

#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

#### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Diploma Seminar

Course

Field of study Year/Semester

Construction and Exploitation of Means of Transport 4/7

Area of study (specialization) Profile of study

Mass Transport Vehicles general academic
Level of study Course offered in

First-cycle studies Polish

Form of study Requirements

full-time elective

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

Tutorials Projects/seminars

15

**Number of credit points** 

15

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

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Faculty of Civil and Transport Engineering

ul Piotrowo 3, 60-965 Poznań

## **Prerequisites**

KNOWLEDGE: Has basic knowledge of mechanics, strength of materials, fluid mechanics, materials science, as well as basic specialized subjects (construction of road and rail vehicles.

SKILLS: Can use the acquired knowledge to analyze specific phenomena and processes in the movement of objects. The student is able to solve specific problems appearing in technical systems.

SOCIAL COMPETENCES: The student is able to work in a group, assuming different roles in it, shows independence in solving problems, acquiring and improving the acquired knowledge and skills.



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## **Course objective**

Expanding knowledge and skills on the organization and conduct of engineering works and the presentation of the results of these works.

## **Course-related learning outcomes**

#### Knowledge

Has extended basic knowledge necessary to understand specialized subjects and specialist knowledge about the construction, construction methods, manufacturing and operation of a selected group of working, transport, thermal and flow machines covered by the specialization profile at the Faculty of Civil Engineering and Transport, in particular:

- 1. Food and refrigeration machinery
- 2. Working machines (construction and agricultural)
- 3. Motor vehicles
- 4. Mass transport vehicles
- 5. Mechatronic systems
- 6. Internal combustion engines
- 7. Aircraft engines
- 8. Thermal techniques
- 9. Virtual design engineering

Program modules related to the above-mentioned specializations are optional and selected by the student in the form of packages of elective subjects.

#### Skills

He can obtain information from literature, the Internet, databases and other sources. Can integrate the obtained information, interpret and draw conclusions from it, and create and justify opinions.

He can search in catalogs and on manufacturers' websites ready-made machine components to be used in his own projects.

He can use computer office packages for editing technical texts, including formulas and tables, technical and economic calculations using a spreadsheet and running a simple relational database.

#### Social competences

He is ready to critically evaluate his knowledge and received content,

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



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## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Credit based on the presence, ongoing control of the progress of the implementation of the engineering thesis and the presentation of the diploma thesis.

#### **Programme content**

Definition and division of scientific works, description of promotional works, presentation and discussion of the necessary documents for thesis defense and the most important provisions of the regulations of full-time and part-time studies relating to theses defended at the Poznan University of Technology, formulation of the research problem, discussion of the engineering thesis (introduction, main text, purpose, scope of the work, quotation of literature, summary), presentation of the methods of including the table of contents, tables, drawings, references to literature in the work, reminder of the principles of creating editorial and typographic studies in Polish, elements of copyright, discussion of the main components of the presentation of the thesis, discussion and presentation of their diploma thesis by students.

#### **Teaching methods**

1st lecture with a multimedia presentation

#### **Bibliography**

## Basic

- 1. Rawa T., Metodyka wykonywania inżynierskich i magisterskich prac dyplomowych, Olsztyn 1999.
- 2. Dobre obyczaje w nauce. Zbiór zasad i wytycznych, Warszawa: PAN, 2001.
- 3. Kenny P., Panie Przewodniczący, Panie, Panowie... Przewodnik po sztuce i technice wystąpień publicznych ułożony specjalnie dla inżynierów i pracowników nauki, Wrocław 1995.

#### Additional

- 1. Knecht Z., Metody uczenia się i zasady pisania prac dyplomowych. Poradnik jak się uczyć, jak pisać pracę dyplomową, Wrocław 1999.
- 2. Kozłowski R., Praktyczny sposób pisania prac dyplomowych. Z wykorzystaniem programu komputerowego i Internetu, Warszawa 2009.
- 3. Lindsay D., Dobre rady dla piszących teksty naukowe, Wrocław 1995.
- 4. Młyniec W., Ufnalska S., Scientific communication, czyli jak pisać i prezentować prace naukowe, Poznań 2003, 2004.
- 5. Opoka E., Uwagi o pisaniu i redagowaniu prac dyplomowych na studiach technicznych, Gliwice 1996, 1999, 2001, 2003.
- 6. Pioterek P., Zieleniecka B., Technika pisania prac dyplomowych, Poznań 1997, 2000, 2004.



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- 7. Szkutnik Z., Metodyka pisania pracy dyplomowej. Skrypt dla studentów, Poznań 2005.
- 8. Szubert-Zarzeczny U., Technika pisania prac o charakterze naukowym, Wrocław 2001.
- 9. Jadacka H., Termin techniczny. Pojęcie, budowa, poprawność, Warszawa 2000.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	380	15,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for	350	14,0
laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>		

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