Faculty of Engineering Management

| STUDY MODULE DESCRIPTION FORM | | | | | |
|---|---|---|--|--|--|
| Name of the module/subject Organization and working of the safety systems | | Code 1011101251011122959 | | | |
| Field of study Safety Engineering - Full-time studies - First- | Profile of study (general academic, practical) (brak) | Year /Semester 3 / 5 | | | |
| Elective path/specialty | Subject offered in: Polish | Course (compulsory, elective) elective | | | |
| Cycle of study: | Form of study (full-time,part-time) | | | | |
| First-cycle studies full-time | | time | | | |
| No. of hours | | No. of credits | | | |
| Lecture: 15 Classes: 30 Laboratory: - | Project/seminars: | 15 4 | | | |
| Status of the course in the study program (Basic, major, other) (university-wide, from another field) | | | | | |
| (brak) | (brak) | | | | |
| Education areas and fields of science and art | | ECTS distribution (number and %) | | | |
| Responsible for subject / lecturer: | | | | | |

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Wydział Inżynierii Zarządzania ul. Strzelecka 11 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

| 1 | Knowledge | Student defines and describes basic notions concerning management systems of occupational health and safety. |
|---|---------------------|--|
| 2 | Skills | Student can plan, organize and assess the functioning of management systems. Student can interpret the results of observation. |
| 3 | Social competencies | Student is aware of the meaning of management systems of occupational health and safety. Student is aware of the need to develop safety systems of subjects. |

Assumptions and objectives of the course:

Developing understanding of theoretical aspects and practical abilities of organizing and ensuring right functioning of safety systems.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student has extensive knowledge of organizing and functioning of safety systems - [K1A_W12]

Skills:

- 1. Student can acquire, integrate, interpret data from literature, database or other properly matched sources, also in English language [K1A_U01]
- 2. Student can create, both in English and Polish language, a well- documented report of problems within Safety Engineering, which presents the results of their own research [K1A_U03]
- 3. Student has self-study ability and comprehends it [K1A_U05]
- 4. Student can, while formulating and solving engineering tasks, discern their systemic and non-technical aspects and also socio-technical, organizational and economic approach [K1A_U10]
- 5. Student can conduct a critical analysis of the ways in which technical solutions function and can assess, by means of Safety Engineering, the existing technical solutions, in particular machines, equipment, objects, systems, services and processes [K1A_U13]

Social competencies:

- 1. Student is aware of the relevance and comprehends some of the non-technical aspects and consequences of engineering activity, including its impact on an environment and connected with it, responsibility for undertaken decisions [K1A_K02]
- 2. Student is fully aware of the responsibility that he has taken for his own work and expresses readiness to comply with the rules of team work, as well as takes responsibility for mutually realized and completed tasks [K1A_K03]
- 3. Student can plan and manage business enterprises [K1A_K06]

Assessment methods of study outcomes

Formative assessment:

Classes current/ongoing evaluation (2-5) of assigned tasks;

Projects: current/ongoing evaluation of work progress on a given project;

Lectures: evaluations based on questions relating to the presented materials during the current and previous lectures.

Collective assessment:

Classes: average of partial exercises; credits given after achieving at least 3.0;

Projects: evaluation of the presented solution with reference to the chosen project; credits given after achieving at least 3.0; Lectures: written test (3 open questions with content presented during the lectures); each question is scored 2-5 points; final result is an average of partial grades; the final test pass equals at least 3.0.

Course description

Subjective and objective aspect of security. Threats and their social perceptions. States resulting from the existence of threats. The notion of crisis. Exceptional states. Reaction levels. Crisis management and its stages. Rescue planning and reacting in time of a crisis. Public safety. Ensuring safety. Subject safety system. Managing system. System management system. Selected system systems. System planning, Civil planning. Characteristics of the service authorities within the selected safety systems. Civil safety. Civil defence. Ensuring proper functioning of a safety system. Monitoring in safety systems. Organization of informing, warning and alarming

Basic bibliography:

1. Szymonik A., Organizacja i funkcjonowanie systemów bezpieczeństwa (Organization and functioning of safety systems), Difin, Warszawa 2011.

Additional bibliography:

- 1. Ficoń K., Inżynieria zarządzania kryzysowego. Podejście systemowe (Crisis managements. System approach), BEL Studio, Warszawa 2007.
- 2. Koziej S., Wstęp do teorii i historii bezpieczeństwa (Introduction to the theory and history of safety) (skrypt internetowy http://www.koziej.pl/), Warszawa/Ursynów 2010.
- 3. Serafin T., Parszowski S., Bezpieczeństwo społeczności lokalnych (Safety of local societies). Programy prewencyjne w systemie bezpieczeństwa, Difin, Warszawa 2011.
- 4. Tyrała P. (red.), Zarządzanie bezpieczeństwem (Security management), Wydawnictwo Profesjonalnej Szkoły Biznesu, Kraków 2000.
- 5. Tyrała P., Zarządzanie kryzysowe (Crisis management), Wyd. Adam Marszałek, Toruń 2001.

Result of average student's workload

| Activity | Time (working hours) |
|----------------------------------|----------------------|
| 1 lecture | 15 |
| 2 preparation for lecture credit | 20 |
| 3 classes | 30 |
| 4 preparation for classes | 20 |
| 5 project | 15 |
| 6 preparation of project work | 20 |

Student's workload

| Source of workload | hours | ECTS |
|----------------------|-------|------|
| Total workload | 120 | 4 |
| Contact hours | 65 | 2 |
| Practical activities | 45 | 2 |