



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Product Data Management systems 2

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### Course

Field of study

Product Lifecycle Engineering

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

English

Requirements

elective

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### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

30

### Number of credit points

2

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### Lecturers

Responsible for the course/lecturer:

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Faculty of Mechanical Engineering

Piotrowo Street No 3, 60-965 Poznań

Responsible for the course/lecturer:

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### Prerequisites

The student starting this subject should have a basic knowledge of the basics of information technologies, databases, product life cycle management. He should also be able to obtain information from specified sources and be willing to cooperate as part of a team.



### Course objective

Providing students with basic knowledge of methods, tools and systems supporting the creation, collection, management and sharing of data on the product (its structure), its documentation and its production processes, together with the possibility of processing in the database. Developing students' ability to solve problems that arise when managing product data.

### Course-related learning outcomes

#### Knowledge

1. The student has detailed knowledge about the assumptions, functionality (features and functions) and benefits of using PDM systems in the work of an engineer.
2. Student has knowledge about project documentation management (including technical data about the product) in PDM systems.
3. The student has knowledge about process management and product development supported by PDM systems.

#### Skills

1. The student has the ability to create projects, compile elements, assemblies, parts and documents related to the product (its development) in all stages of its life (from the concept stage to withdrawal from use).
2. Student is able to effectively review all relevant data on projects related to the analyzed product.
3. Student is able to indicate the state of changes of a given PDM object (version-revision-variant), prepare product parts lists in all commonly used forms (eg structural list, modular list, quantitative list of parts).
4. Student is able to indicate the status and workflow of each PDM object.

#### Social competences

1. The student understands that knowledge and skills related to the operation of PDM systems have an impact on the effective work of project teams in the enterprise.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Skills acquired as part of the project classes are verified on the basis of the developed project in the PDM system, the progress of which is assessed on an ongoing basis during the semester.

### Programme content

Project:

1. PDM - workflow.
2. PDM - replication of construction data.



3. Implementation of your own project in the PDM system.

**Teaching methods**

1. Project: performance of tasks given by the teacher - exercises in accordance with the prepared instruction for classes.

**Bibliography**

Basic

- 1. Port S., MacKrell J., PDM Case Studies: User Experiences with PDM Systems, CIMdata, Incorporated, 1996
- 2. Kals H., van Houten F., Integration of Process Knowledge into Design Support Systems, Proceedings of the 99 CIRP Design Seminar, 1999
- 3. Crnkovic I., Asklund U., Implementing and Integrating Product Data Management and Software Configuration Management, Artech House 2003

Additional

- 1. Documentation of the ENOVIA SMARTEAM PDM system

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	50	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>	20	1,0

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1 delete or add other activities as appropriate

