TU Dresden | Faculty of Business and Economics

EUTOPIA Summer School:
AI in Business and Healthcare

Credits: 5 ECTS

Dates: August 24-28, 2026 (on-site component)

Location: TU Dresden (TUD)

Teaching language: English

Instructors: Aleksandre Asatiani (University of Gothenburg), Oskar Broberg (University of Gothenburg), Francesca Dal Mas (Ca' Foscari University of Venice), Stephen Gilbert, Hannes Schlieter, Susanne Strahringer, Martin Wiener, Patrick Zschech (all TUD)

Eligibility: The Summer School can be included as an (additional) elective in all study programs of the Faculty of Business and Economics at TUD. It is also open to students from the Venice School of Management at Ca' Foscari University of Venice, as well as students from the Faculty of Science and Technology and the School of Business, Economics and Law at the University of Gothenburg. The Summer School is limited to **48 participants.** Subject to availability, students from other EUTOPIA member universities (https://eutopia-university.eu) may also be admitted.

Entry requirements: Participants must have successfully completed coursework amounting to at least 45 ECTS credits in business, economics, or closely related fields of study (e.g., Business Education and Management Training, Business Information Systems, Industrial Engineering, Informatics, Management).

Content

The Summer School is structured around three main thematic areas: **(1) AI foundations, (2) AI in business,** and **(3) AI in healthcare.** It provides students with both theoretical knowledge and practical insights into the inner workings of AI applications, with a particular focus on autonomous AI solutions, including generative and agentic AI. Students will learn to critically evaluate AI applications from multiple perspectives—such as economic, ethical, regulatory, and technical—and to assess their potential to transform business operations and healthcare delivery. Building on the knowledge and insights gained, students will develop, present, and discuss innovative AI use cases in business and/or healthcare contexts.

Learning objectives

Upon successful completion of the Summer School, students will be able to:

1. Describe and analyze the architecture and core components of different types of AI solutions;

2. Understand and critically discuss key challenges and opportunities associated with different AI applications;

3. Apply relevant theoretical frameworks to real-life business and healthcare applications;

4. Identify, design, and develop innovative use cases for AI applications;

5. Evaluate AI use cases with regard to both monetary and non-monetary aspects.

Teaching formats

The Summer School is centered around an **on-site component,** structured as an intensive five-day course (Monday morning to Friday afternoon). It comprises six lectures (including group work and case discussions), two field trips (including keynote talks and panel discussions), and group-based project work (including oral presentations).

In addition, the Summer School includes **two digital components.** Prior to the on-site phase, students complete a preparatory component consisting of two online sessions and required readings (see below). Following the on-site component, there is a second digital component, during which students continue their group work virtually and prepare a project report, to be submitted within one month after the on-site phase.

Required pre-readings

- Duffourc, M. N., Verhees, F. G., & Gilbert, S. (2026). Artificial intelligence characters are dangerous without legal guardrails. *Nature Human Behaviour, 10*, 218-221. https://doi.org/10.1038/s41562-025-02375-3

- Ostermann, M., Freyer, O., Verhees, F. G., Kather, J. N., & Gilbert, S. (2025). If a therapy bot walks like a duck and talks like a duck then it is a medically regulated duck. *npj Digital Medicine, 8*, 741. https://doi.org/10.1038/s41746-025-02175-z

- Additional readings to be announced.

Examination formats

The learning objectives are assessed through the following elements:

- Active participation in lectures and discussions (objectives 1-3);

- Oral presentation of the group-based project work (objective 4);

- Project report (objective 5).

Students are required to adhere to established **academic integrity standards.** When using generative AI tools (e.g., ChatGPT), students must comply with the specific instructions provided for each assignment.

Grading

The grading scale consists of three levels: **Fail (F), Pass (P),** and **Pass with Distinction (PD).** To successfully complete the Summer School, students must achieve a passing grade for each examination element.

Teaching evaluation

Teaching will be evaluated anonymously through an online survey or paper-based questionnaires distributed during the on-site component of the Summer School. The results of the teaching evaluation will be communicated to students.

