

### B-III – Charakteristika studijního předmětu

<b>Název studijního předmětu</b>	<b>Processes of Risk Assessment and Treatment</b>			
<b>Typ předmětu</b>	Compulsory, ZT		<b>doporučený ročník / semestr</b>	2/ZS
<b>Rozsah studijního předmětu</b>	28 + 28s	<b>hod.</b>	56	<b>kreditů</b> 7
<b>Prerekvizity, korekvizity, ekvivalence</b>	<p><b>Pre-requisites:</b> "Mathematics I", "Management", "Informatics", "Fundamentals of Linear Algebra and Optimization" and "Crisis Management and Security System in the Czech Republic", or passing courses of similar orientation.</p> <p><b>Co-requisites:</b> "Applied Informatics", "Public Law", "Protection of Population and Integrated Rescue System", "Security and Protection of Objects and Persons", "Cyber Security", "Financial Risk Management", "Crisis Management in Business", "Economics of crisis events", "Health and Safety at Work" and "Integrated Management System".</p> <p><b>Equivalence:</b> none</p>			
<b>Způsob ověření studijních výsledků</b>	credit, examination		<b>Forma výuky</b>	lectures, seminars
<b>Forma způsobu ověření studijních výsledků a další požadavky na studenta</b>	<p>a) at least 75% active participation in the exercises; in case of not-participating, student will arrange date of continuous or final test and case study individually;</p> <p>b) for combined students - passing of two control tests;</p> <p>c) completed credit test and continuous tests with a rating of at least "E" in accordance with the "European Credit Transfer System";</p> <p>d) a well-defended case study;</p> <p>e) written or oral exam depending on the number of students.</p>			
<b>Garant předmětu</b>	prof. Ing. Vladimír Adamec, CSc.			
<b>Zapojení garanta do výuky předmětu</b>	The guarantor determines the concept of the subject, participates in 50 % lectures and further determines the concept of exercises and oversees their unified leadership.			
<b>Vyučující</b>	prof. Ing. Vladimír Adamec, CSc. – lectures (50 %), seminars (50 %) Ing. Slavomíra Vargová, PhD. – lectures (50 %), seminars (50 %)			
<b>Stručná anotace předmětu</b>	<p>The course "<i>Processes of Risk Assessment and Treatment</i>", which has a highly interdisciplinary character, provides students the theoretical and methodological basis necessary for mastering the profile courses of the study program. The course is taught in other bachelor study programs developed by the faculty. It creates a theoretical basis for ensuring security in industry, public administrations and the region. It is the first step toward understanding the semi-quantitative and quantitative risk assessment, the design and selection of optimal precautionary measures, minimization and effective monitoring and risk perception, including effective risk communication, which is a relevant part of the follow-up master's degree program "Company Security". General knowledge of the basics of algebra, the number of probabilities, statistics and management is required.</p> <p>The course acquaints students with the terminology and aspects of risk classification, including the importance of risk management in ensuring the security of processes, and possibilities of taking advantage of opportunities. The content of the course is also the explanation of the general scheme of assessment and control of risks, basic methods of input data interpretation, and formulation of principles for determining the extent and purpose of risk analysis. An integral part of course is the interpretation of qualitative methods and procedures for setting up a register of threats, register of assets, screening, prioritization and assessing risk acceptability. Finally, the basic methods and procedures for designing and selecting measures to prevent and reduce risks, using inventive methods and risk monitoring, are clarified.</p> <p>The aim of the course is to prepare students to qualitatively evaluate, prioritize and to effectively manage risks with emphasis on practical applicability in operation of companies, public administration organizations, region, and partially in security services, information and communication technologies and critical protection infrastructure, in environment of uncertainties and vagueness.</p> <p>During the exercises, the practical examples of qualitative analysis and risk control by individual student groups are solved and discussed. The aim is to verify their ability to apply acquired knowledge and skills in practice. The student's knowledge is verified twice a semester through the test. The course is finished by defending a case study prepared by a group of 3-5 students on pre-assigned topics, optimally according to the focus of bachelor theses of students, if it is already known.</p> <p><b>Topics of the course by individual blocks of instruction</b> (l = lecture; s = seminar, e = exercise)</p>			

- Introduction to the course (introduction with the structure of the course, conditions for granting the credit and passing the exam) and terminology of risk management (2l, 2s);
- Classification aspects of risks (2l, 2s);
- General risk management scheme, methods of collection and interpretation of input data (2l, 2s);
- Identification, compilation of the registry and verbal evaluation of threats (2l, 2s);
- Identification, compilation of the register and verbal evaluation of the vulnerability of the assets (2l, 2s);
- Qualitative risk assessment (screening) (6l, 6e);
- Integrated risk assessment and risk position of the entity and region (2l, 2s);
- Risk acceptance assessment (2l, 2s);
- Procedures, principles and methods of prevention, mitigation and risk monitoring (2l, 2s);
- Design and selection of measures to prevent or minimize the risk using inventive methods (2l, 2s);
- Case study - defence of case studies elaborated by groups of students and credit test (4l, 4s).

#### Studijní literatura a studijní pomůcky

##### Obligatory literature

ALSTON, Gregory. *How safe is safe enough?: leadership, safety and risk management*. London, 2016. ISBN 978-1-138-25356-8.

BABINEC, F. *Management rizika. Loss Prevention & Safety Promotion*. Opava, 2005.

Božek, František a Urban, Rudolf. *Management rizika: obecná část*. 2008. ISBN 978-80-7231-259-7.

SUTTON, I. *Process Risk and Reliability Management: Operational Integrity Management*. Oxford, 2000. ISBN 978-1-4377-7805-2.

BRODER, J. F. *Risk Analysis and the Security Survey*. New York, 2006. ISBN 978-0-7506-7922-0.

##### Recommended literature

WAGNER, D. *Managing country risk: a practitioner's guide to effective cross-border risk analysis*. 2012. ISBN 978-1-4665-0047-1.

Tichý, Milík. *Ovládání rizika: Analýza a management*. 2006. ISBN 80-7179-415-5.

BERNATÍK, A. *Prevence závažných havárií I.*. Ostrava, 2006. ISBN 80-86634-89-2.

Flaus, Jean-Marie. *Risk analysis. Socio-technical and industrial systems*. 2013.

Pritchard, Carl L. *Risk management : concepts and guidance*. 4th ed. Arlington, Va. : ESI International, 2010. ISBN 978-1-890367-55-8.

#### Informace ke kombinované nebo distanční formě

Rozsah konzultací (soustředění)

18

hodin

Informace o způsobu kontaktu s vyučujícím

Possibility of professional consultations at scheduled consultation hours or on individual agreement.