



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technology and Organization of Assembly

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### Course

Field of study

Year/Semester

Mechanical engineering

1 / 2

Area of study (specialization)

Profile of study

general academic

Level of study

Course offered in

Second-cycle studies

Polish

Form of study

Requirements

part-time

compulsory

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### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

12

Tutorials

Projects/seminars

8

### Number of credit points

3

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### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

PhD., Eng. Jan Uniejewski

email: jan.uniejewski@put.poznan.pl

tel. 665 2051

Faculty of Mechanical Engineering

Piotrowo street 3, 60-965 Poznań

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### Prerequisites

Basic knowledge in the field of technological process design, ordered theoretical knowledge in the field of study, logical thinking, use of various sources of information (library, Internet) and processing of acquired information, self-study and self-education, use of information and communication techniques appropriate for engineering tasks, understanding the need to learn, acquiring new knowledge, organizing obtained information, understanding non-technical aspects and effects of engineering activities

### Course objective

Presentation of theoretical and practical problems related to the technology and organization of assembly processes



### Course-related learning outcomes

#### Knowledge

1. Knows and understands the essence and importance of the technological process of assembly in the production system- [K2\_W11, K2\_W15]
2. Knows the structure of the technological process of assembly and assembly methods- [K2\_W11, K2\_W15]

#### Skills

1. Develop the assembly project for the selected machine assemblies- [K2\_U09, K2\_U15]

#### Social competences

1. Can cooperate in a group- [K3\_K03]
2. Will follow the rules of ethics- [K2\_K02]
3. Is able to express his / her opinion and justify it - [K2\_K03]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The evaluation methods

- a) in the scope of the project on the basis of form and quality of prepared project,
- b) in the scope of the lectures: exam in the form of multiple-choice test, with answers among which at least one is correct, each question is scored on a scale from 0 to 1; the exam is awarded after obtaining at least 55% points.

### Programme content

Lecture:

- the essence and importance of the technological process of assembly in the production system;
- structure of technological process of assembly;
- accuracy and quality of assembly.
- classification of organizational forms of assembly;
- organization of assembly stations;
- characteristics of assembly methods;
- basic technologies used in assembly of machines and equipment;
- degrees of mechanization and automation of assembly;
- flexible assembly systems.



**Project:**

- development of the assembly project for the selected machine assemblies

**Teaching methods**

1. Lecture: multimedia presentation.
2. Project: project development (students own work), discussion, team work.

**Bibliography**

Basic

1. Podstawy technologii montażu maszyn i urządzeń, Puff Tt., Sołtys W., WNT, Warszawa, 1980,
2. Feld M., Technologia budowy maszyn, Wydawnictwo PWN, Warszawa 1993

Additional

1. Projektowanie i automatyzacja procesów technologicznych części maszyn, Feld M., WNT, Warszawa, 1994,
2. Technologia i automatyzacja montażu maszyn, T. Kowalski, G. Lis, W. Szenajch, Wyd. Politechniki Warszawskiej, Warszawa, 2000,

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	26	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	49	2,0

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