#### **Course title: Risk Managemant**

Course code: 25044

ECTS credits: 4

Requirements: None

## **Basic information**

Level of studies: Undergraduate applied studies

Year of study: 3

Trimester: 7

Goal: Mastering the methodology in the field of risk management; identifying, analyzing and assessing risk events and scenarios in various areas of traffic and transport activities, as well as applying appropriate risk management models according to the market situation.

Outcome: After completing the course, students will be able to identify and analyze impacts and risks in a changing environment and to respond to certain risk factors on time, thus increasing the return on investment. Students will be able to apply appropriate risk management models. They will also be able to actively participate in the work of project teams in making investment decisions, both in complex systems in the financial market and in individual projects.

# Contents of the course

Theoretical instruction

1. Risk management concept: Risk identification; Risk analysis and assessment; Risk response (response) planning; Control of risk response.

2. Elements of decision-making process in risk management: Tasks of decisionmaking theory in risk management; Structure of the decision-making process in risk management; Attitude to risk.

Risk management models: Decision expected value models; The decision tree.

3. Risk management models in conditions of uncertainty: Critical point method; Sensitivity analysis; Scenario analysis; Application of game theory in decision theory.

4. Risk management models for investment decision-making: Payback period; The concept of the time value of money; Net present value method; Internal rate of return method; Cost - Benefit analysis.

Relationship between risk and return on investment: Methods of describing risk; Creating a risk plan; Implementation of the risk plan; Limitations in planning and implementing a risk plan. 5. Areas of study of risk management: Risk management (investment) in companies; Project risk management; Financial market risk management; Foreign exchange risk management, review and evaluation of the risk plan.

Practical instruction (Problem solving sessions/Lab work/Practical training)

1. Solving tasks by applying different models for risk management (decision tree, critical point method, game theory, models for risk management in investment decision-making, models of multi-criteria decision-making ...).

### **Textbooks and References**

1. C. Alexander, E. Sheedy, The Profeessional Risk Managers 'Handbook: A Comprehensive Guide to Current Theory and Best Practices, Wilmington, 2004.

2. C.W. Smith, H.C. Smithson, S.D. Wilford, Managing Financial Risk, 3rd ed., McGrawHill, New York, 1998.

3. K. Sadgrove, (2008) .The Complete Guide to Business Risk Management, Gower Publishing, Ltd.

4. P. Jovanović, Investment Management, Grafoslog, Belgrade, 1997.

5. R. Dubonjic, Lj. D. Milanović, Engineering Economics, ICIM plus, Kruševac, 2005.

### Number of active classes (weekly)

Lectures: 2

Practical classes: 2

Other types of classes: 0

### Grading (maximum number of points: 100)

Pre-exam obligations: Points

Activities during lectures: 10

Activities on practical exercises:

Seminary work:

Colloquium: 60

**Final exam: Points** 

Written exam: 30

Oral exam:

### Lecturer

Stevan Veličković, PhD

Associate