



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Interim project - railway vehicles

### Course

Field of study

Year/Semester

Construction and Exploitation of Means of Transport

2/2

Area of study (specialization)

Profile of study

Railway 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)

Tutorials

Projects/seminars

4

### Number of credit points

5

### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

Lecturers conducting master's thesis

### Prerequisites

The student has the basics of knowledge about the issue to which the transitional work is to be devoted. The student is able to use the selected computer text editor and correctly uses the language in which the work is to be written. The student is able to use texts and use the tools to support engineering works in the areas covered by the study program.

### Course objective

Preparation of a written work on a given topic in accordance with the generally applicable rules of editing the texts of scientific papers.

### Course-related learning outcomes

Knowledge

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.



He knows the main development trends in the field of mechanical engineering.

### 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.

Can perform a medium complex design of a working machine or its assembly using modern CAD tools, including tools for spatial modeling of machines and calculations using the finite element method.

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

### 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.

It is ready to fulfill social obligations, inspire and organize activities for the benefit of the social environment.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment of the transitional work in terms of content, methodology and editorial.

### Programme content

Determining the detailed topic and title of the work as well as its substantive scope, indicating the sources of literature searches; discussion of the work schedule, questions, comments and suggestions. Individual discussion with the student about the work plan and collected materials; approval of the plan by the teacher. The most important principles of writing works concerning, inter alia, work structure, literature, descriptions of figures and tables, editorial guidelines, etc. Individual discussion of the corrected and assessed work.

### Teaching methods

Conversation lecture, talk, description, consultation.

### Bibliography

Basic

1. Pułło A., Prace magisterskie i licencjackie. PWN, Warszawa 2000.
2. Sęk A.: Podstawowe zasady pisania prac dyplomowych, Wydawnictwo Wyższej Szkoły Ekonomiczno-Społecznej, 2012.



3. Urban S., Ładoński W.: Jak napisać dobrą pracę magisterską. Wrocław, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego, 2003.

4. Wojcik K.: Piszę akademicką pracę promocyjną - licencjacką, magisterską, doktorską, Wolters Kluwer, 2015.

Additional

1. Literature from the substantive area of the work

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	75	5,0
Classes requiring direct contact with the teacher	9	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	66	4,0

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