

Frankfurt School Exchange Student Information

Overview of Winter Semester 2026

MSc Modules

Master in Real Estate *

Please note that some combinations of courses might not be possible. These incompatibilities will be indicated on the selection platform.

Quarter Schedules courses:

Quarter 1: Academic period: 27 August – 17 October 2026

Exam Week: 19 October – 24 October 2026

Quarter 2: Academic period: 26 October – 12 December 2026

Exam Week: 14 December – 19 December 2026

Course	Quarter
Real Estate Thinking & Economics	2
Statistics & Econometrics	2
Foundations of Finance	2
Macro- & Monetary Economics	2
Applying Artificial Intelligence in Business	2

**This course is scheduled across Q1 and Q2*

**Real Estate Thinking & Economics
[ECO71035]**

Module Coordinator		Hennig, Kerstin			
Programme(s)		Master in Real Estate			
Term		Semester 1 Q1 and Q2			
Module Duration		1 Semester			
Compulsory/Elective Module		Compulsory Module			
Credits:		6			
Frequency		Annually			
Language		English			
Total Workload	150 h	Academic Teaching Hours:	44	Remaining Workload:	Self-study
		One academic teaching hour corresponds to 45 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		<p>- Archer, W.; Ling, D. (2017). Real Estate Principles □ A Value Approach (4th ed.), McGraw-Hill, Chapt. 1, 4, 5, 6, 7, 8, 16, 21, and 22. Cavusgil, S. T. (2022). Megatrends and international business. In Megatrends in International Business: Examining the Influence of Trends on Doing Business Internationally (pp. 11-21). Cham: Springer International Publishing.</p>			

Content	<p>In the module Real Estate Thinking & Economics, students will immerse into the real estate industry. Based on their business and finance background, students will develop a real estate mindset. Furthermore, students are invited to think outside the box. They will understand the global real estate markets and their participants, the real estate life cycle as well as the interconnection and dependencies between economics, capital markets and real estate.</p> <p>Students will be introduced to thorough analyses of real estate markets and individual properties. They will understand the economic forces, which affect real estate markets and shape our built environment and will be able to apply economic models and concepts from the fields of real estate and urban economics. This module will allow them to have an in-depth understanding of how property prices are determined, what factors affect them, and how these develop over time. The module covers the basics for becoming an ethical and responsible leader in an uncertain and rapidly changing world. Students are trained to recognize and discuss the ethical dilemmas inherent in many real estate business decisions and derive solutions.</p>
Intended Learning Outcomes	<p>Knowledge: On successful completion of this module, students will have advanced their expertise to work in their field of study in a rapidly changing world. They will have a thorough understanding of the interlink between economics, capital markets and real estate. Students will be enabled to get a deep understanding of the real estate industry.</p> <p>Skills: On successful completion of this module, students will acquire the theoretical foundations and analytical tools necessary for sound decision-making: Students will learn various methods of analysis such as market, location, environment, competition, customer and risk. Students are able to analyze trends and forces that shape cities and real estate markets and derive business opportunities in the real estate industry.</p> <p>Competency: On successful completion of this module, students will understand the fundamentals of the real estate industry and will be able to apply them in practice. Graduates are aware of ethical, social, and ecological grand challenges and can design responsible decisions. Students are able to identify, analyze and integrate ethical issues in real estate management.</p>
Forms of teaching, methods and support	Lecture, reflection paper

Type of Assessment(s) and performance	Type of examination	Duration or length	Performance points	Due date or date of exam
	Class Participation	ongoing	30	Throughout the module
	Homework assignment (reflection paper)	90 min	60	During the module
	Presentation	30 min	30	During the module

Class Participation (incl. preparation)
Students must demonstrate consistent preparation for and active engagement in class sessions. This includes regular oral contributions, completion of preparatory tasks, and constructive involvement in exercises and discussions.

