

Faculty of Transportation Engineering and Vehicle Engineering

IMPORTANT NOTES

If for one subject you can find several different types (lecture, practice, laboratory) of courses then please choose one and only one course from each type in order to be able to perform the subject's requirements successfully. Civil Engineering courses are on the website separately. Courses chosen from the offer of Faculty of Civil Engineering will be checked and arranged individually by the departmental coordinator.

Subject code	Subject name			ECTS credit
BMEKOGT8501	Laser technologies in the vehicle industry			2
Course type	Course code	Course language	Timetable information	
Lecture	ER_EA01	English	WED:12:15-14:00;	
Principles of lasers. Properties of the laser beam, beam delivery and forming. Laser-material interactions. Construction of high power laser equipments. Laser cutting technology. Laser welding technology. Laser drilling technology. Laser surface treatments (alloying, remelting, cladding, cleaning). Adaptive control of lasers. Integration of laser into the production technologies. Rapid prototyping. Hazards and safety of lasers.				
Subject code	Subject name			ECTS credit
BMEKOJHA159	Basics of Vehicle Design and Diagnostics			4
Course type	Course code	Course language	Timetable information	
Lecture	ERASMUS_L ECT	English	THU:10:15-12:00;	
Practice	ERASMUS_P RACT	English	THU:10:15-12:00;	
Techniques of the 3D modelling. Structure, and working of a graphics software, geometric kernel systems. Curves, surfaces, modelling techniques. Solid modelling. 2D documentation, drawing generation. Modelling based on the basic shape system, modelling based on the associativity of the planning system. Concurrent engineering. Synchronous modelling. Parts assembly, interference checking. Moving simulation.				
Subject code	Subject name			ECTS credit
BMEKOKG8517	Financing Transport Infrastructure			4
Course type	Course code	Course language	Timetable information	
Lecture	ERA_L	English	THU:16:15-18:00;	
Practice	ERA_P	English	THU:18:15-19:00;	
Presentation of theoretical base of transport infrastructure financing and development of skills for practical applications. Financing principles, methods and procedures: Equity Funding, Debt Funding, Private Financing Initiative, PPP for designing, planning, constructing and operating of transport infrastructure. Presentation and application of a software as a decision making tool for preparation of feasibility studies. Risk analysis of financing transport infrastructure. International case studies. The course will consist of 3 hours lessons/week during the 14 weeks (2 hour lecture and 1 hour seminar - where students will be expected to provide brief oral presentations).				
Subject code	Subject name			ECTS credit
BMEKOKGA226	Airtransport Management I.			2
Course type	Course code	Course language	Timetable information	
Lecture	ERA_L	English	THU:12:15-14:00;	
Practice	ERA_P	English	THU:12:15-14:00;	
Market of air transport. Strategy. Marketing. Controlling. Charges. Airlines and airports.				
Subject code	Subject name			ECTS credit
BMEKOKUA201	Transportation Information Systems I.			5
Course type	Course code	Course language	Timetable information	
Laboratory	ERA_lab	English	MON:15:15-17:00;	
Lecture	ERA_L	English	MON:15:15-17:00;	
Practice	ERA_P	English	MON:15:15-17:00;	
Objective of subject: Information systems in passenger and freight transport. Phases and functions of the entire transport process. Specialities and common features of the information systems in the certain transport modes. Satellite based communication, positioning and tracking systems. Creating databases and management of data using SQL language. Keywords: information systems used widely in transportation, databases				

Subject code	Subject name			ECTS credit
BMEKOKUA301	Informatics in Logistics I.			5
Course type	Course code	Course language	Timetable information	
Laboratory	ERA-lab	English	MON:10:15-12:00;	
Lecture	ERA_L	English	MON:10:15-12:00;	
Practice	ERA_P	English	MON:10:15-12:00;	
Automatic identification (Auto_ID). Physical basics. 1D, 2D barcodes. RFID systems. Technologies: active, passive, Battery Assisted Passive. RTLS solutions. Voice Picking. Biometric Identification Systems. Telematics. InMarSat. EutelTracs. GPS. Basics of WGS84, geoid modelling. SiRF. maps. Fleet management systems. Glonass. Galileo.				
Subject code	Subject name			ECTS credit
BMEKOKUA304	Transport Logistics			5
Course type	Course code	Course language	Timetable information	
Lecture	ERA_L	English	MON:12:15-15:00;	
Practice	ERA_P	English	TUE:12:15-14:00;	
Introduce the students in course of Transport Logistics to the up to date processes of logistics information technologies in the fields of transportation, identification and navigation systems, e-business, geographic information systems (GIS), enterprise resource planning systems (ERP) and simulation technologies. Introduce the students to the standards and application of unit load handling and containerization in transportation handling systems. Introduce the students to a process of method for planning of warehousing and material handling systems inside the enterprises and between logistic centres. Calculation methods for truck stability and standard courses of truck system utilization in warehouses.				