europe / the significance of start-ups in terms of job creation and job destruction in an economy / the evolution of venture capital in Europe between 2010 and 2020
Block 3: (8 lessons) Maurice Pedergnana Thomas Heimann	Venture capital from an entrepreneurial perspective (incl. corporate venture capital – entrepreneurship & intrapreneurship: venture capital as a bridge between idea and innovation; venture-backed leadership) / venture capital in Switzerland – requirements for technical progress and foundation of Swiss economic growth

Mode of Instruction

☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, discussion of tasks, as well as participation in events held by SECA Swiss Private Equity & Corporate Finance Association, the leading venture capital association in Switzerland
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, and the preparation of a written report

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	Written exam (closed book)

Literature	**Mandatory Reading:** (on Ilias, not printed out; find a selection below): - Bain & Co.: Global Private Equity Report 2013. - Cambridge Associates: Venture Capital Index, Q4/2013, Boston 2014. - EY: Turning the corner. Global VC insights and trends 2013. - EVCA Venture Capital White Paper: Closing gaps and moving up a gear: The next stage of venture capital's evolution in Europe, March 2010. - Gründen 3.0: Leitfaden für Start-ups (Realisierungspartner SECA), Zurich 2012. - Frontier Economics: Exploring the Impact of private equity on economic growth in Europe. A report prepared for the EVCA, May 2013. - Kauffman Foundation Research Series Firm Formation and Economic Growth: The Importance of Startups in Job Creation and Job Destruction, July 2010. - Montana Capital Partners: Meta-Study of Performance in Private Equity. Baar, February 2012. - NVCA: Yearbook 2013, New York 2013. - NVCA: Venture Impact, The Economic Importance of Venture Capital-Backed Companies to the U.S. Economy, New York 2011. - NVCA / Deloitte: Study Results from the 2012 Global VC Study, New York 2012. **Additional Reading:**

	- Bundesrat: Risikokapital in der Schweiz, Bern, June 2012. - CTI: Swiss Venture Guide 2013 – From the Idea to a Successful Company, Berne 2013. - André, Lukas: Bewertung & Selektion von Hightech-Start-ups durch VC-Gesellschaften und Business Angel, Zug 2009. - Engelhardt, Jens / Gantenbein, Pascal: Venture Capital in Switzerland, An Empirical Analysis of the Market for Early-Stage Investments and their Economic Contribution, Zug 2010. - Gericke, Dieter (ed.): Private Equity, Verträge und Rechtsfragen bei Venture Capital Investments (auf Grundlage der SECA Musterverträge), Zürich 2011. - Groh, Alexander / Liechtenstein, Heinrich / Lieser, Karsten: The Global Venture Capital and Private Equity Country Attractiveness Index, 2013 annual, IESE Business School 2013. - Pedergnana, Maurice / Banik, Christoph (Hrsg.): Venture Capital Manifest 2010, Zug 2010. - World Economic Forum: Global Entrepreneurship and the Successful Growth Strategies of Early-Stage Companies, Geneva/New York 2011. **Students must have:** - Business plan (please download/order yourself) **Useful links:** http://www.seca.ch http://startupticker.ch http://www.nvca.org/ http://www.evca.eu/knowledgecenter/default.aspx?id=544 http://www.vicoconference.polimi.it/ (most recent scientific literature) http://www.go4venture.com/ http://www.altassets.com/ https://www.pwcmoneytree.com/MTPublic/ns/index.jsp http://vcpeindex.iese.us/ http://www.venture.ch (Venture 2014: offer and various documents, incl. financial planning tool)

Course 7.4   **Mergers & Acquisitions**

Course Topic / Description	M&A transactions are an everyday occurrence in the business world. Many of these transactions destroy values, and so it is important to know the basic elements of a successful company acquisition. This module provides a detailed introduction and discusses the acquisition of company from the perspective of the acquiring party.
Course Code	
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Christian Wunderlin, PhD christian.wunderlin@hslu.ch
Prerequisite Courses	None
Follow-Up Courses	None
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Prerequisite Reading	

Prerequisite Competencies
- The students have in-depth knowledge of the topic of company evaluation (esp. DCF)
- They have mastered the skill of balancing acc. to the Swiss Code of Obligations (link to IFRS to be covered in class)
- Unlike BSc students, MSc students receive an introduction and an overview of the current economic situation after which they are taken through an actual acquisition step by step (due diligence, evaluation, financing, consolidation, post-merger integration, follow-up consolidation, and impairment test)

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. The students know the various types of M&A transactions, including their benefits and drawbacks, and can estimate whether the objectives of a transaction can be met.
2. They know the different steps of a transaction as well as which priorities must be set at each step and for each type of transaction.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :**
The students	The students
- become familiar with the different types of M&A transactions (horizontal, vertical, etc.) - use what they have learnt in the context of current economic events - distinguish between the different types of due diligence and their priorities - apply the DCF method they have learnt earlier and know the sources for interest rates and multiples - control the process of an acquisition from a financial perspective and in terms of its effects on their own company's balance sheet - recognize the essential clauses of an M&A purchase agreement and how they are interrelated	- are able to estimate the risks and the opportunities of an M&A transaction depending on the type of transaction - can assess current transactions - are able to adopt specific points to be examined into a due diligence - evaluate potential objects for acquisition and evaluate the price in terms of the market situation - calculate the effect of an acquisition on their own company's balance sheet, income statement, and cash-flow statement - apply the results of the due diligence and the evaluation into a purchase agreement

Methodological Knowledge:	Methodological Competence:
The students	The students
- know how to recognize different types of transactions - understand the procedure from the balance statement of an object to the signed agreement to the follow-up consolidation	- are able to analyze current M&A transactions by themselves to determine what type of M&A transactions has been chosen - are able to calculate the major consequences of an acquisition based on a balance sheet / income statement of the object

