

Faculty of Civil Engineering

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Course	ECTS	Course description	Autumn	Spring
Introduction to Lithuania	3	The course is intended for international students who wish to gain comprehensive understanding of Lithuanian society and culture. The course is aimed to familiarise the students with the cultural background of Lithuania as well as its historical development in order to help them to make their exchange period more integral by an increased understanding of Lithuanian customs, culture and contemporary issues. During the course students will learn some basic phrases in Lithuanian, will gain basic knowledge of Lithuania's societal and cultural background from thematically various perspectives. The studies of this subject are completed by an individual work performed by a student.	yes	yes
Business English	3	The course is aimed at familiarising students with the use of English in business communication. The course deals with various areas of business activities: communication in business English in various real situations, writing and filling in business documents, business communication and presentations, business meetings and trips also formation, systemizing and deepening of business terminology and grammar. The course is taught during the fifth semester of studies. The studies of this course are completed by an individual work performed by a student.	yes	yes
Information Technologies	3	The course is aimed at strengthen knowledge of information technologies, of basic PC hardware and software, to develop ability to apply computer methods to solve engineering methods, to design, create and manage databases, to use information systems and networks for data mining, processing and management. Course is taught during the first semester. The studies of this course are completed by an individual work of a student.	yes	yes
Applied Research	3	The course is aimed at familiarising the students with fundamental methodologies of applied research. Skills necessary to complete term papers, independent work, and the Final project and/or publications will be developed throughout the lectures. The subject is about the application of research methods, planning the applied research process, organization, and completion specifics. Throughout the course literature is studied, topics formulated, problems, relevance, objective, and tasks are described, data collected, analysed, and conclusion completed. The studies of this course are completed by an individual work performed by a student.	yes	yes

Project Management	6	This subject will equip the students with traditional and advanced techniques necessary to manage projects in organisation and business context. It will introduce students to the key management processes. Topics covered include construction project planning, analysis and monitoring, project delivery methods, strategic project management, project risk management, role of the project manager regarding human aspects of project management, including team skills and leadership, stakeholder analysis, project value management, project risk and uncertainty management.	yes	yes
Fundamentals of Business	6	The subject is designed for introducing students to business and entrepreneurship system, business development, globalization factors, which effect business. The subject content is based on the analysis of conventional and unconventional business organization forms, analysis of business development possibilities, ability to find out the main principles and functions of enterprise performance and use them in practice. The course is completed with a student's self-study work (project).	yes	yes
Sustainable Environment and Human Safety	3	The course is designed for the students to understand the structure of civil and labor safety system, its elements, control and the influence of human factor. During the studies of the course the students review the fundamentals of civil protection and rescue systems, ways for protection of humans, their property and means in the case of extreme situations, get introduced to the principles of employees safety and healthy work, the main ergonomic requirements, the impact of hazardous factors and the ways of their elimination or reduction.	yes	yes
Sustainable Development	3	The course is designed to understand the concept of sustainable development, sustainable development policy, and its implementation. While studying the subject, students review the principles and significance of sustainable development, national responsibility, implementation of the principles of sustainable development and obstacles. The economic, ecological / environmental, social / cultural environments are analysed, and the transport sector is singled out in the context of sustainable development. The study of the subject is completed with an exam.	yes	yes
Building Engineering Systems	6	The course analyses the heating, cooling and air conditioning, cold and hot water supply and waste water systems in buildings: the principal schemes, used equipment, its functioning. The module teaches on how to design simple heating, water supply and waste water systems. The course studies are completed with the student's independent work.	yes	yes
Engineering and Computer Graphics	6	The course presents the basics of construction drawing, detail and product design rules, and their application in blueprints; students are taught to analyse construction blueprints, apply valid standards in construction blueprints, and draft construction blueprints based on design rules; and knowledge is imparted about the main drawing, design, and editing commands and the application of the AutoCAD system in the preparation of graphic documents (blueprints). During practical tasks, spatial and logical thinking is cultivated, the ability to draft and read various blueprints is developed, and using drawing tools and means is taught. The studies of this course are completed by an individual work performed by a student.	yes	yes

