

Sustainable Urban Transport Infrastructure

Study programme	YUFE Joint Bachelor in Urban Sustainability Studies
Academic year	2026/2027
Curriculum component	Minor: Urban Ecology
Year and semester	2. year and 2. semester
Course type	elective
ECTS credits	3
Contact hours (L+S+E)	20+10+15
Language of instruction	English

Contact

Course coordinator

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Teaching assistant/associate

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Prerequisites

No requirements.

Course objectives

This course aims to familiarize students with the possibilities of sustainable planning of transport infrastructure, considering the materials used, drainage conditions and environmental protection.

Learning outcomes

- Explain basic elements of the traffic system in the city and storm water drainage system
- Explain properties of different materials used for sustainable infrastructure solutions
- Explain interactions between transport infrastructure, drainage system, and urban environment
- Investigate possible application and properties of selected building materials (theoretically and in laboratory)

Course content

- The impact of transport infrastructure on the urban environment.
- Stormwater drainage systems in urban areas: system elements, treatment, connection with transport infrastructure and interaction with the environment.
- Composition, properties and technology of materials for the construction of transport infrastructure.

Teaching and learning methods

lectures, seminars and workshops and practical classes.

Assessment and grading

Seminar A - transportation engineering - 20% Seminar B - hydraulic engineering and water management - 20% Laboratory report-materials - 25% Seminar C - final seminar - 35% Seminar A - preparation and presentation of the seminar - transportation engineering;; Seminar B - preparation and presentation of seminar - hydraulic engineering and water management ;; Seminar C - final seminar in written form;; Laboratory and field testing of thermal properties of different paving materials - Laboratory report.

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%