The homework assignment
will enable students to demonstrate their ability to transfer and apply the skills they have acquired regarding the various aspects of the real estate industry and it's interlink with capital markets and economics.

Whereas the exam is on a given topic within the framework of the course, containing an independent and in-depth examination of a problem from the work context of the course, including and evaluating relevant literature.

Recommended Literature	<ul style="list-style-type: none"> • Cavusgil, S. T. (2022). Megatrends and international business. In <i>Megatrends in International Business: Examining the Influence of Trends on Doing Business Internationally</i> (pp. 11-21). Cham: Springer International Publishing. • Schwarz, J.O. (2006). <i>The Future of Futures Studies: A Delphi Study with a German Perspective</i>. Aachen: Shaker. • European Commission (Hg.) (2008). <i>The European Foresight Monitoring Network Collection of EFMN Briefs - Part 1</i>. Luxembourg: Office for Official Publications of the European Communities. • Bogoviz, A.V. & Ragulina, Y.V. (Ed.) (2020). <i>Industry Competitiveness: Digitalization, Management, and Integration</i>. Switzerland: Springer • Burmeister, K, Neef, A., & Beyers, B (2004). <i>Corporate Foresight</i>. Hamburg: Murmann Verlag • Naisbitt, J. (1982). <i>Megatrends. Ten New Directions Transforming Our Lives</i>. New York: Warner Books. • Skinner, W. (1986). The productivity paradox. <i>Harvard Business Review</i>, 64(4). • Rottke, N. B. & Thomas, M. (2017). <i>Immobilienwirtschaftslehre – Management</i> Rottke, N. B. & Voigtländer, M. (2017). <i>Immobilienwirtschaftslehre - Ökonomie</i> • d'Amato, M. & Coskun, Y. (2023). <i>Property Valuation and Market Cycle</i>, ISBN: 9783031094521, 3031094522, Springer International Publishing. • Baum, A. E. & Hartzell, D. (2020). <i>Real Estate Investment and Finance</i>, ISBN: 9781119526155, 1119526159, Wiley. • Jones, C. A. & Trevillion, E. (2022). <i>Real Estate Investment - Theory and Practice</i>, ISBN: 9783031009686, 3031009681, Springer International Publishing. • DiPasquale, D., & Wheaton, W. C. (1992). The Markets for Real Estate Asset and Space: A Conceptual Framework. <i>Journal of the American Real Estate and Urban Economics Association</i>, 20(2), 181-197. • O'Sullivan, A. (2007). <i>Urban Economics (ISE)</i>. McGraw-Hill Education. • Quigley, J. M. (2008). <i>Urban Economics. The New Palgrave Dictionary of Economics</i> (2nd ed.). • Rottke (2012). <i>Immobilienwirtschaftslehre: Management</i>. Immobilienmanager Verlag.
Module Structure	This module is the fundament for subsequent modules due to providing an understanding of the interlinks and dependencies of economics, capital markets and real estate as well as an understanding of the dynamics and characteristics of real estate markets and asset classes as a whole.
Usability in other Modules/Programmes	Subsequent modules.

Last Approval Date	2026/04/15
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Statistics & Econometrics [QUM71042]

Module Coordinator		Badarinza, Cristian			
Programme(s)		Master in Real Estate			
Term		Semester 1 Q1			
Module Duration		1 Semester			
Compulsory/Elective Module		Compulsory Module			
Credits:		6			
Frequency		Annually			
Language		English			
Total Workload	150 h	Academic Teaching Hours:	44	Remaining Workload:	Self-study
		One academic teaching hour corresponds to 45 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		Basic knowledge in Mathematics (differential calculus, linear algebra) and statistical methods (descriptive and inferential statistics, econometrics)			
Content		<p>Statistical Foundations:</p> <ul style="list-style-type: none"> • Probability basics: Random variables and distributions • Types and moments of statistical distributions • Behaviour of large samples (Law of Large Numbers) • Central Limit Theorem • Conditional probability and independence • Covariance and correlation <p>Introduction to Econometrics:</p> <ul style="list-style-type: none"> • Ordinary Least Squares (OLS) estimation • Statistical inference • Time-series, cross-sectional and panel data • Multivariate regression • Asset pricing • Discrete-choice modeling and duration analysis • Time-series forecasting • Volatility modeling <p>Elements of Programming:</p> <ul style="list-style-type: none"> • Applications in valuation and financial econometrics • Applications in risk measurement 			

