

<i>Course title:</i> <b>Traffic engineering</b>	<i>Code:</i> ErasmusFCEE-EM
<i>Field of study:</i> Civil engineering	<i>Year / semester:</i> III
<i>Specjality:</i>	<i>Course:</i> compulsory
<i>Hours / week:</i> Lectures: 1 Tutorials: 0 Laboratories: 0 Project / Seminars: 0,5	<i>Number of credits:</i> 6

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**Status of the course in the study program:**  
Core course for students of Civil Engineering

**Course description:**

Overview of traffic engineering covering influence of speed on safety and quality of traffic, capacity and freedom of flow, level of service, traffic modelling, distribution and management. The course presents also different modes of transport with their strong and weak sides and derives from that elements of transport policy.

**Teaching outcomes:**

The main aim of the course is to learn to think about traffic and its management during design, construction and exploitation of transport network.

**Prerequisites:**

Basic knowledge of mathematics and physics.

**Teaching method:**

Lectures (multimedia projector);  
Field trips and seminars – students observe certain problems on chosen locations, make measurements and discuss conclusions;  
Literature study – students receive a topic to search for on the internet or in articles given by teacher and to present conclusions.

**Assessment method:**

Written examination,  
Conclusions from field trips and literature study,  
Involvement in seminars.

**Bibliography:**

1. Gaca S., Suchorzewski W., Tracz M.: Inżynieria ruchu, WKiŁ W-wa 2009 (in polish),
2. Woch J.: Narzędzia analizy efektywności i optymalizacji sieci kolejowej, WPSI Gliwice 2001 (in polish),
3. Szczuraszek T.: Bezpieczeństwo ruchu miejskiego, WKiŁ Warszawa 2005 (in polish),
4. Kerner B.: Introduction to modern traffic flow theory and control, Springer 2009,
5. Schreckenberg M., Selten R.: Human behaviour and traffic networks, Springer 2004,
6. Leibbrand K.: Verkehrsingenieurwesen, Birkhäuser 1957.