

| <b>STUDY MODULE DESCRIPTION FORM</b>  |  |  |
|---|--|--|
| Name of the module/subject<br><b>Production and Operations Management</b>   |  | Code<br><b>1011104461011115676</b>   |
| Field of study<br><b>Logistics - Part-time studies - First-cycle</b>  | Profile of study<br>(general academic, practical)<br><b>(brak)</b> | Year /Semester<br><b>3 / 6</b>   |
| Elective path/specialty<br><b>-</b>   | Subject offered in:<br><b>Polish</b>                               | Course (compulsory, elective)<br><b>obligatory</b>   |
| Cycle of study:<br><b>First-cycle studies</b>   | Form of study (full-time, part-time)<br><b>part-time</b>           |  |
| No. of hours<br>Lecture: <b>14</b> Classes: <b>-</b> Laboratory: <b>12</b> Project/seminars: <b>16</b>  |  | No. of credits<br><b>6</b>   |
| Status of the course in the study program (Basic, major, other)<br><b>(brak)</b>  |  | (university-wide, from another field)<br><b>(brak)</b>   |
| Education areas and fields of science and art   |  | ECTS distribution (number and %)   |
| <b>Responsible for subject / lecturer:</b><br>dr inż. Agnieszka Grzelczak<br>email: agnieszka.grzelczak@put.poznan.pl<br>tel. 61 665 33 69<br>Faculty of Engineering Management<br>ul. Strzelecka 11 60-965 Poznań  |  | <b>Responsible for subject / lecturer:</b><br>dr inż. Agnieszka Grzelczak<br>email: agnieszka.grzelczak@put.poznan.pl<br>tel. 61 665 33 69<br>Faculty of Engineering Management<br>ul. Strzelecka 11 60-965 Poznań |
| <b>Prerequisites in terms of knowledge, skills and social competencies:</b>   |  |  |
| 1   | <b>Knowledge</b>   | Student has a fundamental knowledge in the field of process engineering, production and logistics organization   |
| 2   | <b>Skills</b>  | Student understands and is able to apply the parameters of manufacturing process and systems for designing of production structures.   |
| 3   | <b>Social competencies</b>   | Student understands and is prepared to manage production and services especially in the scope of designing of production systems? structures   |
| <b>Assumptions and objectives of the course:</b><br>-Students become familiar with methodology and technique applied for designing of production systems? structures and other management aspects   |  |  |
| <b>Study outcomes and reference to the educational results for a field of study</b>   |  |  |
| <b>Knowledge:</b>   |  |  |
| 1. He has a basic knowledge of computer science (information technology), economics and transportation, production management and services, production systems design (industrial design) - [K1A_W09]   |  |  |
| 2. He is able to explain the relationship between: IT (information technology), economics and organization of transport, production management and services, production systems design (industrial design) and logistics, supply chain management - [K1A_W10]   |  |  |
| 3. Student knows methods and tools for developing manufacturing structures - [K1A_W33]  |  |  |
| <b>Skills:</b>  |  |  |
| 1. He can independently develop a set, housed in the subject being studied issue - [T1A_U05]  |  |  |
| 2. He can be formulated using analytical methods, simulation or experimental located within the subject being studied design task and solve the task in the field of logistics and its specific issues (inventory management, logistics, distribution, logistics, manufacturing and sourcing, logistics service,) and supply chain management - [K1A_U09] |  |  |
| 3. He is able to select appropriate tools and methods to solve the problem of falling within the logistics and supply chain management as well as how to use them effectively - [T1A_U15]   |  |  |
| <b>Social competencies:</b>   |  |  |

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| 1. He is aware of the need for lifelong learning; inspire and organize the learning process of others in the coming within studied concerning issues - [K1A_K01] |
| 2. He is willing to cooperate and work in teams to resolve contained within the subject being studied problems - [K1A_K03]                                       |
| 3. He is able to see the cause-and-effect relationships in the implementation of the set objectives and importance rangować tasks - [K1A_K04]                    |
| 4. He is able to plan and manage in an entrepreneurial manner - [K1A_K06]  |

| <b>Assessment methods of study outcomes</b>   |                             |             |
|---|-----------------------------|-------------|
| -Written exam, final test, project, presentations   |                             |             |
| <b>Course description</b>   |                             |             |
| -Enterprises as manufacturing system. Production structure, fundamentals of its model ling. Plant specialization. Similarity and stabilization of production. Types and forms of production organization. Criteria of system optimization. Algorithm for design and reconstruction of manufacturing structures. Technical development of production units with usage of software support. Design of production units layout and surface arrangement. New trends in the field of service and operations management |                             |             |
| <b>Basic bibliography:</b>  |                             |             |
| 1. Brzeziński M. (red.), Organizacja i sterowanie produkcją, AW Placet, Warszawa, 2002.   |                             |             |
| 2. Durlik I., Inżynieria zarządzania, AMP WN, Katowice, 1993.   |                             |             |
| 3. Mazurczak J., Projektowanie struktur systemów produkcyjnych, WPP, Poznań, 2001.  |                             |             |
| 4. Muhlemann A., Oakland J., Lockyer K., Zarządzanie. Produkcja i usługi, PWN , Warszawa, 2001.   |                             |             |
| 5. Senger Z., Sterowanie przepływem produkcji, WPP, Poznań, 1998.   |                             |             |
| <b>Additional bibliography:</b>   |                             |             |
| 1. Głowacka-Fertsch D., Fertsch M., Zarządzanie produkcją, WSL, Poznań, 2004.   |                             |             |
| 2. Liwowski B., Kozłowski R., Podstawowe zagadnienia zarządzania produkcją, Oficyna Ekonomiczna, Kraków, 2006.  |                             |             |
| 3. Pająk E., Zarządzanie produkcją. Produkt, technologia, organizacja, PWN, Warszawa, 2006.   |                             |             |
| <b>Result of average student's workload</b>   |                             |             |
| <b>Activity</b>   | <b>Time (working hours)</b> |             |
| 1. Participation in lectures  | 30                          |             |
| 2. Participation in laboratories and projects   | 30                          |             |
| 3. Literature studiem   | 30                          |             |
| 4. Elaboration of project   | 10                          |             |
| 5. Preparation for exam   | 10                          |             |
| 6. Independent solving of tasks   | 20                          |             |
| <b>Student's workload</b>   |                             |             |
| <b>Source of workload</b>   | <b>hours</b>                | <b>ECTS</b> |
| Total workload  | 130                         | 6           |
| Contact hours   | 80                          | 4           |
| Practical activities  | 30                          | 2           |