Course Content

Block 1 Christian Wunderlin	- Introduction to M&A transactions - Acquisitions in a life cycle and key market data - Types of acquisitions - The process of an acquisition
Block 2 Christian Wunderlin	- Using what has been learnt in a working group project - Discussing current M&A transactions and answering specific questions on each transaction - Presentation (will be graded)
Block 3 Christian Wunderlin	- Financial due diligence (incl. guest lecture) - Tax due diligence (incl. guest lecture) - Legal due diligence (incl. guest lecture) - Other due diligence areas (management, environment, technology, etc.)
Block 4 Christian Wunderlin	- Case study: „EDV Handels AG acquires EDV Software AG" - From the balance sheet to the income statement to the financial forecast to the evaluation of the acquisition balance statement - Initial consolidation taking into account specific financing aspects - Effect of an M&A transaction on the acquisition balancing statement - The special case of the purchase price allocation
Block 5 Christian Wunderlin	- Follow-up consolidation - Impairment test - Essential element of the purchase agreement - Distinction between asset deal and share deal
Block 6 Christian Wunderlin	- Post-merger Integration - Conclusion and summary

Mode of Instruction

☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Traditional forms of teaching/learning, such as lectures, tutorials, pair/group work, discussion of tasks, etc.
Self-Study	Study of literature, preparation and follow-up of classes, small research projects, preparation of short presentation, etc.

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	2	24	18.0		30.0	12.0	**60**
Proportional			30.0%		50%	20.0%	**100%**

Performance Assessments	- Presentation in Block 2 (weighting: 30%) - Written exam (weighting: 70%)

Literature	**Mandatory Reading:** - Scripts and other documents issued in class **Additional Reading:** - Other documents uploaded to ILIAS - Rudolf Volkart (2008) Corporate Finance, Zurich: Versus Verlag

Course 7.5   Funding and Financial Risk Management for International Corporations

Course Topic / Description	Explore the interdependence between the globalization process and large multinational companies. Analyze and assess the funding possibilities of large multinational corporations. Get familiar with the various markets and their products, especially FX and FI, as well as the strategies that support the funding of large multinational corporations. Review the financial risks emanating from the funding of large multinational corporations and study how they can be analyzed, managed, and hedged. Evaluate investment analysis and working capital management in an international context. Understand the importance of the institutional, tax, and regulatory framework. The course allocates a significant amount of time to case studies and practical exercises. Students are expected to review the theory on their own. The language of instruction is English.	
Course Code		
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Andreas Schlegel, PhD	andreas.schlegel@hslu.ch
Prerequisite Courses		
Follow-Up Courses		
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9	
Prerequisite Subjects and Courses (recommended)	Subjects: 1. Basic knowledge of corporate finance, capital markets theory, modern portfolio theory, and macroeconomics 2. Basic product knowledge, including vanilla derivatives 3. Basic knowledge of mathematics and statistics Courses: 4. Module 1, Course 1.1 5. Module 3, "Risk Management; 6. Module 7, "Corporate Finance", "Advanced Corporate Finance"	

Competencies to Be Developed / Main Goals (approx. 2 to 3)

1. Students understand the process of globalization with all its advantages and disadvantages, know why large international corporations may want to fund internationally, and appreciate the importance of international portfolio investors.
2. Students master the concepts and financial products that underpin the funding of large international corporations and know how to navigate the various markets and products for funds. They understand if, when, how, and at what price international corporations may fund on domestic and international capital markets.
3. Students know the advantages and disadvantages, benefits and costs, as well as the risks of the various funding strategies and products available to large international corporations.
4. Students are able to evaluate the funding possibilities available to a particular international corporation and can recommend specific funding as well as risk management and hedging strategies.
5. Students appreciate the challenges accompanying investment projects and working capital management in an international context.
6. Students can judge the implications of the institutional, regulatory, and tax framework for the funding and financial risk management of international corporations.

Learning Goals	
Knowledge / Discipline(s)	**Complex Competencies or Sub-Competencies**
Specialist Knowledge: Students are able to - explain the various funding possibilities and strategies available to international corporations and analyze their advantages and disadvantages - explain how the major funding strategies work and explain the multiple factors that determine the funding costs of international corporations - explain the characteristics and dynamics of the various markets for funds (equity, debt, loans, foreign trade) - explain the challenges accompanying investment projects and working capital management in an international context - explain the risk management benefits of funding and hedging products	**Professional Competence :** Students are able to - evaluate the pros and cons of specific funding strategies - connect the dots between national politics, macroeconomics, the institutional and regulatory framework, financial markets, international portfolio investors, and the funding and risk management of international corporations - assess the factors driving the funding of international corporations and the motivation of the various market players (including international portfolio investors and governments)
Methodological Knowledge: Students are able to - argue in a constructive and factual way - apply and transfer their methodological corporate finance tool-box to the funding and risk management of international corporations	**Methodological Competence:** Students are able to - critically reflect work and thought processes and develop possible courses of action - Share their knowledge and insights with others in a constructive and convincing manner - learn and work independently, recognize gaps in their knowledge and fill these gaps independently

Course Content	
Block 1	**Multinational Corporations, International Corporate Finance, Macro Economics, and Globalization** Global Financial Market Place Capital Markets and Macroeconomics Theory of Comparative Advantage International Monetary System and Currency Regimes International Corporations International Corporate Finance International Parity Conditions

Block 2	**Financing the Global Firm**
	Financial Globalization and Strategy
	International Portfolio Investors
	The Global Cost and Availability of Capital
	International Equity Markets
	International Debt Markets
Block 3	**Foreign Exchange Theory and Markets, Financial Risk Management**
	Foreign Exchange Market and Products
	Transaction and Translation Exposure
	Operating Exposure
	Motivation for Hedging
	Foreign Currency Derivatives and Swaps
Block 4	**International Trade Finance, Multinational Tax Management**
	Financing International Trade and Minimizing Performance and Credit Risk
	Tax Principles
	Transfer Pricing
	Tax-Haven Subsidiaries and Offshore Financial Centers
Block 5	**(International) Syndicated Loans**
	Syndicated Loans
	Leveraged Buyout Financing
	LMA Loan Documentation
	Case Study: International Syndicated Loan
Block 6	**Foreign Investment Decisions, Working Capital Management**
	Foreign Direct Investments
	Country and Political Risk
	Multinational Capital Budgeting
	International Dividend Remittances
	Net Working Capital Management
	Financing Working Capital
	International Cash Management

