COURSE DESCRIPTION CARD - SYLLABUS

Course name
Engineering thesis preparation [S1DSwB1>PPI]

Course

Field of study
Data Science in Business

Year/Semester
4/7

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
205

Number of credit points

15,00

Coordinators

dr hab. inż. Agnieszka Misztal prof. PP
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Lecturers

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 inaccordance 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:
Describes the research methods and analytical tools used in the implementation of the engineering thesis and the principles of selecting them for a specific research problem [DSB1_W07].

Skills:

Selects and analyzes scientific literature and sources of information, selecting materials relevant to the completion of the engineering thesis [DSB1_U01].
Designs the structure and schedule of the engineering thesis, considering the goals, scope, and justification for the choice of topic [DSB1_U03].
Formulates the goals of the engineering thesis and selects appropriate research methods for its implementation [DSB1_U05].
Conducts data analysis and uses research tools to obtain results that allow solving the research problem [DSB1_U08].
Creates accurate technical documentation and research reports that meet the requirements of the engineering thesis [DSB1_U12].
Plans and organizes their work on the engineering project, effectively managing time and resources [DSB1_U13].
Presents the results of the thesis, justifying the adopted assumptions, methods, and conclusions from the conducted research [DSB1_U14].

Social competences:
Critically analyzes one's own knowledge and skills in preparing the engineering thesis, striving for continuous improvement [DSB1_K01].
Utilizes available information sources and scientific achievements ethically and in accordance with academic integrity principles [DSB1_K02].
Takes responsibility for the quality of the developed engineering thesis and its compliance with the applicable standards [DSB1_K05].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Rating forming:
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.
Rating summary:
Assessment of the process of preparing the diploma thesis and the results obtained.
passing threshold: 60% of the points.

Programme content

Preparation of the work plan. Setting goals 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.

Course topics

Preparing the thesis work plan - discussing the structure of the thesis, timeline of activities, and principles of planning the research process.
Defining the objectives and scope of the thesis - formulating the main and specific objectives, determining the thematic and research scope.
Justifying the choice of the thesis topic - analyzing the relevance, scientific significance, and practical value of the chosen research problem.
Literature review - searching for, selecting, and critically analyzing academic sources, preparing a literature overview.
Presentation of the research site - describing the organization or area under study, including institutional and industry context.
Selection and justification of the research method, research plan - discussing the research methodology, research tools, and planning the data collection process.
Conducting own research - carrying out the research according to the plan, collecting and organizing data.
Drawing conclusions - analyzing research results, identifying relationships, and formulating practical and/or scientific conclusions.
Presentation of the prepared thesis - preparing for the final presentation, organizing the structure, and

discussing key elements of the thesis.

Teaching methods

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

Bibliography

Basic:
1. Regulamin realizacji prac dyplomowych oraz przebiegu egzaminu dyplomowego (materiały wewnętrzne Wydziału inżynierii Zarządzania opublikowane na stronie internetowej).
2. Czakon W. (red.), Podstawy metodologii badań w naukach i zarządzaniu, Oficyna a Wolters Kluwer business, Warszawa 2015.
3. 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.
4. Dudziak A., Żejmo A., Redagowanie prac dyplomowych: wskazówki metodyczne dla studentów, Centrum Doradztwa i Informacji Difin, Warszawa 2008.
5. Kłos Z. (red.), Rozprawy naukowe, Wydawnictwo Politechniki Poznańskiej, Poznań 2011

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.

Breakdown of average student's workload

	Hours	ECTS
Total workload	375	15,00
Classes requiring direct contact with the teacher	205	8,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	170	7,00