



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma Seminar with introduction to scientific research

### Course

Field of study

Safety Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

part-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

60

### Number of credit points

15

### Lecturers

Responsible for the course/lecturer:

dr hab. inż. Agnieszka Misztal prof. PP

Wydział Inżynierii Zarządzania

Instytut Inżynierii Bezpieczeństwa i Jakości

ul. Rychlewskiego 2

60-965 Poznań

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Responsible for the course/lecturer:

thesis supervisors

Wydział Inżynierii Zarządzania

Instytut Inżynierii Bezpieczeństwa i Jakości

ul. Rychlewskiego 2

60-965 Poznań

### Prerequisites

Student has knowledge of a subject within the standards of education at first-cycle studies in the field of Safety Engineering. Student is able to use knowledge acquired during the studies that enables to



describe, analyze, evaluate, design and verify safety problems in practice. Student is responsible, can interact with others and work in a team. Student understands need for lifelong learning and acting in accordance with the rules.

### Course objective

Substantive, methodical and editorial support while writing the diploma thesis as a work confirming the acquisition of knowledge, skills and social competences by the graduate.

### Course-related learning outcomes

#### Knowledge

1. knows issues life cycle of products, devices, objects, systems and technical systems, as well as quality engineering in relation to products and processes sufficiently to take up solution to the problem of security in business practice [P6S\_WG\_06]
2. knows basic methods, techniques, tools and materials used in preparation for conducting scientific research and undertaking research topic in the diploma thesis using information technology, information protection and computer aided [P6S\_WK\_04]
3. knows basic concepts and principles of copyright protection, information security and intellectual property protection in a market economy that relate to the thesis [P6S\_WK\_05]

#### Skills

1. is able to properly select sources and information derived from them for purpose of their evaluation, critical analysis and synthesis for purposes of the thesis [P6S\_UW\_01]
2. is able to use various techniques to communicate in vocational and other environments in order to obtain the data necessary to solve the problem [P6S\_UW\_02].
3. is able to use analytical, simulation and experimental methods for solving the diploma problem, also using information and communication methods and tools [P6S\_UW\_04]
4. is able to demonstrate by means of appropriate personal issue included in the thesis [P6S\_UK\_01]
5. is able to plan and conduct experiments, including computer measurements and simulations, interpret the results obtained and draw conclusions in order to solve a problem [P6S\_UO\_01]
6. is able to identify changes in requirements, standards, regulations and technical progress and the reality of the labour market and, on the basis of these changes, to determine the needs for completing knowledge [P6S\_UU\_01].

#### Social competences

1. is aware of recognition importance of knowledge in solving problems posed in diploma thesis and continuous improvement [P6S\_KK\_02]
2. is aware of the understanding of non-technical aspects and effects of engineering activities, including their impact on the environment and the related responsibility for decisions taken [P6S\_KK\_03]



3. is able to initiate activities related to formulation and transfer information in field of security engineering [P6S\_KO\_02]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

on the basis of ongoing progress in the formulation of the research problem and work objectives and the selection and justification of research methods, student involvement, advancement of research work and independent inference

### Programme content

Preparation of the work plan

Setting goals as well as objective and substantive scope of work

Justification for the choice of topic

Analysis of related literature

Presentation of the research area

Selection and justification of the research method, study plan

Implementation of own research

Formulation of conclusions

Presentation of the prepared thesis

### Teaching methods

talk, explanation, work with a book and magazine, work with bibliographic databases, problem method, workshop method, presentation.

### Bibliography

Basic

1. Rozpondek M., Wyciślik A., Seminarium dyplomowe: praca dyplomowa magisterska i inżynierska : pierwsza praca - know how, Wydawnictwo Politechniki Śląskiej, Gliwice 2007.
2. Majchrzak J., Mendel T., Metodyka pisania prac magisterskich i dyplomowych : poradnik pisania prac promocyjnych oraz innych opracowań naukowych wraz z przygotowaniem ich do obrony lub publikacji, Wydawnictwo Uniwersytetu Ekonomicznego, Poznań 2009.
3. Dudziak A., Żejmo A., Redagowanie prac dyplomowych : wskazówki metodyczne dla studentów, Centrum Doradztwa i Informacji Difin, Warszawa 2008.
4. Kolman R., Zdobywanie wiedzy: poradnik podnoszenia kwalifikacji (magisteria, doktoraty, habilitacje), Oficyna Wydawnicza Branta, Bydgoszcz-Gdańsk 2004.



5. Kłos Z. (red.), Rozprawy naukowe, Wydawnictwo Politechniki Poznańskiej, Poznań 2011.
6. Regulamin realizacji prac dyplomowych oraz przebiegu egzaminu dyplomowego (materiały wewnętrzne Wydziału inżynierii Zarządzania opublikowane na stronie internetowej).

Additional

1. Borcz L., Vademecum pracy dyplomowej, Wydawnictwo WSEiA, Bytom 2001.
2. Wójcik K., Piszę akademicką pracę promocyjną, Placet, Warszawa 2005.
3. Szkutnik Z., Metodyka pisania pracy dyplomowej, Wydawnictwo Poznańskie, Poznań 2005.
4. Pułło A., Prace magisterskie i licencjackie. PWN, Warszawa, 2001.

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	225	15,0
Classes requiring direct contact with the teacher	60	4,0
Student's own work (literature studies, preparation for seminar, preparation of the presentation) <sup>1</sup>	165	11,0

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