COURSE DESCRIPTION CARD - SYLLABUS

Course name
Production engineering [N1ZiIP2>InP]

Course

Field of study
Management and Production Engineering

Year/Semester
4/7

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
elective

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
24

Number of credit points

3,00

Coordinators

Lecturers

Prerequisites

The student knows basic manufacturing techniques and has knowledge of production management. He can work in a team, logically associate facts, use information obtained from various sources of knowledge and understands the need to learn.

Course objective

Combining the knowledge and skills acquired by students in the course of their studies so far in order to carry out a project to develop and/or implement solutions specific to the field of management and production engineering.

Course-related learning outcomes

Knowledge:
The student is able to justify actions taken in different phases of project implementation.
The student knows the characteristics and elements of the production system.
The student knows the methods of production control for selected forms of production organization.
The student knows the basic tools for preparing design and technological documentation.

Skills:
The student is able to justify actions taken in different phases of project implementation.

The student knows the characteristics and elements of the production system.
The student knows the methods of production control for selected forms of production organization.
The student knows the basic tools for preparing design and technological documentation.

Social competences:
The student understands the impact of decisions made on the final effect of the project and is able to determine the priorities of the tasks performed. The student understands the technical and non-technical aspects resulting from the actions taken.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment based on a report, multimedia presentation and discussion. Negative assessment if the presented report contains basic or incomplete data, there are substantive errors and inconsistencies that are not explained during the discussion. The amount of a positive assessment depends on the data presented and the analysis performed. The ability to make summaries, draw conclusions and explain issues during the discussion

Programme content

The transitional work is cross-sectional, combining the knowledge and skills of the Students acquired in the previous course of education. The Student prepares a project focused on one of the following areas:
- design of technological processes,
- organisation and control of production,
- supervision and control of production processes
- computerisation of production processes.

Course topics

The project is cross-sectional, combining the knowledge and skills of the Students acquired in the current course of education.
The Student prepares a project focused on one of the following areas:
- design of production processes,
- control of material processing processes,
- organization of production systems,
- production planning and control,
- supervision and control of production processes.

Depending on the area of work, the project may contain the following elements:
- purpose and scope of the project,
- profile and scope of the company's operations
- technical description of the product
- description of manufacturing processes
- description of the organization of the production process
- description of the activity related to supervision and control of the process
- description of the functioning of the IT system
- selected analyses, e.g. economic, marketing, legal, environmental, SWOT.

Teaching methods

Project: individual or group work, discussion, solving practical problems

Bibliography

Basic:
1. Organizacja i sterowanie, Marek Brzeziński, AW Placet, Warszawa, 2002
2. Zarządzanie produkcją. Produkt, technologia, organizacja, Edward Pająk, PWN, Warszawa, 200 6
3. Ogranizacja systemów produkcyjnych, Lewandowski Jerzy, Skołud Bożena, Plinta Dariusz, PWE, Warszawa 2014
4. Zarządzanie i inżynieria jakości, Adam Hamrol, Wydawnictwo Naukowe PWM, 2022
5. Techniki komputerowe CAx w inżynierii produkcji, E. Chlebus, WNT, Warszawa, 2000
6. Projektowanie procesów technologicznych typowych części maszyn. Feld M., WNT, Warszawa 2000

7.Sterowanie przepływem produkcji. Singer Zb.; Wyd. Politechniki Poznańskiej, Poznań 1998.
8. Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE, Warszawa 2011r

Additional:
1. Wprowadzenie do CAD. Podstawy komputerowo wspomaganego projektowania, Sydor M., PWN, 2019
2. Zaawansowane technologie współczesnych systemów produkcyjnych, Pająk E., Wyd. Politechniki Poznańskiej, Poznań, 2000 r.
3. Zarządzanie operacyjne. Waters J., Wydawnictwo Naukowe PWN Warszawa 2009
4. Tworzywa sztuczne w praktyce; Haponiuk J. T.; Wyd. Verlag Dashofer, Warszawa 2008.
5. Andrzej Jardzioch, Krzysztof Kalinowski, Sławomir Kłos, Organizacja i planowanie produkcji, PWE 2023.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	24	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	51	2,00