Title elective package

Offered by | Department of Built Environment
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Language | English

Primarily interesting for | All students, but most relevant for students with background in urban and transport planning, automotive and innovation science

Prerequisites | Required courses: NA
Recommended courses: NA

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Content and composition

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Course description

7W9X0, Transport Engineering
The design of transportation infrastructure is a big challenge with continuously changing demand, supply, and regulations. In this course, attention will be paid to different infrastructural elements for various transportation modes including walking, bicycles, public transport, and cars. Also new transportation modes like speed bikes and self-driving cars will be considered in relation to design principles of infrastructure. In addition, the consequences of various concepts like Sustainable safety, Smart infrastructure, Shares space, and 10-minutes city will be explored.

7W3X0, Mobility and forecast
Smart mobility requires fundamentally rethinking and taking a systematic approach for route and mode choice problems that integrates mobility demand, and transportation technology while applying modern ICT solutions. In this course you learn the values of modeling and forecasting of mobility demand for transport authorities and study the principles of modelling personal mobility and decision making for travel choices. Gained insight is necessary for the course 7GC20 Design project on smart mobility.

7GC20, Smart Mobility Design Project
The idea underlying this project-based course is to apply the knowledge and skills obtained from the “Mobility and logistics” course and others (related to design, data science, and math modeling), to design, analyse and evaluate a smart mobility solution for the Eindhoven region.