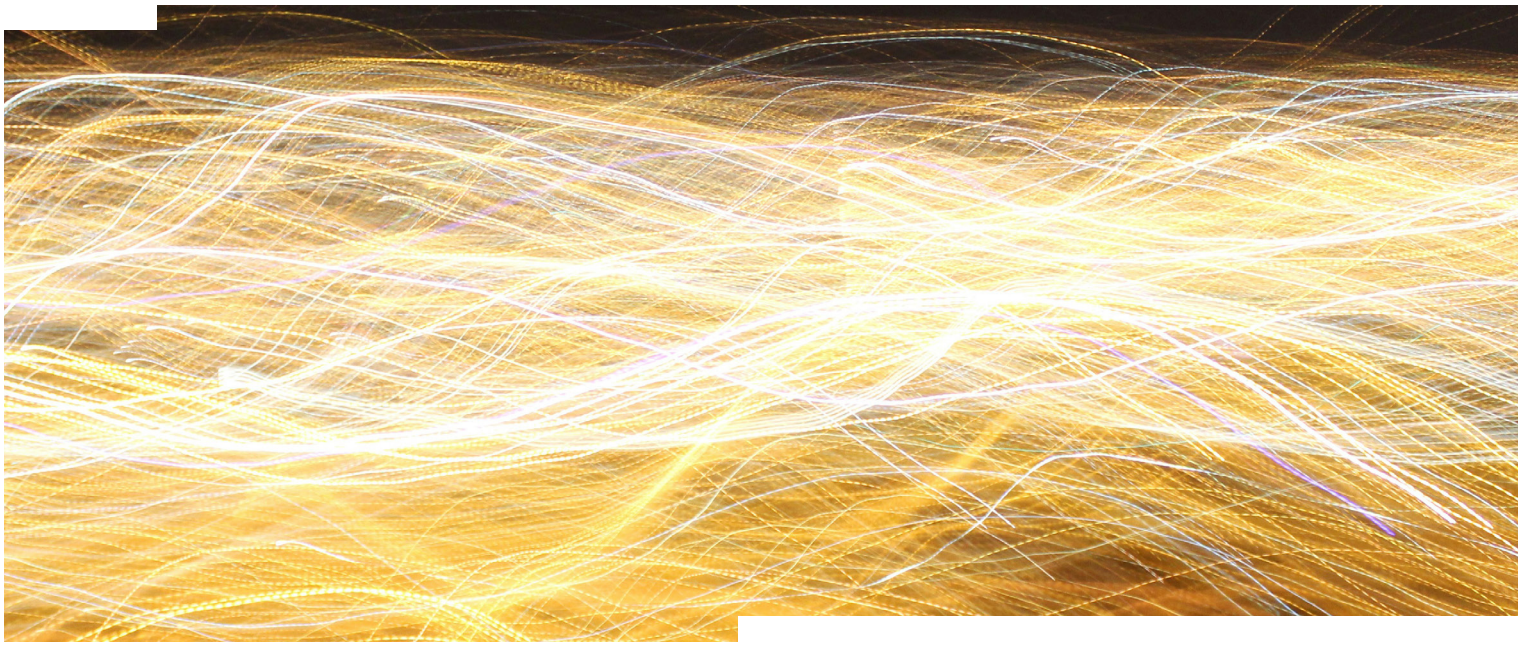
University of Zurich[UZH]

CUREM – Center for Urban & Real Estate Management

Course Practical AI for real estate 2024



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AACSB ACCREDITED

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Program Overview

Topic

This comprehensive course explores the transformative power of Artificial Intelligence (AI) in the real estate sector, emphasizing the practical application of generative AI, a cutting-edge technology reshaping our world. Participants will engage with topics such as AI-driven real estate market research, investment analysis, and risk assessment, culminating in hands-on workshops including solving a Harvard case study with AI. The curriculum is designed to bridge the gap between theoretical AI models and their practical applications, providing a comprehensive understanding of how AI technologies can revolutionize real estate practices.

The course is developed in partnership with Dr. Nikodem Szumilo, Director of the Bartlett Real Estate Institute at University College London, housed within the world's top-ranked faculty of built environment in 2023, Dr Thomas Wiegelmann, Honorary Professor at University College London and a Managing Director at Schroders Real Estate and Dr Monika Szumilo, Lecturer in Physics at University College London and an AI engineer.

