

STUDY PROGRAM TRANSPORT IN CRISES SITUATIONS ON INTERNATIONAL FRAME

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Annotation: In these times there are many serious reasons to create a new study programs. University of Zilina, has many long-term experience with subjects military transport and transport in crisis or dangerous situation.

Key words: Transport in crises situation, study program, globalisation

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1. INTRODUCTION

The war between democratic countries and countries known as axis of evil can be recognized as a fight with terrorism. The Faculty of Special Engineering has started to educate crisis and security management professionals as well as fire engineering specialists. We also decided to focus on transport in crises situation. Many terrorist attacks since 11th September are aimed to transport and transport infrastructure. We have long-time skills and knowledge oriented on solving these problems. Two years ago we decided to create common study programme, which will be accredited in others counties. One example of such project was created last year among Wroclaw – Pardubice and Žilina.

2. DO EXIST OBJECTIVE NEEDS FOR THIS STUDY PROGRAMME?

During last years there were many terrorist attacks aimed to transport means. For instance attack to Madrid railway station, London subway but also natural disasters as floods, landslides, avalanches or earthquakes. Many of these events would not have bad influence on society if there would be good management of information towards organisations, citizens and also countries. Therefore many experts in the world find solving much easier of using information and communication technology which can increase security of transport. In previous years there were many disasters in the field of transport as you can see in the following figure.

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Fig. 1 Pictures showing consequences of natural disasters and terrorist attacks [source - web pages]

3. BASES OF THE STUDY PROGRAMMES

Transformation of the faculty and study branches involved changes in organisational structure and individual workplaces. For instance the Department of Technical Sciences and Informatics has been transformed from the former Department of Military Transport. It was mainly because of pedagogical-professional, scientific-research and partly personnel aspect.

The Department of Technical Sciences and Informatics is a cross-sectional department and it provides lectures for all study branches and specialisations according to requirements of individual departments. Most of the subjects taught by members of this department are those, which are compulsory for all study programmes. Some of these subjects are: Informatics, Fundamentals of Technical Sciences (Statics, Dynamics, Kinematics and Strength of Materials), Logistics, Society Protection (Safety and Protection of Health at Work), Transport Machinery and Technology, Solution of Crises Situations in Infrastructure as well as English language.

Since April 2004 is study programme Transport in Crises Situations accredited. In Fig.2 are described reasons for introducing this three level study programme.