<p>Intended Learning Outcomes</p>	<p>Knowledge: On successful completion of this module, students will have a thorough comprehension of general principles in statistics and econometrics, i.e., they can:</p> <ul style="list-style-type: none"> • Explain the fundamental building blocks of probability theory. • Design appropriate econometric models for alternative asset markets. • Critically assess forecasting techniques. <p>Skills: On successful completion of this module, students will have a proven ability to apply statistical and econometric methods to real-life business and financial situations, i.e., they can:</p> <ul style="list-style-type: none"> • Apply basic statistical tools used in the academic literature. • Demonstrate a competent level of analytical reasoning. • Adapt alternative econometric techniques to a specific business situation and data structure. • Interpret estimation results. <p>Competence: On successful completion of this module students can tackle statistical and econometric problems, i.e. they can:</p> <ul style="list-style-type: none"> • Design, implement, and critically evaluate empirical analyses of real and financial data. • Quantify and interpret alternative measures of risk and uncertainty. • Propose and implement alternative valuation and forecasting techniques. 												
<p>Forms of teaching, methods and support</p>	<p>The concepts explained in the class are illustrated with additional exercises and case studies that are part of the lecture notes. Most of the exercises are solved. In addition, some examples are illustrated with corresponding computer code in Python where appropriate.</p>												
<p>Type of Assessment(s) and performance</p>	<table border="1" data-bbox="480 1413 1378 1630"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Homework Assignment</td> <td>90 min</td> <td>30</td> <td>During the module</td> </tr> <tr> <td>Written exam</td> <td>90 min</td> <td>90</td> <td>Exam week</td> </tr> </tbody> </table> <p>Examination Requirements: Relevant for the exam is the content of the lectures. Written test, open notes open book exam, non-programmable calculator.</p> <p>Assignment Requirements: Relevant for the homework assignment is the content of the lectures until the due-date of the assignment. The individual assignment tests the general understanding of concepts and requires students to apply the methods covered in class to individual datasets using Python.</p>	Type of examination	Duration or length	Performance Points	Due date or date of exam	Homework Assignment	90 min	30	During the module	Written exam	90 min	90	Exam week
Type of examination	Duration or length	Performance Points	Due date or date of exam										
Homework Assignment	90 min	30	During the module										
Written exam	90 min	90	Exam week										

Recommended Literature	<ul style="list-style-type: none"> • J.M. Wooldridge, "Introductory Econometrics: A Modern Approach", Cengage, 7th Edition, 2020. • B.E. Hansen, "Econometrics", Princeton University Press, 2022. • J.D. Hamilton, "Time Series Analysis", Princeton University Press, 1994. • J.M. Wooldridge, "Econometric Analysis of Cross-Section and Panel Data", MIT Press, 2010.
Module Structure	<p>Since experience shows that the mathematical and statistical skills of students who specialise in economics and finance differ substantially because of different backgrounds, this module is supposed to provide a common ground for all of them as a starting platform.</p>
Usability in other Modules/Programmes	Subsequent modules
Last Approval Date	2026/04/15

Foundations of Finance [FIN50069]

