MASTER'S

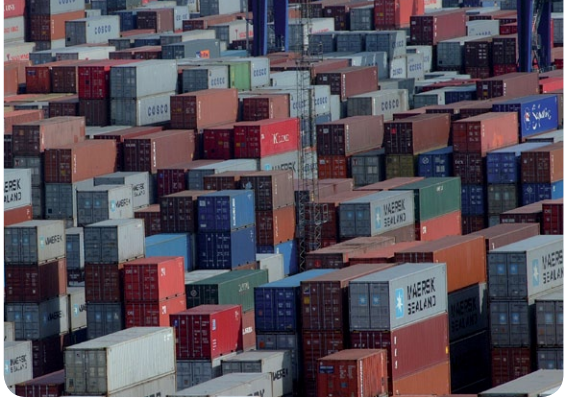
TRANSATLANTIC FULL-TIME DUAL DEGREE PROGRAM

Transportation and Logistic Systems

- Logistics fuels business
- atlantis.fd.cvut.cz

This dual master's degree is supported by the EU-US cooperation in higher education and training program ATLANTIS.

EU and US working together for success



Despite the rise of Asian economies, the European Union and the United States remain two largest trading partners in the world. Value of goods shipped amounts to more than €300 billion per year. Everywhere in the world today in order to sustain current and find new business opportunities, demand for internationally trained experts is increasing, however, up until now, there has not been any graduate study program focusing on transatlantic movement of people and goods, needles to say logistics that is connected with it.

Transatlantic dual master's degree program Transportation and Logistic Systems is jointly offered by The Czech Technical University in Prague, Czech Republic (CTU), The University of Žilina, Slovakia (UNIZA) and The University of Texas at El Paso, USA (UTEP). Students enrolled in the program spend first year of their master's curriculum in EU and the second year in US. Upon graduation, students are awarded two master's degrees and two diplomas, one from CTU and one from UTEP.

Graduates are expected to master interdisciplinary skills in the fields of modern transportation and logistics that will allow them to acquire respectable positions in companies worldwide. Moreover, due to the fact that part of the curriculum takes place in US, students should learn how to work as a member of an international team and live in a multicultural environment.

FACTS & FIGURES

- Organization: full-time dual master's degree program
- Degrees awarded: Master of Science in Engineering (M.Sc.) from both CTU and UTEP: Ing./M.Sc. at CTU and M.S. at UTEP
- Language of instruction: English
- Duration: 4 semesters (2 years)
- Workload: 120 ECTS credits (30 ECTS credits per semester)
- Contact hours: up to 28 per week
- Courses start: September (CTU, UNIZA), August (UTEP)
- Tuition fees: waived
- Scholarship: available for the US part of the curriculum
- Admission limit: 4 students per year

ADMISSION REQUIREMENTS

- Bachelor's degree in transportation engineering
- Very good grades throughout bachelor level studies (arithmetic mean up to 1,8)
- English language proficiency – TOEFL (min. scores 61 or 173 or 500)

ADMISSION PROCEDURE

- Bachelor level grades assessment
- TOEFL scores assessment
- Interview in English

APPLICATION

Information on how to apply and on admission is posted at CTU's Atlantis program website atlantis.fd.cvut.cz.

Courses offered in the study program Transportation and Logistic Systems are summarized in the table below. Course title is listed in the first column, lectures per week (lectures + labs) in the second, course evaluation in the third and, finally, awarded ECTS credits in the fourth column.

CURRICULUM STAGE 1 (1st and 2nd semesters)

The Czech Technical University in Prague in cooperation with The University of Žilina

1st semester			
Mathematical Models in Economy	1+1	evaluated assessment	2 ECTS
Transport and Environment	2+0	assessment	2 ECTS
Traffic Flow Theory	2+1	assessment, exam	3 ECTS
Information Technology in Logistics	2+2	assessment, exam	4 ECTS
Logistic Systems	3+2	assessment, exam	6 ECTS
Project Management	2+0	exam	2 ECTS
Express Courier Services	2+2	assessment, exam	5 ECTS
Foreign Language - English 1*	0+2	assessment	2 ECTS
Foreign Language - Spanish 1*	0+2	assessment	2 ECTS
Master Project 1 (Thesis 1)*	0+2	assessment	2 ECTS
Total	**28**		**30 ECTS**

* Incoming students choose following course instead:

CTU Thesis 1	0+6	assessment	6 ECTS

Additionally, incoming students can also choose level one Czech language course:

Foreign Language - Czech 1	0+2	assessment	0 ECTS

2nd semester			
Technological Aspects of Quality	2+0	assessment	2 ECTS
Investments and Financing in Transport	3+1	assessment, exam	4 ECTS
Satellite Technologies in Logistics	2+2	assessment, exam	4 ECTS
Transport Theory	2+2	assessment, exam	5 ECTS
Maritime Transport and Maritime Containers	3+1	assessment, exam	5 ECTS
Elective Course 1**	2+0	evaluated assessment	2 ECTS
Elective Course 2**	2+0	evaluated assessment	2 ECTS
Foreign Language - English 2**	0+2	assessment	2 ECTS
Foreign Language - Spanish 2**	0+2	assessment	2 ECTS
Master Project 2 (Thesis 2)**	0+2	assessment	2 ECTS
Total	**28**		**30 ECTS**

** Incoming students choose following course instead:

CTU Thesis 2	0+10	assessment	10 ECTS

Additionally, incoming students can also choose level two Czech language course:

Foreign Language - Czech 2	0+2	assessment	0 ECTS

There are over 30 elective courses available from the English-taught master's degree program Intelligent Transport Systems.