Teaching and Learning Methods	
Subject-based and problem-based, focus on case studies and specific examples	
Activities	*Objectives*
Directed Study	Review of basic methods, concepts, case studies and examples
Private Study	Review theory and academic literature; mandatory reading; do-at-home assignments such as preparing case studies and solving problems

Language of Instruction	☐ German ☒ English ☐ [Language]

Performance Assessments	Written exam

Literature	A detailed course program and a reading list will be distributed at the beginning of the course

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2016.HS

Module Name: Leadership and Human Resource Management	
Module Code	w.MA.XX.MUL-M8a-PiE.16HS
Module Description	1. After completing this module, students understand: What makes a good leader / What differentiates leaders from managers and why companies need both / Why leadership starts with "lead yourself" and what this takes / What they can do to become good leaders (if they want) 2. Students think about: What they want to commit themselves to and what it takes to get there / Why anyone should be led by them ("by you") 3. The module focuses on: Fundamental leadership attitudes, behaviors, and practices (Day 1) / Practical applications in the financial industry (discussion, Day 2) / Deep dig into a specific application in groups (Day 3)
Program and Specialization	Banking and Finance
Legal Framework	Academic Regulations MSc in Banking and Finance dated 29.09.2011, Appendix to the Academic Regulations for the degree program in Banking and Finance, first adopted on 28.08.2012
Module Category	**Module Type:** Compulsory
ECTS	3
Organizational Unit	W Abt. Banking, Finance, Insurance Ltg.
Module Coordinator	Knecht Heinz (knhe)
Deputy Module Coordinator	Stadelmann Anton (stdn)
Prerequisite Knowledge	Students have a Bachelor's degree in Business Administration, most of them with a specialization in Banking & Finance. They are not familiar with the special leadership challenges inherent to financial services providers.
Contribution to Program Learning Goals (Affected by Module)	§ Subject Competence § Methodology Competence § Social Competence § Self Competence
Contribution to Program Learning Objectives	Subject Competence § Knowing and Understanding Content of Theoretical and Practical Relevance § Apply, Analyze, and Synthesize Content of Theoretical and Practical Relevance § Evaluate Content of Theoretical and Practical Relevance Methodology Competence § Problem-Solving & Critical Thinking § Scientific Methodology § Work Methods, Techniques, and Procedures § Information Literacy § Creativity & Innovation Social Competence § Written Communication § Oral Communication § Teamwork & Conflict Management § Intercultural Insight & Ability to Change Perspective Self Competence § Self-Management & Self-Reflection § Ethical & Social Responsibility § Learning & Change
Module Learning Objectives	Students... § recognize the link between strategy, change, and leadership challenges § know the leadership principles according to Kouzes/Posner and Weber/Weber and the authentic leadership principles according to Goffee/Jones § can apply their newly acquired specialized knowledge to analyze personalities (incl. their own personality) and team/company situations § become able to optimize team constellations § acquire the methodological means to question and further develop their own value system and leadership capabilities § get to know the opportunities and limitations of the principles to which they are introduced by studying concrete cases § develop a realistic idea of leadership skills and leadership attitudes/behaviors worth promoting § develop a clear idea of a leadership environment in which they can grow and excel

Links to other modules	The content of this module is linked to the following modules: w.MA.XX.LSE-M8b-PiE.16HS
	w.MA.XX.MVF-M2-PiE.16HS

Methods of Instruction	§ Lecture § Interactive Instruction § Application Tasks § Case Studies § Exercises § Project Work § Literature Review	**Social Settings Used:** § Individual Work § Pair Work § Group Work

Digital Resources	§ Reader § Teaching Materials

Type of Instruction	**Classroom Instruction**	**Guided Self-Study**	**Autonomous Self-Study**
Lecture	20 h	-	
Excercise	-	44 h	
Project Work	-	-	
Seminar	-	-	
Total	**20 h**	**44 h**	**26 h**

Performance Assessment

End-of-module exam	**Form**	**Length (min.)**	**Weighting**
Written exam	Closed book	60	66,66%
Permitted Resources*	No calculator		

*Acc. to the Guidelines on the Use of Examination Aids/Resources ("Merkblatt Hilfsmittel SML Intranet Prüfungen/Zeugnisse")

Others	**Assessment**	**Length (min.)**	**Weighting**
Group project	Grade	-	33,34%

Classroom Attendance Requirement	-
Language of Instruction/Examination	English
Compulsory Reading	§ Kouzes, J. & Posner, B. (2012). The Leadership Challenge. 5th edition. San Francisco. § Jones, G. & Goffee, R. (2013). Why should anyone be led by you? What it takes to be an authentic leader. Boston.
Recommended Reading	Pearce, T. (2013). Leading Out Loud. 3rd edition. Wiley. ISBN 9780470907696.
Comments	-

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Module 8b   Leadership and Ethics

Module Topic / Aims	The students: - get aware how important leadership-principles are and how they are derived - do analyse and discuss the interpendence between the culture of an organization and its performance - train skills in order to increase their personal leadership-effectiveness / -efficiency			
Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Andere			
Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		
Module Level	☐ Foundation ☐ Intermediate ☐ Advanced ☒ Specialization			
ECTS Credits	3			
Courses	*Code*	*Course Title*		*ECTS Credits*
	8b	Leadership and Ethics		3
Module Owner	*Last Name, First Name*	*E-Mail/Phone*		
	Prof. Heinz Knecht, PhD	heinz.knecht@zhaw.ch		
Prerequisite Competencies	The students do have a bachelor degree with a major in Banking & Finance. The basics of strategic management are familiar to them. They have participated in module 8a and course 2.1.			

