



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Master's thesis - research project [S2IBIJ1>PM-PB]

### Course

Field of study

Safety and Quality Engineering

Year/Semester

2/3

Area of study (specialization)

Safety and Crisis Management

Profile of study

general academic

Level of study

second-cycle

Course offered in

polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

120

### Number of credit points

15,00

### Coordinators

dr hab. inż. Beata Mrugalska prof. PP  
beata.mrugalska@put.poznan.pl

### Lecturers

### Prerequisites

The student has knowledge in accordance with the program of study in the field of Security Engineering. The student is able to establish contacts with enterprises, conduct interviews, perform apparatus measurements, analyze source materials available in enterprises and search literature databases, in connection with the realized topic of the thesis. He is able to work in a team, recognizes the need for continuing education.

### Course objective

The purpose of the prepared thesis is to solve a problem, defined in the thesis topic and detailed in the topic sheet. He should master the ability to clearly and correctly express his thoughts in written and verbal form.

### Course-related learning outcomes

Knowledge:

1 The student has an in-depth knowledge of the methods and theories used in solving the problems of modern safety engineering, quality engineering, ergonomics and occupational safety and is able to use them in determining the topic and purpose of the thesis and formulate the scope of the topic [K2\_W03].

2. The student has an in-depth knowledge of good practices in quality, ergonomics, occupational safety and emergency management and is able to use them [K2\_W04].

#### Skills:

1. The student is able to properly select sources, including literature sources and information from them, as well as evaluate, critically analyze, synthesize and creatively interpret this information, formulate conclusions and comprehensively justify an opinion during the presentation of results and verbalize the acquired knowledge and present it in various ways [K2\_U01].

2. The student is able to develop and properly apply methods and tools for solving complex problems specific to the field of safety engineering, quality, ergonomics and occupational safety and emergency management or select and apply existing and known methods and tools and formulate conclusions of the work done [K2\_U03].

3. The student is able to formulate and test hypotheses related to simple research problems specific to safety engineering, quality engineering, ergonomics and occupational safety and crisis management, and draw the necessary conclusions for the preparation of the thesis [K2\_U04].

4. The student is able to independently plan and implement his/her professional development [K2\_U14].

#### Social competences:

1. The student is critical of his/her knowledge gained during the studies, uses the opinions of experts when solving cognitive and practical problems related to the subject matter of the realized thesis [K2\_K01].

2. The student correctly identifies and resolves dilemmas related to quality, ergonomics and safety at work, understands the need to make the public aware of the need to shape safety in various areas of the organization's functioning [K2\_K02].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Ongoing consultations with the promoter. Presentation of research results during the MA seminar.

Opinion about the job prepared by the supervisor. Opinion about the work prepared by the reviewer.

Defense of thesis during the master's examination.

The student receives credit after obtaining at least 51% of the required points. The detailed procedure is described in the Study Regulations.

### Programme content

The structure of the master's thesis. Purpose and rules of its preparation. Approaches and methods for conducting research and preparing the text of the work. The main parts of the master's thesis and relations between them. The most common mistakes when writing a thesis. Presentation by students and discussion in the seminar group: 1) the results of literature research regarding the problem posed at work; 2) external and internal conditions of the functioning of the entity (organization) in which the research is carried out; 3) the results of the analysis of the solution to the problem currently used in the organization, - the concept / improvement project solving the given problem.

### Teaching methods

Working with a book, description, classic problem method, explanation, method of cases.

### Bibliography

Basic:

1. Regulamin pisanie pracy dyplomowej WIZ PP.

2. Szkutnik Z. (2005), *Metodyka pisanie pracy dyplomowej: skrypt dla studentów*, Wydawnictwo Poznańskie, Poznań.

3. Babbie E. (2007), *Badania społeczne w praktyce*, PWN, Warszawa.

4. Czakon W. (2016), (red.) *Podstawy metodologii badań w naukach o zarządzaniu*, Wydawnictwo Nieoczywiste - imprin GAB Media, Piaseczno.

5. Budniak E., Mateja B., Sławińska M. (2016), *Specyfika kompleksowego ujęcia edukacji w zakresie ergonomii w bezpieczeństwie*, Zeszyty Naukowe Politechniki Poznańskiej, Organizacja i Zarządzanie, Wydawnictwo Politechniki Poznańskiej, nr 69, s. 5-16.

Additional:

1. Węglińska M. (2005), Jak pisać pracę magisterską?, Oficyna Wydawnicza "impuls", Kraków.
2. Kaszyńska A. (2008), Jak napisać, przepisać i z sukcesem obronić pracę dyplomową lub magisterską? Wydawnictwo Złote Myśli, Gliwice.
3. Zawacki-Richter O. et. al. red. (2020), Systematic Reviews in Educational Research: Methodology, Perspectives and Application, Springer.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	370	15,00
Classes requiring direct contact with the teacher	120	5,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	250	10,00