



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Diploma Seminar

### Course

Field of study

Mechanical and Automotive Engineering

Area of study (specialization)

Rail vehicles

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

polish

Requirements

elective

### Number of hours

Lecture

0

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

30

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Franciszek Tomaszewski

Responsible for the course/lecturer:

email:

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61-665 2570

Wydział Inżynierii Lądowej i Transportu

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### Prerequisites

KNOWLEDGE: Knowledge of issues related to the subject of the master's thesis

SKILLS: Can use the scientific method in solving problems, carrying out experiments and making conclusions

SOCIAL COMPETENCES: Knows the limitations of own knowledge and skills; is able to precisely formulate questions, understands the need for further education



### Course objective

Broadening the knowledge and skills on the organization, conducting scientific and technical works and presenting the results of these works.

### Course-related learning outcomes

#### Knowledge

Has extended knowledge of material strength in the field of nonlinear models, fracture and fatigue strength, calculations of statically indeterminate structures, structure stability.

Has a general knowledge of the types of research and methods of testing working machines with the use of modern measurement techniques and data acquisition.

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

#### Skills

He can develop a technical description, offer and design documentation for a complex machine from a selected group of machines.

Can plan and carry out experimental research of specific processes taking place in machines and routine tests of a working machine or a vehicle from a selected group of machines.

Can communicate on specialist topics with a diverse audience.

#### 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:

credit

### Programme content

General part: types of qualification works, including diploma theses, rules for their implementation, requirements for master's theses. Formulating a technical problem and thesis, study of literature, methodological part of the thesis, presentation of research results, development of observations i requests. Principles of work editing, editing support, development of graphic elements, preparation of the work for printing and duplication.

Specialist part: reporting of theses carried out by the authors

### Teaching methods



Lecture with multimedia presentation.

## Bibliography

### Basic

1. Leszek W. Badania empiryczne. Wyd. ITE, Radom 1997
2. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Wyd. Politechniki Śląskiej, Gliwice 2003
3. Dobre obyczaje w nauce. Zbiór zasad i wytycznych (wyd. 3), Wyd. PAN Warszawa 2001
4. Zaczyński W.: Poradnik autora prac seminaryjnych, dyplomowych i magisterskich. Warszawa 1995
5. Urban S., Ładoński W., Jak napisać dobrą pracę magisterską, wyd. 4 uzup., Wyd. Akademia Ekonomiczna we Wrocławiu, Wrocław 2001
6. Wiśłocki K., Metodologia i redakcja prac naukowych. Wydawnictwo Politechnik Poznańskiej, Poznań 2013.

### Additional

1. Wojciechowska R., Przewodnik metodyczny pisania pracy dyplomowej. Wyd. DIFIN, 2010
2. Boć J., Jak pisać pracę magisterską, wyd. 4 popr., Wyd. Kolonia Wrocław, 2003

## Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	30	1,0

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