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Realistic self-assessment of my own leadership-skills   2. Development and challenge of my own set of values   3. Checking out if my leadership profile matches well with the leadership requirements in the financial industry   4. Significant improvement of my own leadership-effectiveness and -efficiency.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: The students know… - the connex of leadership principles / organizational culture / personal effectiveness - the characteristics of a holistic leadership approach	**Professional Competence :** - learn to analyse the performance of an organization and of a leader.
Methodological Knowledge: The students… - what is beyond performance - the 7 habits of highly effective people	**Methodological Competence:** The students develop… - are able to transfer the approaches and tools of Keller / Price and Covey into their own professional domain

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Ordinary lectures, dialogues and discussions, tandem learning and workshops
Self-Study	Readings, elaboration of a working paper

Language of Instruction		☐ German	☒ English	☐ [Language]	

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	3	24	18.0		44.0	28.0	**90**
Proportional			20.0%		49%	31.0%	**100%**

Performance Assessments	Written exam (90 minutes; closed book)

Literature	**Mandatory Reading:** - Keller S. / Price C.: Beyond performance, New Jersey 2011, ISBN 978-1-118-02462-1 - St. Covey: The 7 habits of highly effective people, London, ISBN 0-684-85839-8 **Additional Reading:** - Heidbrink M. / Jenewein W.: High-Performance-Organisation, Stuttgart 2011, ISBN 978-3-7910-3072-2

Prerequisite Modules	8a
Follow-Up Modules	none
Comments	

Module 9 **Scientific Research**

Module Topic / Aims	After completing this module, students will be able to adequately evaluate and apply methods of scientific research. The aim of the Master's program is a considerable increase in competence with regard to application-oriented research. This will enable graduates to interpret scientific findings, make use of them in the context of examining practical issues, and solve problems using scientific methods. They will be able to employ systematic thinking and decision-making and proceed with analytical rigor to overcome practical challenges. This module provides the theoretical and methodological foundations to enhance students' scientific. In particular, students will learn to do the following: • Explain basic principles of scientific theory and evaluate positions taken by authors of scientific literature as to their validity in terms of established scientific standards • Research and evaluate scientific publications on a practically relevant topic and use suitable data and methods to draw conclusions with regard to the validity of the findings. At the same time, students acquire a comprehensive foundation in empirical methods and standards • Employ appropriate methodology to plan and practically implement the study of application-oriented research topics and use suitable tools to help them • Work independently to acquire the knowledge to apply specific new methods and tools, whenever required
Module Code	
Degree Program	Master of Science in Banking and Finance
Type of Degree Program	☐ Bachelor ☒ Master ☐ MAS ☐ Others

Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		

Module Level	☒ Foundation ☐ Intermediate ☐ Advanced ☐ Specialization
ECTS Credits	9

Courses	*Code*	*Course Title*		*ECTS Credits*
	9.1	Scientific Theory		3/9
	9.2	Research Methods I		3/9
	9.3	Research Methods II		3/9

Module Owner	*Last Name, First Name*	*E-Mail/Phone*
	Oliver Bachmann, PhD	oliver.bachmann@zhaw.ch

Prerequisite Competencies	Students have acquired extensive know-how in mathematics and statistics in the course of completing their Bachelor's degree program (see information on Course 9.2) as well as knowledge of and experience in conducting research involving scientific literature. Students are able to write an academic paper.

Prerequisite Modules	None
Follow-Up Modules	Module 10 and subsequently Modules 11 and 12; also Modules 3, 4, 5, 6, and 7
Comments	Cross-connections also to Modules 1 and 2

Course 9.1   Scientific Theory

Course Topic / Description	Students receive an introduction of the principles of scientific research, a comprehensive overview of survey techniques, as well as a brief introduction of empirical research and simulation. The course also includes a practically oriented introduction to the application of Excel-VBA and Bloomberg.
Course Code	9.1 Scientific Theory
Course Coordinator	*Last Name, First Name* *E-mail/Phone*

	Prof. Tilman Slembeck, PhD	tilman.slembeck@zhaw.ch
	Prof. Jürg Hari, PhD	juerg.hari@zhaw.ch
	Prof. Horst Bienert, PhD	horst.bienert@zhaw.ch
	Prof. Roger Rissi, PhD	roger.rissi@hslu.ch

Prerequisite Courses	None
Follow-Up Courses	None
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
ECTS Credits	☐ 0 ☒ 2 ☐ 4 ☐ 9
Weighting	3/9
Prerequisite Reading	-

Prerequisite Competencies
See prerequisite competencies of module

Competencies to Be Developed / Main Goals
1. Students know the principles of the theory of science and the criteria and standards of scientific research. They are able to interpret practical issues of methodology and actual research questions in the context of these principles, criteria, and standards and adhere to scientific criteria in conducting their own research projects.
2. Students receive a problem-oriented introduction of how to design, carry out, and evaluate surveys. Based on this, they are able to identify and interpret different types of surveys and design, carry out, and evaluate their own surveys.
3. Students receive an introduction to empirical research and the method of the simulation which will enable them to identify different methods, consider their application, and get more in-depth knowledge on individual methods.
4. Students know the principles of VBA programming and data processing with Bloomberg and can apply their knowledge to new situations appropriately.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: The students… - know the key terminology of the theory of science and the nature, use, functions, and limitations of scientific procedures - become familiar with practical examples of surveys, experiments, and simulations - know the principles of VBA programming and data processing with Bloomberg	**Professional Competence :** Students are able to… - interpret banking and finance issues from a scientific perspective - evaluate the validity of scientific studies, analysis, surveys, and findings in terms of their scientific value - recognize opportunities to apply the methods they have learnt
Methodological Knowledge: Students… - know the standards of scientific work and understand the practical conclusions regarding the choice of method, resulting from the basic considerations of scientific theory	**Methodological Competence:** Students… - are able to adhere to these standards in their own academic work and apply scientifically sound methodological considerations to specific issues, both in the critical reception of the work of others, as well as

