STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Computer aided planning and production control**		Code **1011105321011117649**
Field of study **Logistics - Part-time studies - Second-cycle**	Profile of study (general academic, practical) **general academic**	Year /Semester **1 / 2**
Elective path/specialty **Corporate Logistics**	Subject offered in: **Polish**	Course (compulsory, elective) **elective**
Cycle of study: **Second-cycle studies**	Form of study (full-time,part-time) **part-time**	

No. of hours				No. of credits
Lecture: **16** Classes: **-** Laboratory: **-** Project/seminars: **16**				**5**

Status of the course in the study program (Basic, major, other) **other**	(university-wide, from another field) **university-wide**

Education areas and fields of science and art	ECTS distribution (number and %**)**
technical sciences 　　　　**Technical sciences**	**5　100%** 　　**5　100%**

Responsible for subject / lecturer:	Responsible for subject / lecturer:
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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The student knows the basic concepts related to the management of production
2	**Skills**	The student has the ability to perceive and interpret the facts taking place in the sphere of production
3	**Social competencies**	The student understands the responsibility for decisions related to planning and shop floor control of production

Assumptions and objectives of the course:

Getting to know the basics of the issues relevant to the field of production planning, presentation methods of production planning and shop floor control and the scope of their computer aided.

Realization of the project system for planning and the system of production planning and shop floor control together with the preliminary computer aided design (developed in MS Excel) in order to determine the scope of the class MRPII system customization.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. The student characterized decisions on the levels of production planning and shop floor control and the scope of their computer aided. - [K2A_W02]

2. The student explains the features of job shop and flow shop production units and their impact on internal logistics - [K2A_W05]

3. The student characterized basic rules and methods of controlling the flow of material streams - [K2A_W08]

4. The student explains the basic concepts: model of production control, disruptions, time and buffer stock, the operational model - [K2A_W09]

5. The student describes the basic functionality of the computerized system MRPII class - [K2A_W12]

6. The student characterized basic methods of production planning in the conditions of dependent and independent demand - [K2A_W13]

Skills:

1. The student is able to present solution of the a developed production planning system and their computer aided. - [K2A_K04]

2. The student has the ability to self-propose solutions of specific problem in the area of production planning and shop floor control   - [K2A_U05]

3. The student can design a process indicators analysis to evaluate the proposed production planning system   - [K2A_U09]

4. The student can formulate task of building the computer aided system of production planning and shop floor control   - [K2A_U17]

5. The student can design a computer aided planning system for specific organizational conditions   - [K2A_U19]

Social competencies:

1. The student is aware of their responsibility for their own work and the willingness to subordinate with the rules of teamwork and take responsibility in the group of project - [K2A_K03]

2. The student is aware of the need to choose effective methods of production planning and shop floor control and their impact on competitiveness and entrepreneurship - [K2A_K06]

Assessment methods of study outcomes

Formative assessment:

a) For the project: on the basis of progress in the implementation stages of the project, and knowledge of the issues necessary to carry b) for the lecture: on the basis of answers to questions about the topics covered in previous lectures

Recapitulative assessment:

a) For the project: on the basis of (1) the quality of the project (2) answers to questions about the project b) for the lecture: on the basis of exam - written work on the issues discussed during the lecture. The exam can be applied after obtaining the ratings of the project and the laboratory. The exam is passed, after giving the correct answers to most questions

Course description

Lecture: presentation of three basic concepts of production planning: global, hierarchical and successive. Planning decisions at the level of production: strategic, tactical and operational level. Planning decisions at the level of production: finished goods, components and operations and the scope of their computer aided.

Presented is the basic model of planning: a model MRP and MRPII. Discussed is the idea of shop floor control of the production, base control model and control principles (rules) and methods of interdepartmental and inter-departmental production control.

Project: Project: Creation of the planning and shop floor control system for the fixed production and organizational conditions including the planning at the level of finished goods, components and operations together with the preliminary computer aided design (developed in MS Excel) in order to determine the scope of the class MRPII system customization.

Teaching methods:conventional specialist lecture, team project, work with literature.

Basic bibliography:

1. Fertsch M. Metoda planowania zapotrzebowania materiałowego w planowaniu produkcji i sterowania jej przebiegiem, Wydawnictwo Politechniki Poznańskiej, Poznań

2. Fertsch M., Fertsch M., Moduły systemów informatycznych zarządzania, Wydawnictwo Politechniki Poznańskiej, Poznań 2011

3. Senger Z., Sterowanie przepływem produkcji, Wydawnictwo Politechniki Poznańskiej, Poznań, 1998

4. Fertsch M., Podstawy zarządzania przepływem materiałów w przykładach, Biblioteka logistyka, Wydawnictwo ILiM, Poznań, 2003

Additional bibliography:

1. Brzeziński M., Organizacja i sterowanie produkcją. Projektowanie systemów produkcyjnych i procesów sterowania produkcją, Agencja Wydawnicza Placet, Warszawa 2002.

2. Hadaś Ł., Fertsch M., Cyplik P., Planowanie i sterowanie produkcją, Wydawnictwo Politechniki Poznańskiej, Poznań, 2012

Result of average student's workload

Activity	Time (working hours)
1. Lecture	30
2. Project	30
3. Own work	25
4. Preparing to pass exam	10

Student's workload

Source of workload	hours	ECTS
Total workload	125	5
Contact hours	67	3
Practical activities	65	2