Course title: Sustainability and Quality in Traffic and Logistics

Course code: 30057

ECTS credits: 5

Requirements: None

Basic information

Level of studies: Undergraduate applied studies

Year of study: 3

Trimester: 7

Goal: The aim of the course is to enable students to master the methodology in the field of return and internal logistics, as well as to understand the requirements of certain types of goods in terms of packaging, transport and handling depending on the position in the supply chain; to introduce students to the basic concepts, elements and aspects of quality systems and quality management methods (QM), with changes in the environment and ways of analysis, standardization, documentation and design of quality systems in the (postal) system. Special emphasis is placed on the role of management in improving quality in order to enable students to design quality programs, define vision and mission, set quality goals and choose a service quality strategy.

Outcome: After completing the course, the student will be able to analyze the flow of reverse and internal logistics, define logistics and transport solutions according to the requirements of goods, propose the appropriate type of packaging, transport and handling of the observed goods depending on the position in the supply chain, quality system in the (postal) system from setting the quality elements to obtaining the quality certificate. The student will be able to analyze the quality of services (in the postal system), to define a set of actions with the aim of improving the quality of services. Quality management has become a key task of management and through this course students will be able to understand the complexity and comprehensiveness of managing complex transport and logistics systems such as the postal system.

Contents of the course

Theoretical instruction

- 1. Challenges of sustainability in transport and logistics. Return flows of goods, green logistics.
 - 2. Challenges of internal logistics.
 - 3. Requirements of goods in the distribution process.
 - 4. Packaging in logistics flows. Impact of transport on the environment.
 - 5. Transport of dangerous goods.
 - 6. Alternative modes of transport.

- 7. The concept of quality: Definition of quality; Historical development of quality management; Quality costs. Quality management and control: Quality management tools and techniques; Total quality management; Advanced tools and methods for quality improvement. Quality in postal traffic.
- 8. Quality of services from the point of view of the Universal Postal Union; Quality of services according to the General Plan of Postal Services; Analysis of the quality of postal services; Quality of work of postal counter services; Influence of economic factor on the level of quality; The role of management in the process of improving the quality of postal services; Quality program design; Documentation for the quality system in postal traffic.
 - 9. Measuring customer satisfaction.
- 10. Content and quality management process: General quality model; Standardization in the field of quality; Quality system loop; Quality system improvement program based on standards. Methodology and design of quality system: Analysis of the postal system; Defining system quality; Establishment of a documentation system; Implementation of quality system; Certification.
- 11. The role of management in quality improvement: Designing quality programs; Service quality strategies; Defining the vision and mission in the quality system; Setting goals in the quality system; Choice of strategy for quality system.

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

- 1. Presentation of student seminar papers on topics related to the understanding of theoretical material and the application of tools and techniques of quality systems.
- 2. Solving the problem of transport of dangerous goods, finding bottlenecks in logistics flows, analysis of alternative modes of transport.

Textbooks and References

- 1. J. Vladić. Mechanization and technology of transshipment. FTN, Novi Sad, 2005
- 2. Ljubomir Petrović. Transport of dangerous goods in road traffic" "Introduction to the restructured ADP" ". Trigon inženjering Belgrade, 2004.
- 3.M.Kilibarda, C. M. Zečević, Quality Management in Logistics, Faculty of Transportation, Belgrade, 2008,
- 4. M. Heleta, TQM Model of Excellence Integrated Management Systems and Model of Excellence, Edukta, Belgrade, 2004
- 5. Tepić, I. Tanackov, G. Stojić, S. Sremac. Transport-logistical characteristics and flows of goods. FTN, Novi Sad, 2013

Number of active classes (weekly)

Lectures: 2
Practical classes: 3
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: 10
Colloquium: 50
Final exam: Points
Written exam: 30
Oral exam:
Lecturer
Stevan Veličković, PhD
Associate