Schedule

*** Digital Component (1/2) ***	
Wednesday, July 1 15:00-16:00 @Zoom (link)	**Introduction** Coordinators provide students with an overview of the Summer School, including its content, structure, and practicalities. This is followed by a Q&A session.
August 17-21	**Pre-readings** See above.
Tuesday, August 18 15:00-16:00 @Zoom (link)	**Introduction (cont.)** All Summer School instructors give brief presentations about their lectures and explain how students should prepare for them. Assignment of students into eight groups is announced.
*** On-site Component ***	
Monday, August 24: *AI Foundations*	
9:00-10:30 @TIL 205 (*Festsaal*)	**Welcome remarks & Getting to know each other**
10:45-12:15	**Campus tour**
12:15-13:30 @Cafeteria (*Alte Mensa*)	**Lunch**
13:30-17:00 @TIL 205 (*Festsaal*)	**Lecture #1: History of AI** *Oskar Broberg* (University of Gothenburg) Content: Digitalization has transformed how information is produced, shared, and analyzed during the last fifty years. The lecture will focus on the connection between technical development and the economic transformation that has followed in its wake. Finally, we will discuss important societal challenges around transparency, accountability, and inequality. —Break (30 minutes)—

	Lecture #2: AI fundamentals *Patrick Zschech* (TUD) Content: AI brings together a diverse set of computational approaches that enable machines to perform tasks typically associated with human intelligence, such as perception, reasoning, prediction, and decision-making. This lecture introduces the major paradigms of AI and explains the core ideas behind them, as well as their respective strengths and limitations. Participants will gain a conceptual understanding of how AI capabilities have evolved and how the characteristics of different paradigms influence when and how they can be applied in practice.
From 19:30 **@SonderBar** (Würzburger Str. 40)	**Get-together**
Tuesday, August 25: *AI in Business*	
9:00-12:15 @TIL 205 (*Festsaal*)	**Lecture #3: AI and business value** *Susanne Strahringer, Martin Wiener* (TUD) Content: While new AI use cases seem endless, their actual business value is often unclear. Drawing on theoretical frameworks and practical examples, this lecture explores how AI applications create business value. The focus is on critically evaluating AI use cases across monetary and non-monetary dimensions to rigorously prioritize and justify investments in AI-based solutions. —Break (15 minutes)— **Lecture #4: Responsible AI** *Aleksandre Asatiani* (University of Gothenburg) Content: This lecture explores the principles and challenges of responsible AI. It examines ethical issues related to the design, deployment, and use of AI systems, including questions of fairness, accountability, and societal impact. Particular attention is given to challenges of explainability, interpretability, and transparency of increasingly complex and opaque AI systems. Coupled with these challenges, the lecture covers possible solutions to build guardrails, enable oversight, and cultivate responsible and accountable AI practices in organizations.
12:15-13:30 @Cafeteria (*Alte Mensa*)	**Lunch**
13:30-17:00 @TBA	**Field trip #1**
Evening	Free time
Wednesday, August 26: *AI in Healthcare*	
9:00-12:15 @TIL 205 (*Festsaal*)	**Lecture #5: AI adoption**

	Francesca Dal Mas (Ca' Foscari University of Venice)
	Content: AI is widely seen as a transformative force in healthcare, promising new business models and solutions to challenges such as rising costs, workforce shortages, and personalized care. Yet adopting AI in medicine is not merely a technical task. This lecture examines AI as a socio-technical transformation, highlighting ethical, professional, and organizational tensions around responsibility, trust, bias, and acceptance, and critically exploring how regulation, professional identity, and human factors shape the real-world adoption of AI in medical practice.
	—Break (15 minutes)—
	Lecture #6: AI regulation
	Stephen Gilbert (TUD)
	Content: Since their inception, large language models (LLMs) have been applied to health and medicine, with risks apparent early on, including harmful outputs to vulnerable users. This lecture traces timelines of LLM development, health applications, and global regulatory approaches; compares regulatory philosophies; examines challenges posed by agentic and "simulated AGI" systems; and explores emerging solutions such as sandboxes, test benches, AI chaperones, and LLM-driven just-in-time adaptive interventions.
12:15-13:30 @Cafeteria (*Alte Mensa*)	**Lunch**
13:30-17:00 @TBA	**Field trip #2**
Evening	Free time
Thursday, August 27: *Group Project (1/2)*	
9:00-12:15 @TIL 205 (*Festsaal*)	**Project introduction** Task: Identification, conceptual design/development, and multi-perspective evaluation of an innovative AI use case in a business and/or healthcare context —Break (15 minutes)— **Supervised project work**
12:15-13:30 @Cafeteria (*Alte Mensa*)	**Lunch**
13:30-17:00	**Project work (cont.)**
18:00-23:00 **@Die Hafenmeister** (Leipziger Str. 25)	**Social event**

Friday, August 28: *Group Project (2/2)*	
9:00-12:15 @TIL 205 (*Festsaal*)	**Project presentations** —Break (15 minutes)— **Project presentations (cont.)**
12:15-13:30 @Cafeteria (*Alte Mensa*)	**Lunch**
13:30-15:00 @TIL 205 (*Festsaal*)	**Award ceremony & Closing remarks**
*** Digital Component (2/2) ***	
August 31-September 30	Virtual project work
September 30, 12:00pm	<u>**Deadline**</u>**: Submission of project report**