

**BASIC INFORMATION:**

Organisational Unit	FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING	
Chair	Department of Transport Systems and Logistics	
Course/modul		
Code	2.11.06.08.003.	<b>Railway traffic safety</b>
ETCS credits	6	

**COURSE TYPE:**

Functional Area	Expert parent core
Level of Abstraction	Scientific and professional
Course Type - Obligation	Upper-middle

**COURSE REGISTRATION:**

Scientific Field	2.	Engineering and technology
Scientific Area	2.11.	Other engineering and technology
Narrow Scientific Field	2.11.06.	Traffic
Scientific subfield	2.11.06.08.	Railway traffic

**COURSE DESCRIPTION:**

Educational goals	Understanding the basic principles of safety in railway traffic, analysis parameters that affect the safety of railway traffic.
Competences/ educational outcomes:	By mastering this subject, future engineers will understand the basic principles safety in railway traffic. Familiarizing yourself with the principles of interoperability, they will be able to understand the cause-and-effect relationships of interoperability and safety of the railway system. They will be able to analyze the parameters that affect the safety of railway traffic, they are trained to use methods for risk assessment and assessment in railway traffic. Future engineers will be able to demonstrate the establishment of a safety management system for railways companies and infrastructure managers and be able to manage the system for safety management, as well as after gaining practical experience on the railway manage individual sectors or railway organizations that are responsible for railway traffic and transport safety.

Course content	Subject of study. Traffic safety methods. The concept of phenomenology traffic accidents. The mechanism of action of traffic safety factors. Traffic accidents. Dynamics and structure of traffic accidents. Consequences traffic accidents. Evaluations in the field of traffic safety. Structure and rhythm of actions in traffic. Perpetrators of traffic accidents. The concept of etiology traffic accidents. Quantifying the causes of traffic accidents. Objective factors. Technical factors. The road as a factor of traffic safety. Vehicle as a factor traffic safety. Natural factors. Social factors. Human factor traffic safety. Intelligent transport systems.
----------------	--

### COURSE METRICS:

ETCS	Teaching activities (hours)					Individual work		TOTAL Hours of work
	Contact lessons	Exercises and trainings	Seminar and stud. papers	Pedagogical workshops	Profess. practice	Individual. and group learning	Source research	
6	54		30			84	12	180

### ACCESS CONDITION

2.03.10.01.005.	Methods and analyzes in traffic safety
-----------------	--

### COURSE METHODOLOGY

Lectures, auditory exercises and consultations.
---

### TEACHING LANGUAGES

English
---------

### STUDENT WORK EVALUATION

No.	Type of Evaluation	Partial/ Final	Elective/ Mandatory	Percentage of participation
01	Participation in Lecture Interactions	pre-exam obligation	Mandatory	10 %
02	Seminary work	pre-exam obligation	Mandatory	30 %
03	Exam activities – final test	final	Mandatory	60 %

### LITERATURE

No.	Author	Publication Title	Publisher	Edition Year
1.	F.Flammini	Railway Safety, Reliability, and Security: Technologies and Systems Engineering	IGI Global	2012
2.				

