

## M.Sc. Programmes

# Sustainable Transport



## Programme description

The course is intended for the transport and logistics engineers who want to broaden their education in the area of a sustainable transport. The environmental, social and economic impacts, including the emission of pollutants and noise reduction, health protection, efficient use of energy and other natural resources, combined with an appropriate level of transport services should result in a sustainable means of transport satisfying the socio-economic needs.

To provide a competitive educational programme, as well as meeting the expectations of the international market, we offer the course in English. It is addressed to both Polish and foreign students. We provide an opportunity to broaden the attendees knowledge in the following areas: modern means of transport (alternative sources of propulsion); awareness of the negative consequences for the environment and ways to reduce environmental impacts (environmental assessment tools); methodology of environmental emission measurements; safety and environmental hazards in rail transport; the role and importance of public transport; urban rail transport; organization of transport systems taking into account sustainable aspects (optimization in transport); sustainable transport planning; traffic engineering and optimization; decision support in transport.

The Faculty of Civil and Transport Engineering offers a unique study programme aiming at educating engineers to support the needs of the sustainable transport. The graduate will be capable of solving complex transportation problems by the applying the syllabus's modern methods and tools, thereby reducing the negative impact on the natural environment and human health stemming from of the use of various means of transport.

## Course summary:

#### Semester 1

- Emissions Measurement Methodology
- Environmental Evaluation Tools
- Maintenance of Transport Means
- Optimization in Transport
- Control and Management in Transport Systems
- Modeling of Transport Processes and Systems
- Integrated Design
- Applied Mechanics
- Modeling of Physical Systems
- Financial Management in Transport
- Training of Managerial Skills
- Foreign Language

#### Semester 2

- Alternative Powertrains
- Decision Aiding in Transport
- Traffic Engineering and Optimization
- Urban Rail Transit
- Ergonomics in Transport
- Mechatronics of Means of Transport
- Systems Reliability and Safety
- Numerical Methods in Technology
- Innovative Entrepreneurship
- Elective Humanistic and Social
- Foreign Language

#### Semester 3

- Sustainable mobility
- Safety and Environmental Risks in Rail Transport
- Sustainable Transport Planning
- Public Transport
- Public Transport Infrastructure
- ICT Systems
- Small Business Management
- Diploma Seminar



# M.Sc. Programmes

# Sustainable Transport

University	Poznan University of Technology Poznan, POLAND
Degree to be obtained	Master of Science
Programme website	https://www.put.poznan.pl/en
Contact	International Relations Office Pl. M. Skłodowskiej-Curie 5 60-965 Poznan, Poland
Phone	+48 61 665 3544
Fax	+48 61 665 3956
E-mail	study@put.poznan.pl
Language of instruction	English
ECTS points	90
Duration	1.5 years (3 semesters)
Programme begins	end of February
Programme ends	end of June
Deadline for application	3 months before the course starts – end of November
Education requirements	English language – level B2 (Common European Framework), Bachelor's degree or its equivalent in engineering or applied sciences. Full list of the required documents is available at: https://www.put.poznan.pl/en
Mode of instruction	Lectures, tutorials, laboratory classes, projects, internship