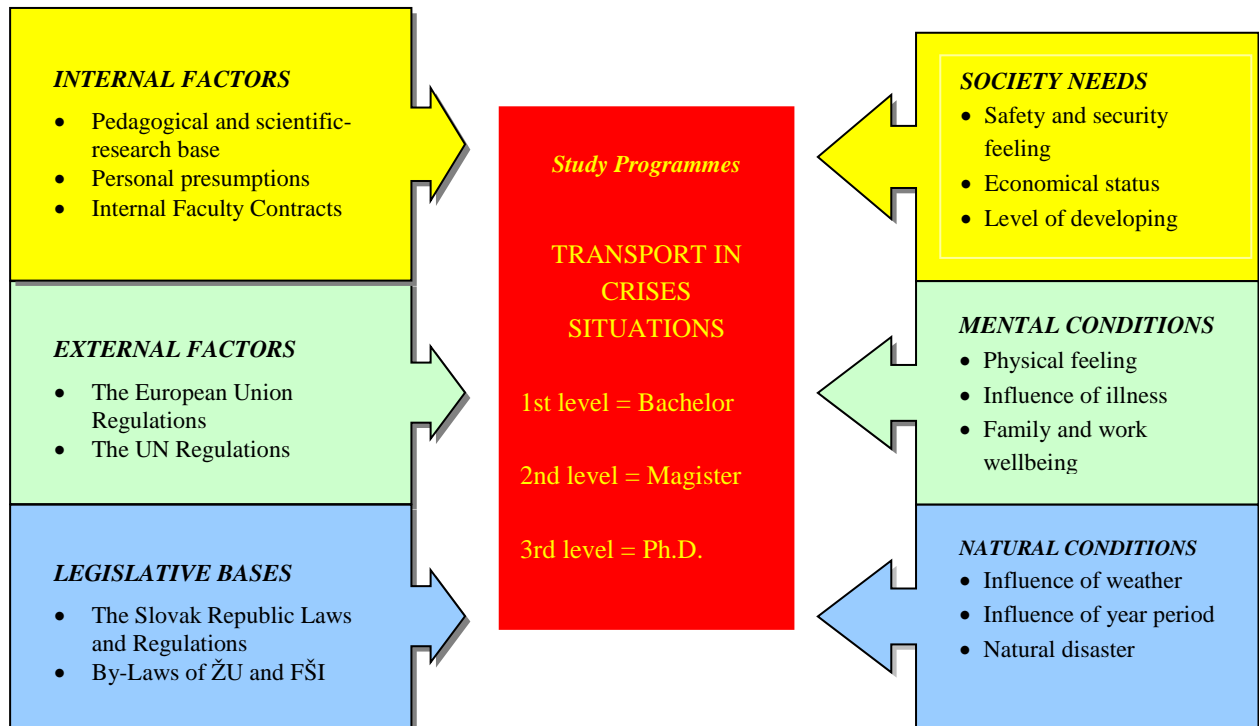


Fig.2 General factors of the study programme formation

Two professors and three associate professors, who are members of the department, are sufficient to guarantee all three levels of the study. Lecturing according to these new study programmes necessarily requires department members' qualification increase and other external lecturers. Besides pedagogical qualifications, every teacher of the department has many years experience and positive results in scientific and research activities. The department has solved more than fifty scientific and research tasks. Persons responsible for their solution have proven abilities to work individually and creatively. These are some of the current scientific tasks:

- Integrated transport system
- Theoretical fundamentals of transport management in crises situations
- Education in the sphere of transport logistics and its management
- Simulation of traffic operation and divisions' permeable performance determination in crisis situations
- Crisis transport provision
- Organisation of road and railway transport in the conditions of reduced transport efficiency
- Logistic assistance in evacuation
- System of crisis management at the Ministry of Transport, Post and Telecommunications of the Slovak republic
- Solution of crises situations in transport infrastructure

4. STUDY PROGRAMMES FRAMING CONTENTS

Curricula of all three levels of the study contain 98 compulsory, compulsory elective and elective subjects. Some of them are taught in the course of more semesters. Crucial subjects in the first, second and the third level of the study are listed in Tab.1

Tab.1

1st level – Bachelor Study Programmes Subjects

General transport orientation
Complex Machinery Maintenance Dynamics of Road Vehicles Movement Electrical engineering and Traction Environmental Aspects of Transport Forwarding Intermodal Transport Logistics Marketing in Transport Material Handling in Transport2) Mobile Means of Transport Propellants Safety and Protection of Health at Work in Transport Transport Economics Transport Infrastructure Transport Services Legislation Transport Technologies2)
Crises situations orientation
Civilian Protection in Transport Crisis Management1) Dangerous Substances and their Transport Fire Protection in Transport Protection of Persons and Property Protection of Transport Objects Radiation, Chemical and Biological Protection Solution of Crises Situations (Natural, Environmental, Infrastructural) 1) Theory and Construction of Vehicles used in Crises Situations Traffic Control in case of Crises Situations

The bachelor study is focused on basic knowledge and for basic skills. The profile of bachelor students is directed to work in logistics and transport companies on level of lower management. There also exists possibility to work in military and police units on special positions.

Tab.2

2nd level – Engineering Study Programmes Subjects

General transport orientation
Fundamentals of Transport Engineering International Freight Traffic Communications and Security Technique Dynamics of Automobile Movements in Terrain Management of a Transport Establishment Forensic Engineering Management and Information Systems in transport¹⁾ Technology of Mass Public Transport Business and Financial Policy of a Transport Establishment Quality Management in Transport Services Conceptual Solution of Transport Projects
Crises situations orientation
Transport provision of evacuation¹⁾ Integrated Transport System Restoration on railway and road networks²⁾ Professional provision of evacuation²⁾ Specific Transport Systems Risk Theory Crises planning¹⁾ Crises Situations Legislation

Tab.3

3rd level – Doctorate Study Programmes Subjects

General transport orientation
Theory of Transport Systems¹⁾ Economics of Transport Services Informational Technologies in Transport Services Logistics in Freight Traffic
Crises situations orientation
Risks and Functionality of Transport Systems State Transport Policy Creation

Note to all tabs: ¹⁾ compulsory subjects for final state (doctorate) examinations
²⁾ elective subjects for final state (doctorate) examinations

Resource [3]

5. CONCLUSION

Changes in society bring also changes of education and study needs. The Faculty of Special Engineering University of Zilina has got long-time experiences from all these transformation process. Every successful institution has to respond to society changes. The aim of this paper was to present information about tasks of a new study programme formation. Aspiration of members of faculty team is to help with creating the same or similar study programme at others universities.

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