

**BASIC INFORMATION:**

Organisational Unit	FACULTY OF TRANSPORT AND TRAFFIC ENGINEERING	
Chair	Department of Philosophical, Sociological and Cultural Sciences	
Course/modul		
Code	6.01.06.011.	<b>Methodology of scientific research work</b>
ETCS credits	6	

**COURSE TYPE:**

Functional Area	Common to the field
Level of Abstraction	Theoretical and methodological
Course Type - Obligation	Advanced

**COURSE REGISTRATION:**

Scientific Field	2.	Engineering and technology
Scientific Area	2.11.	Other engineering and technology
Narrow Scientific Field	2.11.06.	Traffic

**COURSE DESCRIPTION:**

Educational goals	This course introduces students to the theory and technique of academic research. Includes topics: research and method; the most commonly used methods; research and theory: scientific facts and scientific theory; phases of the research process: choosing a topic, defining a hypothesis, data collection, analysis and arrangement of material, writing research report; editing final versions of the manuscript; composition of different written compositions; essay writing, seminar and graduation thesis; review work and original scientific work; documentary basis of the manuscript.
Competences/ educational outcomes:	Knowledge of the methodology and technique of scientific work and research will save a young expert wasting time and wasting energy, will help him make better use of his creative forces and work ability.

Course content	Finding out. Historical roots of the development of knowledge and methods. Expression and communication. Information. Data processing. Choice of topic. Subject of research and problem formulation. General objective and operational objectives of the research Hypothesis. Formulation of the thesis title. Content and composition. Bibliography. Methods and techniques. Research and organization. Methods. Analysis and synthesis - Abstraction and concretization; generalization and specialization Induction and deduction - Statistical method – Models. Usability of basic methods and techniques in law, economics and sociological. Summary of methods. New technology of scientific-research work. Internet. Multimedia.
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### 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	48		30			90	12	180

### ACCESS CONDITION

6.01.06.021.	Philosophy of life (academic skills) - for students of the Pan-European University
	Passed course in the scientific field "Philosophy" or "Sociology" or "Psychology" or "Pedagogical science" - for students of other universities

### COURSE METHODOLOGY

Lectures, seminar work 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	20 %
02	Seminary work	pre-exam obligation	Mandatory	30 %
03	Exam activities – final test	final	Mandatory	50 %

### LITERATURE

No.	Author	Publication Title	Publisher	Edition Year
1.	C.G. Tomas	Research Methodology and Scientific Writing	Springer	2021