Applied Mechanics	6	The course is aimed at familiarising the students with the basics of applied mechanics, main concepts of statics, axioms, and links. Throughout the activities an understanding of flat systems of intersecting forces is developed, and the equilibrium condition and equations are analysed. A reduction of a flat system of forces and force system equilibrium are analysed. Basic concepts of material strength and the stress operating in cut sections are introduced. Tension and compression rod deformations, material tension and compression trial results are analysed. The concepts of warping, stretching, cutting, and splitting deformations are made clear. Types of building constructions, connections, and supports are examined. Structure calculation schemes are analysed. The course studies are completed by an individual work of a student.	yes	yes
Building Information modelling	6	The course is aimed at familiarising the students with the possibilities of application of computer-aided design software "Revit" in preparing the construction schemes. The course establishes the skills of the design of buildings, their sections, facades, units, forms the specific knowledge on the formation of the measurement modular system. The studies of this course are completed by an individual work of a student.	yes	yes
Materials of Buildings	3,6	The course is aimed at providing knowledge on the raw-materials of building materials and their use for the production of building materials. During the course the students are familiarised with the production technologies of the main building materials and properties of the obtained materials according to the European Union (EU) technical requirements applicable to building materials. The studies of this course are completed by an individual work performed by a student.	yes	yes
Structures of Buildings I	6	The subject is aimed at familiarising the students with the classification of buildings, applicable requirements, normative construction technical documents; The subject programme analyses the structural systems of low-rise and multi-storey buildings; the partition structures are analysed in terms of thermal technique; structural solutions of walls, overlays, floor, partitions, roofs, windows and doors as well as stairs; discusses the types and constructions of wooden buildings; describes the design stage and composite project parts; teaches on the preparation of constructional part of building designs. The studies of this subject is completed by an individual work performed by a student.	yes	no
Structures of Buildings II	6	The subject is aimed at familiarising the students with the analysis the structural systems and elements of large-span buildings; constructional schemes of carcass buildings, types and elements of carcasses and their connection units; structural solutions of monolithic buildings; constructional systems of industrial buildings; structural solutions and spatial stiffness. Studies of this subject is completed by an individual work performed by student.	no	yes
Marketing and Sales Management	6	The subject is designed to introduce students to marketing components, teach to analyse situations which effect company performance, having studied marketing mix elements and having done market research, be able to write a marketing plan. The course is completed with examination.	yes	yes

Financial Accounting and Audit	3	The subject is designed to introduce students to financial accounting and audit, teaching to account company production activities and financial indicators of company performance and present them to internal and external users. The course is completed with examination.	yes	yes
Quality Management in Transport	6	The subject is designed for providing systematic and practical information about advanced management principles used in the world as well as in Lithuanian companies, highlighting the role and objectives of quality management when aiming at competitive performance in globalization process; providing theoretical knowledge and practical skills to solve quality problems via projects, quality management system implementation, planning and realising quality improvement actions. The course is completed by an individual work performed by a student.	yes	yes
Building Design Practice	6	Workshop	no	yes
Topography	6	The course is aimed at providing knowledge on the coordinate systems, geodetic measurements, used instruments, coordinate and altitude establishment methods, methods of composition of topographic photographs, educating the skills of the calculation of coordinates and altitudes of points, formation and drawing of the plans of complex situation and relief. During the first semester, the studies are completed with the individual work performed by a student, during the second semester – with an examination, and during the third semester - with the student's individually performed work.	yes	yes
Geographic Information Systems	3	The course is aimed at providing students with knowledge on the geographical information system, acquire practical skills of using the data sources of geo-information systems, create them, design and structurise with ArcGIS software. The course is delivered during the fourth semester of studies. The course studies are completed by an individual work of a student	yes	yes
Engineering and Computer Graphics	3	The course is aimed at familiarising the students with the basics of construction drawing, detail and product design rules, and their application in blueprints; students are taught to analyze construction blueprints, apply valid standards in construction blueprints, and draft construction blueprints based on design rules; and knowledge is imparted about the main drawing, design, and editing commands and the application of the AutoCAD system in the preparation of graphic documents (blueprints). During practical tasks, spatial and logical thinking is cultivated, the ability to draft and read various blueprints is developed, and using drawing tools and means is taught. The course is taught in the first and second semesters. The studies of this course are completed by an individual work performed by a student.	yes	yes

