

# Product Lifecycle Engineering (PLE)

Field of study: Logistics



## Course summary:

### Semester 1

- Product Life-Cycle
- Sensing customer expectations
- Product design
- Product prototyping
- Product manufacturing
- Product design systems
- 3D Printing
- Virtual and Augmented Reality
- Product quality planning
- Product Data Management Systems
- PLE project
- Foreign language
- Elective humanistic and social subjects I

### Semester 2

- Product design (cont.)
- Materials
- Product quality inspection
- Data analysis
- Product safety
- Product ecology
- Production management for product manager
- Project management
- PLE project (cont.)
- Elective subjects I (e.g. Polymer processing)
- Elective subjects II (e.g. Robust design)
- Elective humanistic and social subjects II

### Semester 3

- Product maintenance
- Product recycling and disposal
- Costs in the Product Life-Cycle
- Elective subjects III (e.g. Industrial project for product manager)
- Elective subjects IV (e.g. Joining and assembly)
- Elective subjects V (e.g. Internet-of-Things)
- Elective humanistic and social subjects III
- Diploma seminar
- Preparation for Diploma Work

## Programme description

Graduates of the Product Lifecycle Engineering course will gain the knowledge and skills necessary to coordinate activities throughout the phases of a product's lifecycle. The course covers design, prototyping and testing, preparation and testing of the production process, production of a pilot series, and the full launch of a product, with consideration of technical, environmental, and economic aspects. The knowledge acquired will be general enough for the graduate to confidently coordinate and supervise the processes of preparation and implementation for production of products in various industries producing, for example, cars, household appliances, furniture, interior furnishings, personalized medical products, toys, packaging, stationery and more.

Graduates will be prepared to independently carry out comprehensive implementation of a product in small and medium-sized enterprises (SMEs) and to work in research and development, production, marketing, or sales departments, or in a production manager position.

The course is available to students with a bachelor's degree in mechanical engineering, production engineering, production management, or similar fields. The student must have the knowledge and skills necessary to study product lifecycle engineering, which include the basics of mathematics, product design, materials and production engineering, and the ability to use basic CAD and CAE tools.

The content of the course includes topics connected with Industry 4.0 technologies, including virtual design systems, the Internet of Things and product personalization. Much emphasis will be placed on the relationships between the processes in subsequent phases of a product's life, especially in the context of sustainable development. The course also includes interactive visits to manufacturing companies.



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<b>University</b>	Poznan University of Technology Poznan, POLAND
<b>Degree to be obtained</b>	Master of Science
<b>Programme website</b>	<a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>
<b>Contact</b>	International Relations Office Pl. M. Skłodowskiej-Curie 5 60-965 Poznan, Poland
<b>Phone</b>	+48 61 665 3544
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<b>E-mail</b>	<a href="mailto:study@put.poznan.pl">study@put.poznan.pl</a>
<b>Language of instruction</b>	English
<b>ECTS points</b>	90
<b>Duration</b>	1.5 years (3 semesters)
<b>Programme begins</b>	end of February
<b>Programme ends</b>	end of June
<b>Deadline for application</b>	3 months before the course starts – end of November
<b>Education requirements</b>	English language – level B2 (Common European Framework), Bachelor of Science degree (or equivalent) in mechanical engineering, production engineering, production management, or similar fields. Full list of the required documents is available at: <a href="https://www.put.poznan.pl/en">https://www.put.poznan.pl/en</a>
<b>Mode of instruction</b>	Lectures, classes, laboratory classes, projects, visits in companies