Module Coordinator		Markmann, Holger			
Programme(s)		Master in Real Estate			
Term		Semester 1 Q1			
Module Duration		1 Semester			
Compulsory/Elective Module		Compulsory Module			
Credits:		6			
Frequency		Annually			
Language		English			
Total Workload	150 h	Academic Teaching Hours:	44	Remaining Workload:	Self-study
		One academic teaching hour corresponds to 45 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		None			
Content		<p>This course is intended to provide a market-oriented framework for analyzing the major types of financial decisions made by corporations. Lectures and readings will provide – amongst other topics – an introduction to present value techniques, asset valuation, the operation and efficiency of financial markets, and the financial decisions of firms. Throughout the class, case studies will be used and problems solved to enhance students' understanding of the covered topics. When applicable, connections will be drawn to the real estate industry, and such examples be used.</p> <p>Topics:</p> <ul style="list-style-type: none"> • The time value of money, arbitrage and the net present value • Interest rates, credit risk and bond valuation • Measuring risk, diversification, mean-variance analysis • CAPM and multifactor models • Market efficiency • Stock valuation • Capital structure • Payout policy 			

<p>Intended Learning Outcomes</p>	<p>Knowledge: On successful completion of this module, students will have a thorough comprehension of i) the functioning of asset markets and the fundamental tools of asset valuation, and ii) the analysis of the main capital structure and investment decisions made by corporations. They will be able to:</p> <ul style="list-style-type: none"> • Explain the nature and role of different financial markets • Describe the importance of risk and return in financial decision making • Discuss the impact of financial market frictions on the financing decisions of firms <p>Skills: On successful completion of this module, students will acquire the theoretical foundations and analytical tools necessary for financial decision making and valuation, i.e. they can:</p> <ul style="list-style-type: none"> • Apply key financial concepts to value financial securities • Implement valuation techniques for investment decisions • Evaluate the impact of financing decisions on firm value <p>Competence: On successful completion of this module, students will understand the key concepts of modern asset pricing and corporate finance theory and will be able to apply them to practice. In particular, they can:</p> <ul style="list-style-type: none"> • Apply asset pricing and corporate finance theory to solve problems that investors and firms typically face • Synthesize and critically evaluate information for sound financial decision making • Analyze and interpret data correctly to select value-enhancing projects 								
<p>Forms of teaching, methods and support</p>	<p>Lectures, case studies and problem sets</p>								
<p>Type of Assessment(s) and performance</p>	<table border="1" data-bbox="480 1417 1378 1552"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written exam</td> <td>120 min</td> <td>120</td> <td>Exam week</td> </tr> </tbody> </table>	Type of examination	Duration or length	Performance Points	Due date or date of exam	Written exam	120 min	120	Exam week
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Written exam	120 min	120	Exam week						
<p>Recommended Literature</p>	<ul style="list-style-type: none"> • Berk, J., & DeMarzo, P. (2023). <i>Corporate finance</i> (6th ed.). Pearson. • Brealey, R. A., Myers, S. C., Allen, F., & Edmans, A. (2023). <i>Principles of corporate finance ISE</i> (14th ed.). McGraw-Hill. • Ross, S., Westerfield, R., Jaffe, J., & Jordan, B. D. (2022). <i>Corporate finance ISE</i> (13th ed.). McGraw-Hill. 								
<p>Module Structure</p>	<p>11 classes including lectures, case studies and problem sets. The course is highly interactive.</p>								
<p>Usability in other Modules/Programmes</p>	<p>This course is the basis for all finance-related real estate courses and is intended to provide a market-oriented framework for analyzing the major types of financial decisions.</p>								

Last Approval Date	2026/04/17
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Macro- & Monetary Economics [ECO71036]

Module Coordinator		Badarinza, Cristian			
Programme(s)		Master in Real Estate			
Term		Semester 1 Q2			
Module Duration		1 Semester			
Compulsory/Elective Module		Compulsory Module			
Credits:		6			
Frequency		Annually			
Language		English			
Total Workload	150 h	Academic Teaching Hours:	44	Remaining Workload:	Self-study
		One academic teaching hour corresponds to 45 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		Bachelor Degree			