- know areas of application, variations, methodological standards, and pitfalls of designing and carrying out surveys - know areas application and variations of empirical methods and of simulations - know the key methods of VBA programming and data processing with Bloomberg	in the conception of their own research questions - are able to identify and understand different types of studies, surveys, experiments, and simulations in terms of the methodology used - are able to use VBA programming and Bloomberg in appropriate contexts

Course Content	
	Introduction to the Theory of Science (Prof. Tilman Slembeck) – Introduction to science – Scientific questions, arguments, theories, and methods – Central ideas, themes, and uses of science **Data Collection – Focus of Surveys (Prof. Jürg Hari)** – Survey design, overview, qualitative interviews, samples, contact, response, and biases/effects – Questionnaires: questioning techniques and scales, processing of date for evaluation – Empirical surveys: different experimental designs, examples of marketing surveys / effects of advertising research **Simulation and Experimental Economic Research (Prof. Horst Bienert)** – Experimental research: classification of experimental economic research and experimental capital market research, short overview with examples, methodological principles, and introduction to literature – Simulation: classification of the simulation method, short overview with examples, methodological principles, and recommended reading **Excel-VBA Programming and Data Processing with Bloomberg (Prof. Roger Rissi)** - Excel-VBA Programming - Data processing with Bloomberg

Mode of Instruction	
☐ Discipline-specific	
☒ Problem-oriented	

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Lectures, tutorials, some pair/group work, and panel discussion
Self-Study	Reading assignments, preparation and follow-up of classes, research assignment, and exam preparation

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	3	36	27.0		48.0	15.0	**90**
Proportional			30.0%		53.3%	16.7%	**100%**

Performance Assessments	Written end-of-semester exam of 90 minutes (closed book, no additional resources	

Literature	**Mandatory Reading:**
	– Atteslander, P. et al. (2010): Methoden der empirischen Sozialforschung. 13th edition, 2010, Erich Schmidt Verlag: Berlin; ISBN: 978-3-503-12618-7
	– Okasha, Samir: *Philosophy of Science. A Very Short Introduction* – Oxford : University Press, 2002
	Additional Reading:
	- Arneth, Stefan; Bienert, Horst: Kapitalmarktforschung, experimentelle. In: Wolfgang Gerke (Hrsg.): Handwörterbuch des Bank- und Finanzwesens (HWF) 3rd edition. Stuttgart: Schäffer-Poeschel, 2001, p. 1293 et seq. (to be uploaded to Ilias)
	Other texts to be uploaded to Ilias and discussed in class

Course 9.2   Research Methods I

Course Topic / Description	**Introduction to Econometrics** Students are given an introduction to regression analysis with cross-sectional data, their methodology, applicability and limitations. Applications use SPSS software.	
Course Code	9.2	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Oliver Bachmann, PhD	oliver.bachmann@zhaw.ch
Prerequisite Courses	None	
Follow-Up Courses	None	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
Weighting	3/9	
Prerequisite Reading	Newbold, Paul / Carlson, William / Thorne, Betty: Statistics for Business and Economics, Global Edition, 8th edition, Pearson Education 2013: Chapters 1-10.	

Prerequisite Competencies
Students know and have the ability to apply Bachelor-level statistics:
1. Descriptive Statistics (graphs, key figures, and correlations)
2. Probability calculus and probability distributions (calculating probabilities, discrete and constant probability distributions, central limit theorem
3. Statistical interference statistics (point estimation, confidence intervals, hypothesis tests)

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Students are given an introduction to the classical linear regression model.
2. Students are able to choose and apply fundamental methods of analysis for themselves and are familiar with SPSS.
3. Students acquire the means to familiarize themselves with special econometric procedures and/or statistical econometric software systems.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :**
Students know the statistical econometric research methods used in banking and finance research literature and the concepts on which they are based, their analytical possibilities, and their limitations.	Students are able to understand the analysis procedures and key figures used in the literature and interpret and critically evaluate the findings generated from a methodological perspective.

Methodological Knowledge:	**Methodological Competence:**
Students know…	Students are able to…
- the foundations of statistical econometric methods in terms of research logic and their connection to available data and (suspected) interrelationships of economic content - the methodology of parameter estimation in linear (multiple) regression. They are familiar with the phenomena of inconsistencies, and can analyze data accordingly. They know the approaches of model improvement - the differences, applicability, and limitations of different fundamental and advanced methods of analysis	- define the data needed to answer a specific research question and they know the possibilities for collecting the data - test data quality and select and carry out appropriate fundamental procedures of analysis, and interpret and display the results correctly - can apply SPSS adequately - become familiar with other methods of analysis and/or software by themselves whenever necessary

Course Content	
O. Bachmann, PhD	**Introduction to Econometrics** – Simple and multiple regression (classical linear regression model, interpretation of results, model assumptions, OLS estimation, measure of determination, and dummy variables) – Model diagnostics (specification errors, multi-collinearity, heteroscedasticity, auto-correlation) – Heteroscedastic- and auto-correlation-robust standard errors, FGLS, IV estimation – Regression using pooled cross-sectional data – Linear probability model, logistic regression Remark: Students must have SPSS on their computers

Mode of Instruction

☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Lectures, tutorials, guided examples and exercises, and discussion of tasks
Self-Study	Study of literature, preparation and follow-up of classes, and practical exercises

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	3	36	27.0		48.0	15.0	**90**
Proportional			30.0%		53.3%	16.7%	**100%**

