

# Department of Logistics – general information

Field of study: Logistics

Type of qualification: BSc Eng.

Mode of study: full-time, part-time

Duration: 3,5 years

# Specialization: aviation logistics, airport management, military logistics

### Educational profile:

- aviation logistics,
- airport management,
- military logistics.

Language of instruction: Polish, English – only for the Erasmus+ incoming students

**Characteristics of qualification:** The studies enable the acquisition of the knowledge and practical skills required for the professional execution of tasks in the field of civil and military logistics with a particular focus on aviation. They provide students with complete and professional training followed up by apprenticeship.

**Requirements for candidates:** The studies are designed for secondary school graduates who have passed secondary school leaving exam (A-level). The first two specialization courses are dedicated to civilian students. Military logistics is suitable for both military and civilian students.

Limits (number of students): 20 or multiple of 20 in subsequent years.

**Department of Logistics** 

Field of study: Logistics

Type of qualification: MSc Eng.

Mode of study: full-time, part-time

**Duration: 1,5 years** 

Specialization: aviation logistics, airport management, military logistics

#### Educational profile:

- aviation logistics,
- airport management,
- military logistics.

Language of instruction: Polish, English – only for the Erasmus+ incoming students

**Characteristics of qualification:** The studies enable the acquisition of the knowledge and practical skills required for the professional execution of tasks in the field of civil and military logistics with a particular focus on aviation. They provide students with complete and professional training followed up by apprenticeship.

**Requirements for candidates:** The studies are designed for graduates of first-degree studies (engineering or undergraduate). The first two specialization courses are dedicated to civilian students. Military logistics is suitable for both military and civilian students.

Limits (number of students): 20 or multiple of 20 in subsequent years.



| COURSE CATALOGUE OFFER            |  |                 |             |   |           |              |         |
|-----------------------------------|--|-----------------|-------------|---|-----------|--------------|---------|
| Academic year: 2020/2021 Erasmus+ |  |                 |             |   |           |              | ;+      |
| Department of Logistics           |  |                 |             |   |           |              |         |
| Field of study: Logistics         |  |                 |             |   |           |              |         |
| ISCED - F code: 1041              |  |                 |             |   |           |              |         |
| Language of instruction: English  |  |                 |             |   |           |              |         |
| Index                             | Name of the course                               | Number of hours | ECTS points | Number of hours<br>acc. to the form of<br>classes |           |              |         |
|                                   |  |                 |             | lectures  | exercises | laboratories | project |
| Core Module                       |  |                 |             |   |           |              |         |
| 1                                 | Stock management                                 | 30              | 4           | 10  | 10        | -            | 10      |
| 2                                 | Logistics companies                              | 150             | 11          | 30  | 90        | -            | 30      |
| 3                                 | Services marketing                               | 30              | 3           | 10  | 10        | -            | 10      |
| 4                                 | Military aviation<br>logistics<br>infrastructure | 30              | 4           | 10  | 10        | 10           | -       |
| 5                                 | Logistic information systems                     | 30              | 4           | 10  | 10        | 10           | -       |
| Total                             | ETCS   |                 | 26          |   |           |              |         |



## Description of the modules

### Core Module

### 1. Stock management

#### **Educational content:**

The nature and importance of storage management. Stock classification. Classical models of stock control. Cost and value. Demand. Stock management. Storage process support. Storage/warehouse. Stock shaping models. Stock control. Just-in-time. Kanban.

#### Effects of education - abilities and competences:

Learners shall have necessary knowledge to describe, analyse and optimise activities of selected elements of stock management as well as basic phenomena and processes in the scope of logistics supply. They have orderly knowledge within storage infrastructure objects, in particular objects designed for logistic activities, also basic knowledge of the lifecycle of devices, equipment and technical systems of storage logistics and stock shaping. Compare design solutions of logistics, production and maintenance systems with regard to set performance and economical criteria. Have basic knowledge in the scope of storage management including stock and quality management as well as business activity elements. Know environmental hazards caused by industrial development including stock and storage management. Can think and act in an entrepreneurial manner.

### 2. Logistic companies

#### Educational content:

Characteristics of logistics subsystems. Logistics supply. Supply as part of logistics operations. Logistics of production. The organization of production. Manufacturing as a process of transformation of goods. Logistics distribution. Functions and tasks distribution. Problems of distribution logistics. Selected distribution strategy - definitions and examples. Channels flows - definitions, role and examples. Tasks wholesalers, retailers, brokers and agents. Indicators of distribution logistics. Transport logistics and freight forwarding. Logistics centers and warehouses. The importance of logistics supply logistics system of the company. Methods of forming stocks. Problems of supply logistics. Just-in-time. Logistics of production. The production system. Forms of organization of production. Flexible organization of production. The production cycle. Logistics production planning. Production scheduling using ERP.

#### Effects of education - abilities and competences:

Have basic knowledge in the construction and materials used in the aerospace industry, their impact on the implementation of logistics processes, production and maintenance. He has knowledge in the operation of logistics enterprises including supply, production and distribution. He has a detailed knowledge of the operation of aircraft, facilities and technical equipment related to aviation logistics. He knows the current status and recent trends of development of logistics. It has a basic knowledge of the life cycle of the equipment, facilities and systems logistics. Can in relation to objects and processes in the logistics plan and carry out the experiment and simulation and using properly chosen tools to measure and interpret the results, draw conclusions, can present the results in numerical and graphical form.

He can - when formulating and solving the tasks of design elements and logistics systems, production and maintenance - to see their non-technical aspects, including environmental, economic and legal. He can compare design solutions logistics systems, production and maintenance due to the given criteria and economic utility. It can make a critical analysis of the methods of operation and evaluate the existing technical solutions in logistics, production and operation, in particular equipment, facilities, systems, processes, services. Hi is able to identify and formulate the specification of simple engineering tasks of practical, specific to the areas of logistics. Hi is able to plan, design and



implement a system or process in the area of logistics, using appropriate methods, techniques and tools.

# 3. Services marketing

### **Educational content:**

Services marketing in today's developed market economies. Marketing in service companies. Customer segmentation on service market. The concept of relationship marketing. Marketing mix for services. The service and price as instruments of the marketing mix. Staff and service process. Distribution services. Promotion of services and image building by a company. Analysis and marketing planning for a service company.

### Effects of education - abilities and competences:

Students gain the necessary knowledge about the specific services and marketing activities, using appropriate instruments of marketing mix in order to create a competitive advantage the company.

# 4. Military aviation logistics infrastructure

### **Educational content:**

Military airport infrastructure. Definitions of airport elements. Airport operations security infrastructure. Basic operational characteristics of military airport. Operational safety of airports and security of air operations. Infrastructure equipment. Maintenance of airfield pavements. The concept of infrastructure logistics processes. Transport infrastructure. Infrastructure of storage and handling.

#### Effects of education - abilities and competences:

Introduction to basic definitions relating to airport infrastructure and security infrastructure. Making skills of determining the main elements of airport infrastructure and security infrastructure. Learn the basics of construction, maintenance and operation of airports. Understand logistic processes in the military airport and the role of infrastructure components.

## 5. Logistics information systems

## Educational framework:

Computer logistics support. Characteristics of information systems architecture. Systems integration and management. Military logistic expert systems. Logistic report systems – LOGREP, LOGFAS.

## Effects of education - abilities and competences:

Preparing students to use computerized tools for logistic support. Making students familiar with modern software tools supporting work in the area of logistics. Acquiring the ability to use computer technology to solve problems in the field of logistics. Knowledge of the rules of electronic logistic documents preparation and processing.