POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Flexible manufacturig systems

Course

Field of study	Year/Semester
logistics	3/5
Area of study (specialization)	Profile of study
	general academic
Level of study	Course offered in
First-cycle studies	polish
Form of study	Requirements
part-time	elective

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
10		
Tutorials	Projects/seminars	
	12	

Number of credit points
3

Lecturers

Responsible for the course/lecturer:

prof. dr hab. inż. Marek Fertsch

e-mail: marek.fertsch@ put.poznan.pl

tel. 48 61 665 3416

Wydział Inżynierii Zarządzania

ul. Jacka Rychlewskiego 2.

60-965 Poznań

Responsible for the course/lecturer:

dr inż. Ireneusz Gania

e-mail: ireneusz.gania@ put.poznan.pl

tel. 48 61 665 3385

Wydział Inżynierii Zarządzania

ul. Jacka Rychlewskiego 2.

60-965 Poznań

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

Prerequisites

The student knows the basic concepts related to the design, implementation and operation of production systems in mechanical engineering industries. He should also be able to obtain information from specified sources and be willing to cooperate as part of a team.

Course objective

Mastering the student's knowledge, skills and social competences related to the essence, scope of application and methods of designing and implementing flexible production systems.

Course-related learning outcomes

Knowledge

-- knows the basic issues of construction, technology and techniques related to logistics [P6S_WG_01]

-knows the basic concepts of logistics and its specific issues and supply chain management [P6S_WG_05]

-knows the basic methods, techniques, tools and materials used in preparation for conducting scientific research and solving simple engineering tasks in the field of designing logistics systems and processes [P6S_WK_07]

Skills

-s able to apply the right experimental and measuring techniques to solve the problem within the studied subject, including computer simulation within logistics and its specific issues, and supply chain management [P6S_UW_03]

- is able to see in engineering tasks system and non-technical aspects as well as socio-technical, organizational and economic [P6S_UW_05]

- is able to assess and make a critical economic analysis of the selected problem, which falls within the framework of logistics and its specific issues, and supply chain management [P6S_UW_07]

- can present, using properly selected means, a problem that falls within logistics and its specific issues, and supply chain management [P6S_UK_01]

Social competences

- is aware of the recognition of the importance of knowledge in the field of logistics and supply chain management in solving cognitive and practical problems [P6S_KK_02]

- is aware of initiating activities related to the formulation and transfer of information and cooperation in society in the field of logistics [P6S_KR_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

assessment based on a team-developed project,

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

grade based on written credit (exam)

Programme content

1. Flexible production automation. 2. Construction of flexible production systems. ESP functional subsystems. Machine tools in ESP. Control posts in ESP. Auxiliaries. 3. Designing flexible production systems. ESP design methods. Designing ESP functional subsystems. 4. Development of flexible production systems.

Teaching methods

1. Lecture: multimedia presentation, illustrated with examples on the board. 2. Projects: multimedia presentation illustrated with examples given on the board and performance of tasks given by the teacher.

Bibliography

Basic

1. Lis St., Santarek K., Strzelczak S Organizacja elastycznych systemów produkcyjnych WNT Warszawa 1994

2. Zawadzka L. Podstawy projektowania elastycznych systemów sterowania produkcją. Problemy techniczno-ekonomiczne WPG Gdańsk 2000

Additional

Sawik T., Łebkowski P. Elastyczne systemy produkcyjne WAG-H Kraków 1992

4. Świć A. Elastyczne systemy produkcyjne. Technologiczno-organizacyjne aspekty projektowania i eksploatacji, WPL Lublin 1998

5. Tempelmeier H., Kuhn H. Flexible Fertigungssysteme Springer Verlag 1993

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	22	
Student's own work (literature studies, preparation for exam, project preparation) [1]	53	

---

[1] delete or add other activities as appropriate