Content

The course includes several components:

Introductory lectures

– Overview of AI models
– Adoption of AI in real estate

Lectures with practical applications

– Real estate market research using AI
– Using AI for analysis and strategy in real estate
– Data visualization using AI
– Forecasting using AI

Workshop "AI in Action"

– Forecasting Using AI - Supervised Group Work
– Solving a Harvard Case Study Using AI - Assisted Group Work

Learning Outcomes

Upon completing the course, participants will master the application of AI tools and techniques directly to real estate market research, investment and business strategy, and portfolio management. They will gain all the necessary knowledge, skills, and hands-on practice required to start utilizing AI in their daily professional activities. The course focuses on developing practical skills for using AI in forecasting, data visualization, and solving complex real estate case studies. This approach ensures that learners are equipped to make data-driven decisions and enhance their strategic planning capabilities. Emphasizing the practical application of generative AI, the technology currently revolutionizing the industry, our course prepares participants to tackle real-world challenges effectively and to solve relatable problems in the real estate sector.

Target Audience

This course is tailored for real estate professionals looking to understand and apply AI into their business practices, including developers, asset managers, consultants and real estate analysts. It is also ideal for individuals with an interest in the intersection of technology and real estate, aiming to leverage AI for innovation and competitive advantage in their field. No prior technical expertise or AI skills are necessary to enroll.

Lecturers

At CUREM, our courses are led by elite academics from top universities and leading industry experts. Through continuous assessments, we strive to offer an education that is of the highest quality, merging academic rigor with immediate industry relevance. This ensures our participants gain insights that are both deeply theoretical and practically applicable, setting a standard for excellence in professional development.

– Dr. Monika Szumilo, University College London
– Dr. Nikodem Szumilo, The Bartlett Real Estate Institute / University College London
– Dr. Thomas Wiegelmann FRICS, Schroder Real Estate

Methodology & Didactics

The course employs an immersive, experiential learning methodology, focusing on hands-on practice and real-world applications to ensure the material is not only understood but also applicable in professional settings. Interactive sessions, including case studies and workshops, encourage active participation, fostering a deeper understanding of AI's practical uses in real estate. This approach is designed to cater to a diverse range of learning styles, ensuring that all participants can effectively absorb and apply the course content, regardless of their prior experience with technology.

Accreditations

The accreditations from both the American label AACSB and the European label EQUIS affirm that the education programs at the Center for Urban & Real Estate Management meet the highest international standards of the best business schools.

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General Information

Course dates
Monday, July 1, 2024, 8.45 AM to 4.45 PM (online)
Friday, July 5, 2024, 8.45 AM to 4.45 PM (Bildungszentrum Sihlpost, Zurich)
Networking apéro on Friday from 4.45 PM

Duration
2 days

Registration
Until June 1, 2024
Online registration at www.curem.uzh.ch/airealestate

Degree
Certificate by the Center for Urban & Real Estate Management (CUREM), University of Zurich

Course fees
CHF 1450

Course location
Bildungszentrum Sihlpost
Sihlpostgasse 2
8004 Zurich
Arrival: Bildungszentrum Sihlpost

Number of Participants
Maximum 40 people
Registrations will be considered in the order they are received.

Language
English

Responsible entity
Faculty of Business, Economics and Informatics, University of Zurich

Course Director
M.Sc. Alice Hollenstein, Co-Managing Director, University of Zurich – CUREM

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Course Schedule

	Online: Monday, July 1, 2024	On-site in Zurich: Friday, July 5, 2024
08.45 – 10.15	Overview of AI models	Adoption of AI in real estate
Break		
10.45 – 12.15	Real estate market research using AI	Forecasting using AI
		Supervised group work
Lunch break		
13.15 – 14.45	Real estate investment analysis, strategy and forecasting using AI	Solving a Harvard case study using AI
		Assisted group work
Break		
15.15 – 16.45	Data visualisation using AI	Case study continued (risk analysis with AI)
		Assisted Group work
16.45 – 17.30		Networking apéro

Introductory lectures
Lectures with practical applications
Workshop (supervised own/group work)

Detailed Content

Introductory lectures

Overview of AI models — Duration 1 x 90 min.

Dr. Monika Szumilo

University College London

- Overview of AI, focusing on conversational AI and GPT-4
- Differences between AI and traditional software in rule derivation
- Neural networks, AI learning processes, and text understanding techniques
- Strategies for minimizing AI errors and effective prompting techniques

Adoption of AI in real estate — Duration 1 x 90 min.

Dr. Nikodem Szumilo

The Bartlett Real Estate Institute / University College London

- Philosophical and technical aspects of AI, future trends, and workforce impact
- Practical implementation of AI in business operations for efficiency and innovation
- Skills required for successful AI adoption and job role transformations

Dr. Thomas Wiegelmann FRICS

Schroder Real Estate

Lectures with practical applications

Real estate market research using AI — Duration 1 x 45 min.