Buildings Maintenance	3	The course is aimed at familiarising the students with the maintenance of buildings. During the course, the students are familiarised with the requirements and normative documents of the maintenance of buildings, the methodologies of the evaluation of the condition of building structures, taught on the evaluation of buildings and planning of the resources, analysis of the periodicity of building repairs, calculation of the payoff of the reconstructed partition constructions. The concepts of the low-energy and zero-energy house and the importance of the generation of energy from the renewable energy sources are analysed. The course is taught during the sixth semester of studies. The course studies are completed by an individual work of a student.	no	yes
Engineering Geodesy and Practice	6	The course is aimed at providing students with the fundamental information on geodesy, at teaching on how to perform measurement and marking works in the locality by using modern geodesy devices, to control the quality of construction works and compliance with the project. The course studies are completed with an examination.	no	yes
Statistics	3	The subject is designed for introducing the principles of collecting statistical data, theory of statistical indicators, finance statistics, business enterprise statistical indicators and their analysis. The course is completed with examination.	yes	yes
Transport System	3	The course unit is aimed at analyzing the main constituent parts of the transport system, technical infrastructure of the transportation, natural and urban transport environment, traffic regulation and management, to analyze development tendencies of the transport system, interoperability of different transport modes, their coordination, transport policy, to make an overview of the Lithuanian transport system. The course unit studies are finalized by the students' independent work.	yes	yes
Freight and Passenger Transportation	6	The subject is designed for mastering the organization of cargo passenger transportation by road, railway, waterway (sea and inland) transport. Analysing cargo qualities, their classification, grouping as consignment, packaging, marking, fixing, analysing road network and designing routes. Calculating technical – exploitation indicators and using them for traffic timetables. The course is completed with examination.	yes	yes
Applied Software in Logistics	6	The subject is designed for providing theoretical and practical knowledge about customer service, storage, transportation and other information systems, familiarizing with the most popular computer programs in logistics. The course is completed with student's self-study work (project).	yes	yes
Transport Economics	6	The subject is designed for providing systematized knowledge about economics of different transport modes and its peculiarities developing logical thinking, teaching to analyse economic processes in transport sector, identify the effects of different external and internal factors on transport company performance, evaluate transport company performance results. The course is completed with a student's self-study assignment (project).	yes	yes

Transport Management and Business Organization	6	The subject is designed for introducing students to establishment peculiarities of transport companies with different transport modes, fundamentals of running them, organizing and planning performance, influence of innovations on launching new services, calculating and analysing transport company operation indicators. The course is completed with a student's self-study assignment (project).	yes	yes
Logistics	6	The subject is designed for familiarizing with logistics, its structural parts, teaching to analyse situations which influence transport company performance, teaching to apply business logistics principles when making decisions in transport operations, understand logistics chain. The course is completed with examination.	yes	yes
Combined Transportation	3	The subject is designed for examining the process of combined transport cargo freight, familiarize students with the relation among road, railway, water and air transport systems, combined transportation infrastructure and legal basis. The course is completed with student's self-study assignment.	yes	yes
Forwarding and Insurance	6	The subject is designed for analysing organizational and legal basics of forwarding company performance; learning to work out the documents necessary for cargo forwarding, familiarizing with customs procedures, key points and functions of insurance policy. The subject is completed with examination.	yes	yes
Green Logistics	3	The subject is designed for familiarizing with green logistics, its peculiarities, teaching to analyse green logistics management peculiarities and to use in transport and logistics company performance. The course is completed with student's self-study assignment.	yes	yes
EU Transport Policy	3	The course focuses on the EU transport policy aims and strategy for every means of transport; introduces the EU legal system fundamentals; analyzes collaboration of international organizations with the EU states and their influence on creating the common road network system. The course is completed with a student's individual work (assignment). Upon completion of the course, students will be able to analyze transport development tendencies considering the EU transport policy aims; will be aware of the EU transport policy provisions, outlined in the "White Book"; analyze logistics processes considering the LR national transport program, prepared according to the EU transport policy aims and strategy. The course is completed with student's self-study assignment.	yes	yes
Warehouses and Terminals	6	The course aims at familiarizing students with the purpose of warehouse and terminals, their meaning in logistics, processes taking place in warehouses and terminals. Upon completion of the course studies, students will know the purpose and classification of warehouses and terminals; will know how to prepare warehousing system and the terminal plan; will be able to organize processes taking place in warehouses and terminals. The course is completed with examination.	yes	yes