Content	<p>This module provides a solid foundation in macroeconomic and monetary theory, equipping students with the analytical tools to interpret and evaluate macro-financial developments across a range of applied contexts. Particular emphasis is placed on understanding business cycles, interest rate dynamics, inflation, and the role of monetary policy—core drivers that affect investment decisions, financing strategies, and capital flows in the real estate industry.</p> <ol style="list-style-type: none"> 1. Introduction to Macroeconomics <ul style="list-style-type: none"> • Measuring economic performance • Long-term drivers of productivity and economic growth • The role of savings and investment in capital accumulation • Labor market dynamics and unemployment • Introduction to international macroeconomics 2. The IS-LM Model <ul style="list-style-type: none"> • Equilibrium in goods and money markets (IS and LM curves) • Fiscal and monetary policy effects in the short run • Adjustment processes in response to economic shocks 3. The AS-AD Model <ul style="list-style-type: none"> • Derivation and interpretation of AS and AD curves • Labor market dynamics and price/wage setting • Medium-run equilibrium and policy implications 4. Money and Prices <ul style="list-style-type: none"> • Functions of money and the money-inflation relationship • Real vs. nominal interest rates • The costs and consequences of inflation 5. Introduction to Central Banking <ul style="list-style-type: none"> • Institutional framework of the ECB and Federal Reserve • Monetary policy objectives, mandates and strategy frameworks 6. Monetary Policy (in the Euro Area) <ul style="list-style-type: none"> • Practical implementation of monetary policy instruments • Money creation and supply, money markets and control of short-term interest rates • Transmission of monetary policy to the real economy 7. Transmission to the real economy 8. Topics in Real Estate Economics
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<p>Intended Learning Outcomes</p>	<p>Knowledge: On successful completion of this module, students will have a solid understanding of key macroeconomic and monetary models and frameworks. Specifically, they can:</p> <ul style="list-style-type: none"> • Explain the functioning of goods, labor, and money markets within core macroeconomic models (IS-LM, AS-AD, and monetary frameworks) • Compare and evaluate the implications of model assumptions, such as price and wage rigidities, interest rate adjustments, and the neutrality of money • Describe and assess monetary and fiscal policy approaches aimed at stabilizing output, employment, and the price level in both the short and medium run <p>Skills: On successful completion of this module, students will be able to apply theoretical tools to evaluate real-world policy decisions. In particular, they can:</p> <ul style="list-style-type: none"> • Assess the effectiveness of macroeconomic stabilization strategies in developed economies, with a focus on the Euro area • Demonstrate proficiency in using formal macroeconomic models to interpret policy outcomes and macroeconomic developments • Analyse the use and transmission of monetary policy instruments in different macroeconomic environments (e.g., demand and supply shocks, inflation episodes, or liquidity traps) <p>Competence: On successful completion of this module, students will be able to critically apply macroeconomic theory to contemporary policy issues. They will be able to:</p> <ul style="list-style-type: none"> • Evaluate the macroeconomic impact of major events such as financial crises, commodity price shocks, pandemic-induced disruptions, and shifts in monetary or fiscal stances • Interpret and assess central bank decisions in the context of theoretical frameworks and empirical constraints • Formulate well-reasoned arguments about macroeconomic policy based on model-based analysis and current institutional practices 								
<p>Forms of teaching, methods and support</p>	<p>Interactive lectures, problem sets, and case studies</p>								
<p>Type of Assessment(s) and performance</p>	<table border="1"> <thead> <tr> <th>Type of examination</th> <th>Duration or length</th> <th>Performance Points</th> <th>Due date or date of exam</th> </tr> </thead> <tbody> <tr> <td>Written exam</td> <td>120 min</td> <td>120</td> <td>Exam week</td> </tr> </tbody> </table>	Type of examination	Duration or length	Performance Points	Due date or date of exam	Written exam	120 min	120	Exam week
Type of examination	Duration or length	Performance Points	Due date or date of exam						
Written exam	120 min	120	Exam week						