Performance Assessments	Written test in the first third of the semester (45 min., 50% of course grade); Written end-of-module exam of (45 min., 50% of course grade)

Literature	**Mandatory Reading:** Newbold, Paul; Carlson, William; Thorne, Betty (2010): Statistics for Business and Economics, Global Edition. 8th edition, Upper Saddle River, N.J.: Pearson Education 2013. Chapters to be specified during the course. **Additional Reading:** Additional texts to be issued in class and uploaded to Ilias

Course 9.3   Research Methods II

Course Topic / Description	Introduction to Time Series Analysis Students are given an introduction of the analysis of time series, their methodology, areas of application, and limitations. The software used for applications and examples is EViews.	
Course Code	9.3	
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Prof. Jürg Schwarz, PhD	juerg.schwarz@hslu.ch
Prerequisite Courses	None	
Follow-Up Courses	None	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
Weighting	3/9	
Prerequisite Reading	Knowledge of regression analysis with cross-sectional data (see 9.2) and scientific work (see 9.1)	

Prerequisite Competencies
Cf. 9.2 and module itself

Competencies to Be Developed / Main Goals (approx. 2 to 3)
1. Students receive a problem-oriented introduction to the statistic-econometric instruments of dealing with quantitative data (focus: financial market data and time series).
2. Based on this knowledge, students learn to understand studies from a methodological perspective and to critically evaluate them.
3. They can choose and apply basic methods of analysis themselves and are familiar with EViews.
4. Students also acquire the ability to work with specific econometric procedures and/or statistic-econometric software.

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students know the statistic-econometric research methods used in banking and finance literature, in particular with regard to their design, their analytical possibilities, and limitations.	**Professional Competence :** Students can understand and interpret the analytical procedures and key figures used in the relevant literature and categorize results achieved from a methodological perspective.
Methodological Knowledge: Students know… – the research-logical principles of statistic-econometric methods and their connection to available data and (assumed) economic-contextual interrelationships – the methodology of parameter estimation in time series. They are familiar with the phenomenon of inconsistencies and able to diagnose data with regard to them. They know approaches of model improvement – the differences, areas of application, and limitations of different fundamental and advanced methods of analysis	**Methodological Competence:** Students are able to - formulate the data requirement for a specific research question and know possibilities for collecting data - test data quality and choose suitable fundamental procedures to analyze data, conduct such analyses, and correctly interpret and visualize the results - use EViews effectively - acquire for themselves knowledge about further methods of analysis and/or related software, if necessary

Course Content	
Jürg Schwarz, PhD Guest: Prof. Günter Hobein, PhD	**Econometric Procedures (Focus: Time Series)** – General introduction to time series analysis – Use of EViews – Statistical view of time series – Introduction to modelling using time series (time series as a stochastic model; stationarity) – ARMA models – Trends and stationarity (unit-roots tests) – Time series with stochastic volatility (ARCH/GARCH) – Overview of further econometric problems and relevant literature (co-integration, panel regression, etc.) Remark: Students should have EViews on their calculators

Mode of Instruction	
☒ Discipline-specific ☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Lectures, tutorials, guided practice using examples and exercises; discussion of exercise tasks
Self-Study	Study of literature, lecture preparation and follow-up, practical exercises

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	3	36	27.0		48.0	15.0	**90**
Proportional			30.0%		53.3%	16.7%	**100%**

Performance Assessments	Written exam at the end of the semester (90 minutes, 100% of course grade)

Literature	**Mandatory Reading:** None **Additional Reading:** Other materials will be distributed in class or uploaded to Ilias.

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Module 10	**Practical Exercises in Research Methods**

Module Topic / Aims	1. Consolidation of active methodological knowledge (see Module 9) in the course of applying it in independent projects (includes acquisition of additional knowledge, where required)
	2. Consolidation of passive methodological knowledge through the critical study of research papers (in German and English; includes acquisition of additional knowledge, where required)
	3. Connecting methodological competence with specific applications throughout the whole research process; employing a pragmatic/differentiated approach
	4. Supplementing the curriculum of Module 9 with additional knowledge, as required (methods, techniques, working strategies, tools, documentation, and presentation)

Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master	☐ MAS		☐ Others
Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		
Module Level	☐ Foundation ☒ Intermediate	☐ Advanced		☐ Specialization
ECTS Credits	9			
Courses	*Code*	*Course Title*		*ECTS Credits*
		No formal course structure; the module consists of three assignments (50hrs each; individual projects) and a case study (approx. 120hrs; group project)		
Module Owner	*Last Name, First Name*		*E-Mail/Phone*	
	Oliver Bachmann, PhD		oliver.bachmann@zhaw.ch	
Prerequisite Competencies	Students have a Bachelor's degree in Business Administration with a specialization in Banking & Finance. In Module 9 they have acquired the means to enable them to work using empirical research methods and they have learnt to deal with statistics software at an elementary level.			
Performance Assessments	- Exam covering assignments 1-3 (1.5 hours). Weighting of exam: 1/3 of the total module grade. - Weighting of case study: 2/3 of the total module grade.			

Prerequisite Modules	Module 9: Scientific Research
Follow-Up Modules	Modules 11 and 12: Applied Research Projects and Master Thesis
Comments	-

Assignment 1   Statistical Exercises Using E-Views

Course Topic / Description	Consolidation of the methodological knowledge acquired in Module 9 through practical application
Course Code	
Course Coordinator	*Last Name, First Name* *E-mail/Phone*
	Prof. Jürg Schwarz, PhD
Prerequisite Courses	Builds on Module 9, in particular 9.3
Follow-Up Courses	Modules 11 and 12
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other
Prerequisite Reading	-

Prerequisite Competencies
1. *Competent use of E-Views*
2. *Appropriate choice and application of standard statistical procedures (time series, cross-sectional analyses, and simple panel analyses)*

Competencies to Be Developed / Main Goals (approx. 2 to 3)

