

### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Organisation and operation of security systems

Course

Field of study Year/Semester

Safety Engineering 3/6

Area of study (specialization) Profile of study

general academic Course offered in

First-cycle studies Polish

Form of study Requirements full-time compulsory

Number of hours

Level of study

Lecture Laboratory classes Other (e.g. online)

15

Tutorials Projects/seminars

15 15

**Number of credit points** 

2

#### **Lecturers**

Responsible for the course/lecturer:

Responsible for the course/lecturer:

Ph.D., Eng. Grzegorz Dahlke

Mail to: grzegorz.dahlke@put.poznan.pl

Phone: +48 616653379

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

## **Prerequisites**

The student has the knowledge to define and characterize the basic concepts and principles of state



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

security and security management systems in enterprises with particular emphasis on crisis and emergency situations.

The student is able to plan, organize and evaluate the functioning of security management systems related to emergency preparedness. He/she is able to identify threats with particular emphasis on critical infrastructure.

The student is aware of the importance of security management at the level of the State, local government units and companies. The student is aware of methods, tools and techniques supporting security management processes.

## **Course objective**

Teaching the theoretical and practical aspects related to planning, organizing, implementing and evaluating systemic security management at the level of the State, local government units and companies. The detailed objective of the exercises is to learn the principles of creating a crisis management system at the operational level of the commune, district and province.

### **Course-related learning outcomes**

### Knowledge

- 1. the student has detailed knowledge about the organization and functioning of security systems of the State, local government units and companies [K1 W02]
- 2. the student is familiar with the basic elements of the company's emergency preparedness and crisis management plan at local government level [K1\_W02]
- 3. the student knows the detailed tools and methods used to support decisions made in the four phases of crisis management [K1\_W03]

#### Skills

- 1. the student is able to acquire, integrate, interpret information from literature, databases and other properly selected sources, also in English, concerning security management, crisis management, critical infrastructure and issues of creating emergency preparedness plans [K1\_U01].
- 2. the student is able to create a well-documented study programme containing basic elements of crisis management plans (emergency preparedness plan) [K1\_U07].
- 3. the student has the ability to independently seek knowledge in the preparation of crisis management plans (emergency preparedness plans) and understands the need to apply them in particular phases of crisis management [K1 U07].
- 4. the student is able to indicate legal and methodical requirements and to use engineering methods and tools when formulating and solving tasks related to the preparation of emergency (crisis) plans [K1\_U09].



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

5. the student is able to make a critical analysis of how the system of preparation for crisis situations (emergency) functions and assess the applied solutions in different phases of crisis management and preparation for emergency situations - [K1\_U11].

# Social competences

- 1. Student ma świadomość ważności i rozumie pozatechniczne aspekty i skutki działalności inżynierskiej, w tym jej wpływu na środowisko i związanej z tym odpowiedzialności za podejmowane decyzje [K1\_K02]
- 2. Student ma świadomość odpowiedzialności za pracę własną oraz gotowość podporządkowania się zasadom pracy w zespole i ponoszenia odpowiedzialności za wspólnie realizowane zadania [K1\_K07]
- 3. Student potrafi planować i zarządzać przedsięwzięciami biznesowymi [K1\_K03]

# Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Formal evaluation:

- a) exercises: current assessment (on a scale from 2 to 5) of tasks and colloquia,
- b) lectures: assessment of responses during a written colloquium.
- c) projects: evaluation of the implementation of project tasks.

## Summary evaluation:

- a) exercises: average of partial tasks' marks; a pass after obtaining at least 3.0,
- b) lectures: a written colloquium (answers to 30 open and closed questions) of the content presented during the lecture; each answer is scored on a scale from 0 to 1; the score is calculated after summing up the points and recalculating according to the scale provided for in the study regulations.
- c) Projects: assessment of the implementation of the project tasks carried out in the ten chapters; credit after obtaining at least a 3.0 grade (the condition is to prepare ten main tasks).

#### **Programme content**

Subjective and subjective aspect of security. Threats and their social perception. States resulting from the occurrence of threats. The concept of crisis. Emergency states. Levels of response. Crisis management and its phases. Rescue and emergency response planning. Public safety. Ensuring security. Entity security system. Security management. Security management system. Selected security systems. Safety planning. Civil Planning. Organizing security. Characteristics of organizing and functioning of services in selected security systems. Civil security. Civil-state cooperation in the field of security. Civil defense. Ensuring functioning of security system. Monitoring in security systems. Organization of information, warning and alerting.



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

The content of the exercises covers topics: Identification of threats in a crisis management plan at the commune/poviat/company level; Risk assessment for threats identified in a crisis management plan; Identification of critical infrastructure facilities (national and European); Analysis and assessment of the importance of critical infrastructure facilities; Risk assessment of threats to critical infrastructure facilities; Developing hazard mapping and risk maps in the emergency management plan at commune/district/region level; Networking in the national emergency management plan for identified threats at commune/district/region level; Developing procedures and instructions in the emergency management plans at commune/district/region level;

## **Teaching methods**

Lecture supported by a multimedia presentation. During the training classes, students use the outlines for tasks including the preparation of elements of emergency plans and carry out exercises using computers. During design classes, students complete design tasks using methods and tools discussed by the class lecturer.

### **Bibliography**

#### Basic

- 1. Kosieradzka Anna, Zawiła-Niedźwiecki Janusz (red.), Zaawansowana metodyka oceny ryzyka w publicznym zarządzaniu kryzysowym, Wydawnictwo edu-Libri, s. 390, 2016.
- 2. Radziejewski Ryszard, Ochrona infrastruktury krytycznej. Teoria i praktyka, : Wydawnictwo Naukowe PWN, s. 210, Warszawa, 2016.
- 3. Krajowy Plan Zarządzania Kryzysowego RP
- 4. Narodowy Program Ochrony Infrastruktury Krytycznej RP
- 5. Strategia Rozwoju Systemu Bezpieczeństwa Narodowego RP
- 6. Strategia Bezpieczeństwa Narodowego RP
- 7. Szymonik A., Organizacja i funkcjonowanie systemów bezpieczeństwa, Difin, Warszawa 2011.

#### Additional

- 1. Dahlke Grzegorz, Zarządzanie bezpieczeństwem pracy i higieną pracy, WPP, Poznań 2013.
- 2. Sienkiewicz-Małyjurek Katarzyna, Krynojewski Franciszek, Zarządzanie kryzysowe w administracji publicznej, Wydawnictwo: Difin, s. 220, 2010.
- 3. Ficoń K., Inżynieria zarządzania kryzysowego. Podejście systemowe, BEL Studio, Warszawa 2016.
- 4. Serafin T., Parszowski S., Bezpieczeństwo społeczności lokalnych. Programy prewencyjne w systemie bezpieczeństwa, Difin, Warszawa 2011.
- 5. Skomra W., Ochrona infrastruktury krytycznej w systemie zarządzania kryzysowego, RCB.



# EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

6. Tyrała P., Zarządzanie kryzysowe, Wyd. Adam Marszałek, Toruń 2001.

# Breakdown of average student's workload

	Hours	ECTS
Total workload	90	2,0
Classes requiring direct contact with the teacher	45	1,0
Student's own work (literature studies, preparation for	45	1,0
laboratory classes/tutorials, preparation for tests/exam, project		
preparation) <sup>1</sup>		

5

<sup>&</sup>lt;sup>1</sup> delete or add other activities as appropriate