Recommended Literature	<p>The core readings for the course are:</p> <ul style="list-style-type: none"> • Blanchard, O. (2024). <i>Macroeconomics</i> (9th Global Edition). Pearson. • Mishkin, F.S. (2021). <i>The Economics of Money, Banking, and Financial Markets</i> (13th Edition, Global Edition). Pearson. • Mankiw, N.G., Taylor, M., Ashwin, A. (2022). <i>Business Economics</i> (3rd Edition). Cengage. • Cecchetti, S. G., & Schoenholtz, K. L. (2024). <i>Money, Banking, and Financial Markets</i> (7th ed.). McGraw-Hill. • Mankiw, N. G. (2024). <i>Principles of Economics</i> (10th ed.). Cengage Learning.
Module Structure	<ol style="list-style-type: none"> 1. Macroeconomic Foundations 2. Core Macroeconomic Models 3. Monetary Theory and the Role of Money 4. Central Banking and Monetary Policy in Practice 5. Transfer to the Real Estate Industry
Usability in other Modules/Programmes	All subsequent courses
Last Approval Date	2026/04/15

**Applying Artificial Intelligence in Business
[MGT70586]**

Module Coordinator		Hennig, Kerstin			
Programme(s)		Master in Real Estate			
Term		Semester 1 Q2			
Module Duration		1 Semester			
Compulsory/Elective Module		Compulsory Module			
Credits:		6			
Frequency		Annually			
Language		English			
Total Workload	150 h	Academic Teaching Hours:	44	Remaining Workload:	Self-study
		One academic teaching hour corresponds to 45 minutes.			
		Self-study includes lesson preparation and follow-up activities, reading assignments, assessment preparation, take-home assignments, etc.			
Prerequisites		No technical skills are needed for the course.			
Content		<p>The course gives students an overview of how artificial intelligence (AI) as a technology affects business. Some are referring to AI as similarly transformative as electricity or the internet. The course walks students through the different business areas and gives them insights about what technologies can be used to improve business efficiency.</p> <p>The course does not teach any coding skills, it only reflects the technology through metaphors. Students shall become a bridge between business needs and technology solutions, not technology architects.</p> <p>We are going to cover the following questions:</p> <p>What is Artificial Intelligence? How does AI learn, and why does it need so much data? How does the AI market build up (vendors, platform providers, development frameworks) How does AI affect different business functions? How does AI transform the specific processes, and what use cases are there for each segment? Why AI is disruptive and how it affects business models? What is the impact of digital transformation on businesses? How to identify AI opportunities in a specific business process and how to build a business case around its implementation? What are the societal impacts of digital transformation?</p>			

<p>Intended Learning Outcomes</p>	<p>Knowledge: On completion of this module, students will know about the basic concepts of how artificial intelligence works and can be applied. Students will be able to:</p> <ul style="list-style-type: none"> • understand the key notions regarding AI (machine learning, deep learning, supervised learning, unsupervised learning, reinforcement learning) • list typical applications of different modalities of AI (image processing, voice processing, natural language processing, numerical data processing) describe the key effects of AI to specific business processes (sales, marketing, customer service, manufacturing, supply chain management) <p>Skills: On successful completion of the course students will have the ability to create materials for business decisions based on horizontal market understanding. Students will be able to:</p> <ul style="list-style-type: none"> • showcase AI vendors for all above business areas and describe the AI behind the service • discuss the make or buy dilemma and distinguish between off the shelf AI products, AI platforms and AI development frameworks • explain how AI learns, what data it needs and why feedback loop is important for it. <p>Competences: With the acquired skills and knowledge, students will achieve abilities to evaluate AI against business problems and define which technologies could be the best to address them. In the following situations students will be able to:</p> <ul style="list-style-type: none"> • evaluate a specific business processes and propose specific AI based technology implementations for efficiency improvements • discuss the disruptive potential of AI in key industries (retail, manufacturing, finance) • construct a map of AI opportunities for a specific organization and estimate business impact • elaborate and pitch business suggestions to a board about AI investments.
<p>Forms of teaching, methods and support</p>	<p>The basic teaching form are lectures with a lot of integrated case studies.</p>