Dr. Nikodem Szumilo

The Bartlett Real Estate Institute / University College London

- Introduction to prompt engineering and AI-powered searching
- Critical thinking in AI and deriving insights and recommendations
- The role of AI in enhancing document analysis and data synthesis
- Development of effective AI prompting strategies for real estate professionals

Using AI for analysis and strategy in real estate — Duration 1 x 90 min.

Dr. Nikodem Szumilo

The Bartlett Real Estate Institute / University College London

- Integrating qualitative information with AI for enhanced analysis
- Formulating strategies with AI, including setting context and defining problems
- Case studies on AI-assisted strategy generation and consultation
- Application of AI in mathematical operations and strategic real estate analysis

Data visualization using AI

Duration 1 x 90 min.

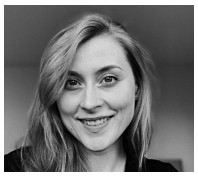
Dr. Nikodem Szumilo

The Bartlett Real Estate Institute / University College London

- Processing and analyzing real data through natural language prompts
- Creating and customizing various chart types for real estate analysis
- Generating maps and animated visualizations without technical skills
- Developing interactive visualizations for dynamic presentations

Forecasting using AI

Duration 1 x 90 min.



Dr. Monika Szumilo

University College London

- Overview of traditional forecasting methods and AI augmentation
- Building and evaluating AI forecasting models for real estate variables
- Ethical and social considerations in AI forecasting

Supervised group work

- Hands-on data preprocessing, model selection, training, testing, and validation
- Using various tools and frameworks for forecasting
- Best practices for improving forecasting accuracy and reliability

Solving a Harvard case study using AI

Duration 2 x 90 min.

Dr. Nikodem Szumilo

The Bartlett Real Estate Institute / University College London

Dr. Thomas Wiegelmann FRICS

Schroder Real Estate

- Introduction to a real estate transaction case study from Harvard
- Discussion on business problems and AI's role in strategic decision making
- Techniques for AI-assisted risk analysis, including scenario and sensitivity analysis
- Identifying key drivers and testing assumptions' robustness with AI

Assisted group work

- Participants divided into teams to solve specific case problems with AI support
- Two rounds of problem solving: one using human intelligence, another with AI assistance
- Teams communicate and compare results, discussing AI's strategic impact
- Teams apply AI risk analysis techniques to their case studies
- Creation of scenarios, variation of input parameters, and simulations
- Class discussion on results, exchange of feedback, and main lessons learned

CUREM Education Programs

Master of Advanced Studies

Course	Content	Course Dates	Registration deadline
MAS in Real Estate 18 months, part-time	Comprehensive training in real estate economics	March 2025 – September 2026	January 15, 2025

Certificate of Advanced Studies

Course	Content	Course Dates	Registration deadline
CAS in Urban Management 6 months, part-time	Training on innovative control instruments and organizational models for area and urban development	May – October 2025	February 28, 2025

Course

Course	Content	Course Dates	Registration deadline
Indirekte Immobilienanlagen und Separate Accounts	Management of listed and unlisted real estate investments domestically and abroad	June 7/8 and 13/14, 2024	May 7, 2024
Urban Psychology – angewandte Stadt- und Architekturpsychologie	Psychological knowledge for developing buildings and cities in a human-friendly manner	June 20/21 and 28/29, 2024	May 20, 2024
Sustainable Real Estate	Solutions for more sensible and sustainable property management	September 12/13/14 and 19/20/21, 2024	August 12, 2024
Digital Real Estate	New technologies and their impact on the real estate value chain	November 14/15 and 22/23, 2024	October 14, 2024
Immobilien Portfolio- und Assetmanagement	Performance-oriented management of direct real estate investments	March 14./15., 20./21. and 28./29., 2025	February 14, 2025
Grundlagen der Immobilienbewertung	Methods of real estate valuation and interpretation of appraisal reports	May 16/17 and 22/23, 2025	April 16, 2025
Placemaking	Creating added value through location-based area and project development	June 27 and 5/6, 2025	May 27, 2025

Customized Programs

In addition to regular courses, CUREM offers customized real estate economic programs for corporations and public organizations. These are specifically developed for and with the institutions. Unlike public programs, they provide the opportunity to address company-specific and confidential issues.
As one of Europe's leading business schools and a provider of real estate education, the University of Zurich boasts a vast, international network of distinguished lecturers from academia and practice. We are happy to consult with you regarding the various options.