



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma seminar

	Course
Field of study	Year/Semester
Mechanical and Automotive Engineering	2/3
Area of study (specialization)	Profile of study
Refrigerated vehicles	general academic
Level of study	Course offered in
Second-cycle studies	Polish
Form of study	Requirements
part-time	elective

Number of		
hours		
Lecture	Laboratory classes	Other (e.g. online)
0	0	0
Tutorials	Projects/seminars	
0	9	
<b>Number of credit points</b>		
2		

Lecturers	
Responsible for the course/lecturer: prof. dr hab. inż. Krzysztof Bieńczak	Responsible for the course/lecturer:
email: krzysztof.bieniczak@put.poznan.pl	
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ul. Piotrowo 3, 60-965 Poznań	

Prerequisites
KNOWLEDGE: The graduate has a basic knowledge of the principles of conducting design and research work. He knows the importance of having adequate information in solving tasks.
SKILLS: The graduate student is able to search and integrate the obtained information, interpret it, draw conclusions, and use IT tools.
SOCIAL COMPETENCES: The graduate is aware of the importance and understands non-technical, especially formal and legal aspects and the effects of implementing a promotional master's thesis and the need to undergo verification in terms of professional knowledge.



## Course objective

The objective of the course is to familiarize graduates with the requirements for a diploma - master's thesis. Students acquire the ability to present and interpret the literature studies and the results own research. Additionally, students are acquainted with the methodology and technique of writing of master's diploma thesis.

## Course-related learning outcomes

### Knowledge

Has knowledge of the principles of safety and ergonomics in the design and operation of machines and the threats that machines pose to the natural environment.

Has general knowledge of standardization, EU recommendations and directives, national, industry and international standards systems, and industrial standards.

Has extended knowledge of modern construction materials such as carbon plastics, composites, ceramics, in terms of their construction, processing technology and applications.

### Skills

He can correctly select the optimal material and its processing technology for typical parts of working machines, taking into account the latest achievements in material engineering.

He can design the technology of exploitation of a selected machine with a high degree of complexity.

Can formulate and test hypotheses related to simple research problems.

### Social competences

He is ready to critically assess his knowledge and received content.

Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in case of difficulties in solving the problem on its own.

Is ready to fulfill professional roles responsibly, taking into account changing social needs, including:

- developing the professional achievements,
- maintaining the ethos of the profession,
- observing and developing the rules of professional ethics and acting towards the observance of these rules.

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

A credit for a diploma seminar with a grade is issued on the basis of a set of presentations that have been planned as part of the seminar, paper or co-presentation. The amount of the grade depends on the level of presentations, the course of master's work and its level, and estimated by the lecturer the progress of work. Additionally, the evaluation is influenced by the activity of the seminar participants in discussions on seminar and their attendance.



## Programme content

- Introduction and organization of the subject - a repetition of the formal, legal and methodological foundations for the preparation and realization of the master's diploma thesis and setting the dates of individual speeches of graduates in accordance with the subject of the diploma thesis.
- Fundamentals of the methodology presentation, concerning the subject of master's thesis - presentation of the subject of the master's work, its genesis, the purpose, the tasks, the way of achieving the goal, and the scope in the form of a diploma work plan, and literature related to the subject of master's work (presentation in Power Point, used to a large extent for the preparation of the thesis during the defense).
- Individual presentations of master's thesis - individual speeches of graduates with presentations of the subject, genesis, goal and diploma plan; discussion of the structure of the master's work and substantive issues of the work and own original contribution; comments and summary of students' speeches by the teacher.
- Presentation of the realization of the master's thesis - individual reporting on the progress of diploma work, written in a text editor, containing graphic objects, and results of own master's studies, testing, research, both completed activities and in progress. Reporting the obtained results and their interpretation, presentation of possible problems with the realization of the master's work; discussion.
- Summary of the stage of master's thesis - summary of individual speeches graduate students related to the realization of master's diploma work; discussion with current presenters and other seminar participants.
- Preparation for the defense of an master's diploma work - reminding of formal requirements for work at the Faculty as well as for documents and preparatory procedures for the defense of the diploma thesis and the examination from field of study.

## Teaching methods

1. Individual multimedia presentations of the graduates in Power-Point of the subject, genesis, goal and master's diploma work plan.
2. Individual multimedia presentations of graduates in a text editor (Word) of the progress of writing the master's diploma work.
3. Discussion on the speeches with the participation of graduate students and summary by the lecturer.

## Bibliography

### Basic

1. Wójcik K.: I am writing an academic promotional work bachelor's, master's, doctoral / Piszę akademicką pracę promocyjną licencjacką, magisterską, doktorską (9th edition, supplemented and corrected). Ed. Wolters Kluwer, Warsaw, 2015 (in Polish).



2. Kwaśniewska K.: How to write a thesis (practical tips) / Jak pisać prac dyplomową (wskazówki praktyczne). 4th edition updated. Ed. Kujawsko-Pomorskie University in Bydgoszcz, Bydgoszcz, 2015 (in Polish).
3. Wiśłocki K.: Methodology and editing of theses / Metodologia i redakcja prac dyplomowych. Publishing House of PUT, Poznań, 2013 (in Polish).
4. Rawa T.: Methodology of performing engineering and master's theses / Metodyka wykonania inżynierskich i magisterskich prac dyplomowych. Ed. The University Warmia and Mazury in Olsztyn, Olsztyn, 2012 (in Polish).
5. Kaczmarek S. and others: How to like a diploma thesis / Jak polubić pracę dyplomową. Ed. University of Lodz, 2012 (in Polish).
6. Zenderowski J.: Master's thesis. How to write and defend? - methodological guidelines / Praca magisterska. Jak pisać i obronić? - wskazówki metodologiczne. Fachowe CeDeWu Publishing House, Warsaw, 2007 (in Polish).
7. Przechowalski T.: Master's and diploma theses with the LaTeX program / Prace magisterskie, dyplomowe z programem LaTeX. Oficyna Wolters Kluwer Biznes, Warsaw, 2011 (in Polish).

#### Additional

1. Gambrelli G., Łucki Z.: Thesis / Praca dyplomowa. Ed. AGH, Krakow, 2011 (in Polish).
2. Wojciechowska R.: Methodical guide to writing a thesis / Przewodnik metodyczny pisania pracy dyplomowej. Ed. DiFir SA, 2010 (in Polish).
3. Boć J.: How to write a thesis? (philological consultation by J. Miodek) / Jak pisać pracę magisterską? (konsultacja filologiczna J. Miodek). Ed. Cologne Limited, Wrocław, 2009 (in Polish).
4. Urban S., Ładoński W.: How to write a good MA thesis / Jak napisać dobrą pracę magisterską. Ed. University of Economics, Wrocław, 2003 (in Polish) .

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	30	2,0
Classes requiring direct contact with the teacher	18	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	12	1,0

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