Type of Assessment(s) and performance

Type of examination	Duration or length	Performance points	Due date or date of exam
Class Participation	ongoing	30	Throughout the module
Exam	60 minutes	60	Exam week
Pitch competition	3 hours	30	During the module

Class participation (incl. preparation)

Students must demonstrate consistent preparation for and active engagement in class sessions. This includes regular oral contributions, completion of preparatory tasks, and constructive involvement in exercises and discussions. There are group tasks for understanding use-cases, collecting ideas to use AI-based technologies to different functions and industries where students are able to show how creatively and reasonably they can apply the principles of solving business problems with AI in specific cases.

Written Exam

A written examination (or test or quiz) is a supervised written assignment. It can also be carried out computer-aided in presence or as an electronic remote examination. By means of a written examination, the examinee proves that he/she can solve tasks and work on problems under supervision in a limited amount of time using the usual methods in the respective subject area. Understanding the most important concepts of AI is critical to being able to apply the technology in business. We are going to spend the first 4 modules on understanding these notions, show how they are implemented in different business scenarios in modules 5-8. There will be a written exam on the key concepts.

Project Works

Through project work, students demonstrate their competence to work on topics relevant to practice in an application-oriented manner and to transfer the acquired knowledge into practice.

At the end of the course, teams are given a corporate challenge: what AI tools could be used and how they could be beneficial in a specific corporate situation. Teams have to elaborate key opportunities, rate them in complexity and business value and create a 7-minute presentation in highlighting the best potentials and AI related suggestions to the "board" of the company. The criteria used to judge performance include:

- Questions asked during the preparation phase from the board
- Understanding the complexity and addressing it with thorough solutions
- Business feasibility and technological validity of the ideas
- Quality of the final presentation

Recommended Literature	<ul style="list-style-type: none"> • Digital Engine: Stunning new AI could be conscious: https://www.youtube.com/watch?v=ixgFtjfO_7Q • Andrew Ng TED talk: How AI could empower any business: https://www.youtube.com/watch?v=reUZRYXxUs4 • Karim L. Lakhami, Marco Iansiti, Competing in the age of AI, 2020 • McKinsey Digital, McKinsey Technology Trends Outlook 2022: https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-top-trends-in-tech • Deloitte: Fueling the AI transformation: four key actions powering widespread value from AI right now https://www2.deloitte.com/content/dam/Deloitte/us/Documents/deloitte-analytics/us-ai-institute-state-of-ai-fifth-edition.pdf
Module Structure	<p>The first 4 sessions give an overview about how artificial intelligence works as a technology to be able to understand the foundations of machine learning in different data sources (numeric, visual, audio, language). In modules 5-8 the focus is on different business processes and how AI is transforming the way we automate and augment these areas. In sessions 9-10 attention is turned to the risks and difficulties of choosing and implementing these technologies and the course is finished with a pitch competition</p> <p>The more detailed breakdown of the structure is as follows:</p> <ol style="list-style-type: none"> 1. Introduction to AI - history, and relationship to other technologies and impacts on digital society 2. What is "learning" - understanding machine learning through the analogies of human thinking 3. Patterns in numbers and voice 4. Natural language processing and image recognition 5. Applications in sales and marketing 6. Applications in customer service 7. Applications in manufacturing and supply chain management 8. Applications in supporting functions (HR, legal, finance) 9. The make or buy dilemma: estimating complexity and business value 10. The organizational competencies needed to integrate AI-based technologies 11. Pitch competition.
Usability in other Modules/Programmes	Fundament for Real Estate Master Program, focus digitalization / AI in Real Estate
Last Approval Date	2026/04/15