

AI and Digital Literacy

Study programme	YUFE Joint Bachelor in Urban Sustainability Studies
Academic year	2026/2027
Curriculum component	First year
Year and semester	1st year, semester 1
Course type	Elective
ECTS credits	3
Contact hours (L+S+E)	15 + 15 + 0
Language of instruction	English

Contact

Course coordinator

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Course coordinator

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Prerequisites

No requirements.

Course objectives

The purpose of this course is to acquire fundamental knowledge related to AI technologies and develop digital literacy for their responsible application.

Learning outcomes

- Critically evaluate AI technologies and their societal and environmental impacts. Apply AI tools responsibly and ethically to real-world urban challenges, considering implications for data privacy, bias, accessibility, and social justice. Demonstrate interdisciplinary knowledge of AI applications across environmental, social, and economic systems at various
- urban scales. Develop a self-reflective and metacognitive approach to learning with AI, by considering academic norms, and assessing its
- long-term impact on personal growth, civic agency, and global citizenship in the context of sustainability.

Course content

- Fundamentals of AI and digital literacy.
- Data in AI: collection, quality, and ownership. Ethics and governance of AI.
- Tools and Services.
- Prompt Engineering.

- Learning with AI, academic integrity, digital self-awareness.
- AI in urban systems: transport, housing, energy, infrastructure.
- Midterm exam
- AI in data visualization
- Visual storytelling with AI-generated data
- AI-augmented urban design and simulation
- Interpretable AI: visualizing how AI makes decisions
- AI and urban culture – Whose Stories Get Told?
- Student project consultations / work-in-progress presentations.
- Midterm exam
- Final presentations

Teaching and learning methods

lectures and seminars and workshops.

Assessment and grading

During the semester, students will take two mid-term exams, which will include multiple-choice questions, true/false statements, problem-solving tasks, and graphical representation exercises. Active participation in class discussions is mandatory. To successfully complete the course, students must achieve at least 50% of learning outcomes across all forms of assessment and must obtain a minimum of 50% on the final exam. Regular class participation is expected throughout the course. The final exam will involve conducting research using responsible AI tools and completing a project that demonstrates the ethical and responsible application of AI to real-world urban challenges. The project should address considerations such as data privacy, bias, accessibility, and social justice. Students will be required to submit a seminar paper and present their work either in class or during the exam session.

Grading Structure All components of the final grade are mandatory. The final grade is calculated as follows: Mid-term Exam 1: 30% Mid-term Exam 2: 30% Participation in class discussions: 10% Final Exam: 30% Total: 100%

Grading Policy Students who pass the course but wish to reject their final grade must notify the course instructor within 24 hours of the grade being posted (via the Merlin platform or email), to allow for gradebook updates and further instructions.

Exam Rules and Conduct For all exams and tests, students are required to bring: - A valid photo identification document (identity card, passport, or driver's license), - A pen The use of mobile phones, digital watches, or tablets as calculators is strictly prohibited. If a student is caught using unauthorized materials, devices, or engaging in cheating (e.g. copying), the exam paper will be confiscated, and the student will be asked to leave the examination room. The cancellation of such an exam will be subject to the lecturer's discretion, based on the circumstances.

Grading scale

Grade	Percentage
5 (A)	90-100%
4 (B)	75-89.9%
3 (C)	60-74.9%
2 (D)	50-59.9%
1 (F)	0-49.9%