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :** Students are able to correctly interpret statistical results in terms of their content.
Methodological Knowledge: Students… - refresh and consolidate their knowledge of time series and cross-sectional regressions - refresh and consolidate their knowledge of the use of statistics software - refresh and consolidate their knowledge of panel data analysis	**Methodological Competence:** Students are able to… - apply their knowledge of time series and cross-sectional regressions and use software to complete specific tasks - choose suitable methods to complete specific tasks

Course Content	
Assignment 1	Exercises on: - Time series analysis - Cross-sectional analysis - Panel regressions

Mode of Instruction
☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Instructions for assignment, interim discussion, final discussion
Self-Study	Mainly independent work to solve and submit the tasks Exchange and supervision via an online platform (Ilias)

Language of Instruction	□ German	⊠ English	□ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	1.6666667	6	4.5	0.0	25.0	20.5	**50**
Proportional			9.0%		50%	41.0%	**100%**

Learning Assessments	- Solutions for all the tasks must be produced and submitted by the students themselves
	- Exam covering Assignments 1-3: closed book (questions on the exercise tasks, if necessary adapted/varied): 1.5 hours

Literature	Literature to be made available together with the assignments

Assignment 2   Statistical Exercises Using SPSS

Course Topic / Description	Consolidation of the methodological knowledge acquired in Module 9 by means of practical application.	
Course Code		
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Armin Bänziger	
Prerequisite Courses	Builds on Module 9, in particular 9.2 and 9.3	
Follow-Up Courses	Modules 11 and 12	
Type of Degree Program	□ Bachelor's ⊠ Master's □ MAS □ Other	
Prerequisite Reading	-	

Prerequisite Competencies
1. *Competent use of SPSS*
2. *Appropriate choice and application of standard statistical procedures (factor analysis and analysis of categorical data)*

Competencies to Be Developed / Main Goals (approx. 2 to 3)

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge:	**Professional Competence :**
	Students are able to correctly interpret statistical results in terms of their content.
Methodological Knowledge:	**Methodological Competence:**
Students…	Students are able to…
- refresh and consolidate their knowledge of factor analysis	- apply their knowledge of factor analysis and the analysis of categorical data and use software to complete specific tasks
- refresh and consolidate their knowledge of the analysis of categorical data (in particular Probit/Logit regression and Chi-square test)	- choose suitable methods to complete specific tasks
- refresh and consolidate their knowledge of the use of statistics software	

Course Content	
Assignment 1	Exercises on: - Multiple regression - ANOVA - Empirical test of CAPM - Binary response models

Mode of Instruction	
☒ Discipline-specific	
☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Instructions for assignment, interim discussion, final discussion
Self-Study	Mainly independent work to solve and submit the tasks Exchange and supervision via an online platform (Ilias)

Language of Instruction	☒ German	☐ English	☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	1.6666667	6	4.5	0.0	25.0	20.5	**50**
Proportional			9.0%		50%	41.0%	**100%**

Learning Assessments	- Solutions for all the tasks must be produced and submitted by the students themselves - Exam covering Assignments 1-3: closed book (questions on the exercise tasks, if necessary adapted/varied): 1.5 hours

Literature	Literature to be made available together with the assignments

Assignment 3　　　Analysis of Research Work

Course Topic / Description	Consolidation of the methodological knowledge acquired in Module 9 by means of methodological analysis of published research	
Course Code		
Course Coordinator	*Last Name, First Name*	*E-mail/Phone*
	Armin Bänziger	
Prerequisite Courses	Builds on Module 9, in particular 9.2	
Follow-Up Courses	Modules 11 and 12	
Type of Degree Program	☐ Bachelor's ☒ Master's ☐ MAS ☐ Other	
Prerequisite Reading	-	

Prerequisite Competencies
1. *Solid understanding of standard statistical concepts and methods*
2. *Critical interpretation of the application of standard statistical concepts and methods in complex research projects*

Competencies to Be Developed / Main Goals (approx. 2 to 3)	
Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students… - study several scientific papers and understand the issues and findings they discuss	**Professional Competence :** Students are able to… understand and question research findings in terms of their content and methodological foundation
Methodological Knowledge: Students… - acquire an in-depth understanding of statistical methods in an application context	**Methodological Competence:** Students are able to… - apply their methodological know-how to understand and critically discuss the research papers they have studied - practice some of the steps of scientific research

Course Content	
Assignment 3	- Study of research papers and supplying answers to key questions regarding the methodology used

Mode of Instruction	
☒ Discipline-specific ☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Instructions for assignment, interim discussion, final discussion
Self-Study	Mainly independent work to solve and submit the tasks Exchange and supervision via an online platform (Ilias)

Language of Instruction	☒ German ☐ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	1.6666667	6	4.5	0.0	20.0	25.5	**50**
Proportional			9.0%		40%	51.0%	**100%**

Learning Assessments	- Solutions for all the tasks must be produced and submitted by the students themselves (to be allowed to take the exam, students must submit at least 75% of the tasks on time) - Exam covering Assignments 1-3: closed book (questions on the exercise tasks, if necessary adapted/varied): 1.5 hours

Literature	Literature to be made available together with the assignments

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Module 11 **Applied Research Projects**

<table>
<tr>
<td>Module Topic / Aims</td>
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1. Students participate in application-oriented research projects of the two institutes or in projects commissioned by the universities' business partners.

2. Students consolidate their professional, methodological, and social competence.

    a. They further develop the methodological know-how acquired in Modules 9 and 10.
    b. They link their methodological competence with applications in their field of study and thus improve their professional competence. The topics they work on must have a high degree of practical relevance.
    c. Collaboration with a partner enhances students' social competence.

3. Where possible, students also enhance their knowledge of project management. (They are coached by an experienced project manager/instructor.)