CURRICULUM STAGE 2 (3rd and 4th semesters)

The University of Texas at El Paso

3rd semester			
UTEP Elective 1	3+9	exam	12 ECTS
UTEP Elective 2	3+9	exam	12 ECTS
UTEP Thesis 1	0+4	assessment	6 ECTS
Total	**28**		**30 ECTS**

4th semester			
UTEP Elective 3	3+9	exam	12 ECTS
UTEP Elective 4	3+9	exam	12 ECTS
UTEP Thesis 2	0+4	assessment	6 ECTS
Total	**28**		**30 ECTS**

Available elective courses at UTEP (16 in total):

- Infrastructure Management
- Infrastructure Engineering
- Modern Methods of Engineering Computation
- Traffic Engineering
- Urban Transportation Planning
- Construction Management
- Infrastructure Planning
- Risk and Reliability Analyses of Engineering Systems
- Traffic Flow and Simulation Modeling
- Infrastructure Network Flow Analysis and Optimization
- Civil & Environmental Systems Engineering
- Statistical Methods for Civil Engineers
- Highway Geometric Design
- Advanced Travel and Infrastructure Demand Analysis
- Intermodal Transportation systems
- Sustainable Engineering Design

Thesis and final exam

Upon enrolment, students choose topic of their thesis and start working within corresponding project. Thesis has to cover topic with strong relevance for both EU and US. Final exam involves thesis defense and oral exam.

ECTS credits ... Credits according to the European Credit Transfer System (workload equivalent per student, course and semester).

ACQUIRED ABILITIES

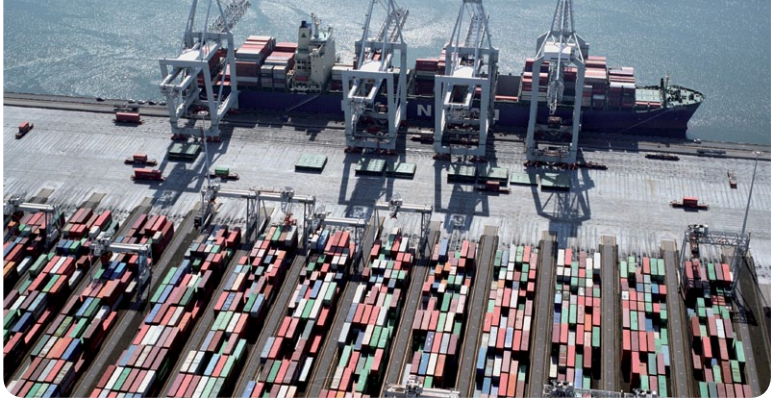
- to use knowledge of transportation sciences and engineering to solve transportation and infrastructure problems that require critical thinking due to multidisciplinary expertise such as traffic and logistics theory, optimization and management of transport processes, safety and security of transport systems and others
- to formulate and apply models to forecast interregional and international passenger and freight movements between US and EU including land, air and maritime transportation with possible intermodal transfers
- to select appropriate data collection methods and decision making tools for assessing complex trade-offs when solving transportation and infrastructure problems, including innovative methods of reducing traffic congestion, funding of transportation infrastructure and variable road pricing
- to perform transatlantic mobility analysis from different stakeholder's perspectives through understanding of international business practices, supply chain management and regulations for the transport of dangerous goods
- to use advanced information technology in finding transportation solutions and to assess their impact on the economy, environment, and society
- to apply risk and uncertainty modeling techniques to solve transportation and infrastructure problems
- to formulate and solve multi-modal/multi-national transportation alternatives to enhance the efficiency of movements of people and freight
- to apply international business principles for management of sustainable infrastructure systems
- to develop business plans in transport entrepreneurship in EU and US
- to communicate the results of an analysis to technical and non-technical international audiences
- to function effectively as a member of multidisciplinary international team when solving transportation problems

JOB & CAREER

Transatlantic dual degree program in Transportation and Logistic Systems provides solid starting point for a successful international career:

- Transportation companies in EU or US
- Government offices on both sides of the Atlantic
- Industries operating in EU and US
- International companies providing expert services
- Private or public research laboratories

Besides that, with your European and American degrees you can always continue your education and get a Ph.D. at any European or American technical university.



Transatlantic Dual Degree Program
Transportation and Logistic Systems

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THE CZECH TECHNICAL UNIVERSITY IN PRAGUE

CTU in Prague is the oldest technical university in Central Europe dating back to the 18. century. Its Faculty of Transportation Sciences is a leading transport-oriented faculty in the Czech Republic with over 1 500 students in several specialized degree programs who benefit from project-oriented curriculum, which, among others, enable team work on transport projects supervised by experienced specialists.

THE UNIVERSITY OF ŽILINA

UNIZA was established in 1953. In terms of professional profile, UNIZA is unique in Slovakia as it has a long tradition of providing education in the fields of transportation and telecommunications. During the last period of development UNIZA has become an educational institution with broad profile in many areas of science, technology, economics, management and recently even educational and natural sciences.
UNIZA has ties with numerous universities worldwide and participates in international educational and research projects.

THE UNIVERSITY OF TEXAS AT EL PASO

Since its beginnings as a small mining school in 1914, UTEP has been committed to providing access and excellence to those seeking a higher education. Today, the University offers 81 bachelor's, 81 master's and 17 doctoral degrees, with others in development.
UTEP is proud of its multicultural locale and long history of fostering diversity – these characteristics make the campus of more than 22 000 students one of the most friendly and welcoming university settings anywhere.
With over $60 million in annual research spending, UTEP is dedicated to becoming one of Texas' next national research (Tier One) universities.