4. They produce a project report (deliverable) to whoever has commissioned the project, including presentation and, if possible, publication in a journal

The practically oriented research projects must comply with academic standards in terms of structure, methodology, analysis, innovative nature of content, and relevance. Mere consulting or service projects must be avoided. The research topic must be complex and suitable for investigation using scientific methods, and the task must be manageable within one semester.
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<tr>
<td>Module Code</td>
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<td>Degree Program</td>
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<td>Type of Degree Program</td>
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<td>Module Type</td>
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<td>C (Core Module)</td>
<td>R (Extension)</td>
<td>M (Elective)</td>
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<td></td>
<td colspan="2">Master in Banking and Finance</td>
<td>C</td>
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<td>Module Level</td>
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<td>ECTS Credits</td>
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<td>Courses</td>
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<td>11</td>
<td colspan="3">Applied Research Projects</td>
<td>9</td>
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<tr>
<td>Module Owner</td>
<td colspan="3">Last Name, First Name</td>
<td colspan="2">E-Mail/Phone</td>
</tr>
<tr>
<td></td>
<td colspan="3">Prof. Andreas Dietrich, PhD</td>
<td colspan="2">andreas.dietrich@hslu.ch</td>
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<tr>
<td>Prerequisite Competencies</td>
<td colspan="5">Methodological competence acquired in the course of a Bachelor's program and the first two semesters of the Master's program. This includes the principles of econometrics, the research and processing of scientific literature, and a systematic approach.</td>
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</table>

Prerequisite Modules	Modules 9 and 10: Scientific Research and Practical Exercises in Research Methods
Follow-Up Modules	Module 12: Master Thesis
Comments	-

Competencies to Be Developed / Main Goals
- Consolidated professional, methodological, and social competence
- Consolidated project management knowledge

See also "Module Topics / Aims"

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students obtain the additional information and know-how they need in order to carry out their research project, which they choose from a pool of suitable topics. They thus specialize in a particular field of study.	**Professional Competence :** Students are able to express themselves competently on the topic they have chosen and to interpret and explain the results of their project correctly.
Methodological Knowledge: Students consolidate the methodological knowledge they have acquired.	**Methodological Competence:** Students are able to proceed in a systematic manner, apply the methods they have chosen correctly, and justify why they have chosen them.

Mode of Instruction	
☒ Discipline-specific ☒ Problem-oriented	
Forms of Teaching and Learning	**Goals and Content**
Contact Lessons	Presentation of final report: students present their research findings
Self-Study	Students work independently to complete the required performance assessments under the continuous supervision of their instructors

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	9	30	22.5		30.0	217.5	**270**
Proportional			8.3%		11.1%	80.6%	**100%**

Performance Assessments	Pair project:
	- Preliminary report (1/6 of the final grade)
	- Final report (2/3 of the final grade)
	- Presentation (1/6 of the final grade)

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Module 12   Master Thesis

Module Topic / Aims	The Master's thesis is evidence of a student's ability to carry out independent investigation and present the results in a way that is scientifically sound, offering practical solutions to a complex issue in their field of study.			
Module Code				
Degree Program	Master of Science in Banking and Finance			
Type of Degree Program	☐ Bachelor ☒ Master	☐ MAS		☐ Others
Module Type	*Degree Program*	*C (Core Module)*	*R (Extension)*	*M (Elective)*
	Master in Banking and Finance	C		
Module Level	☐ Foundation ☐ Intermediate	☒ Advanced		☐ Specialization
ECTS Credits	15			
Courses	*Code*	*Course Title*		*ECTS Credits*
	12	Master Thesis		15
Module Owner	*Last Name, First Name*		*E-Mail/Phone*	
	Andreas Dietrich		andreas.dietrich@hslu.ch	
Prerequisite Competencies	Methodological competence acquired in the course of a Bachelor's program and the first three semesters of the Master's program. This includes the principles of econometrics, the research and processing of scientific literature, and a systematic approach. The Master's thesis builds on the curriculum of Modules 1-7.			

Prerequisite Modules	Modules 9 – 11: Scientific Research, Practical Exercises in Research Methods, and Applied Research Projects
Follow-Up Modules	
Comments	In order for a student to be allowed to submit and defend a Master's thesis, students produce a preliminary study, which must be a "pass". Cf. regulations on Module 12

Competencies to Be Developed / Main Goals
To carry out their investigation and produce a comprehensive piece of work, students combine professional, reasoning, problem-solving, and methodological competencies.   Cf. regulations on Module 12

Learning Goals	
Knowledge / Discipline(s)	*Complex Competencies or Sub-Competencies*
Specialist Knowledge: Students choose an appropriate topic in their field and independently acquire scientifically sound knowledge to enable them to carry out their project	**Professional Competence :** Students are able to reflect on the topic they have chosen, form their own opinions, and express them competently
Methodological Knowledge: Students apply the methodological know-how they have acquired in producing an independent piece of work.	**Methodological Competence:** Students carry out complex research projects in a systematic manner and are selective in the methods they

They are proactive in acquiring additional knowledge, where required	apply in doing so.

Mode of Instruction

☒ Discipline-specific
☒ Problem-oriented

Forms of Teaching and Learning	Goals and Content
Contact Lessons	Not applicable
Self-Study	Independent work to produce the Master's thesis; coaching meetings with the supervisor

Language of Instruction	☐ German ☒ English ☐ [Language]

Semester Workload	ECTS Credits	Contact Lessons	Contact Hours	Self-Study Lessons	Self-Study Hours	Autonomous Self-Study (h)	Total
Actual	15	0	0.0	0.0	10.0	440.0	**450**
Proportional			0.0%		2.2%	97.8%	**100%**

Performance Assessments	Individual Project
	- Preliminary study (a "pass" is a prerequisite) - Academic paper (weighting: 12/15 credits) - Presentation / defense (weighting: 3/15 credits) Students can revise their Master's thesis if they receive a 3.5 grade. (For details, see regulations for Module 12). If the revised Master's thesis is accepted, the student receives a 4.0 grade for the module.