

| <b>STUDY MODULE DESCRIPTION FORM</b>   |  |   |
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| Name of the module/subject<br><b>Industrial project</b>  |  | Code<br><b>1011101271011100503</b>  |
| Field of study<br><b>Engineering Management - Full-time studies -</b>  | Profile of study<br>(general academic, practical)<br><b>(brak)</b> | Year /Semester<br><b>4 / 7</b>  |
| Elective path/specialty<br><b>-</b>  | Subject offered in:<br><b>Polish</b>                               | Course (compulsory, elective)<br><b>elective</b>  |
| Cycle of study:<br><b>First-cycle studies</b>  | Form of study (full-time, part-time)<br><b>full-time</b>           |   |
| No. of hours<br>Lecture: - Classes: - Laboratory: - Project/seminars: <b>180</b>   |  | No. of credits<br><b>3</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<br><b>technical sciences</b><br><b>Technical sciences</b>  |  | ECTS distribution (number and %)<br><b>3 100%</b><br><b>3 100%</b>  |
| <b>Responsible for subject / lecturer:</b><br><br>tutor of the diploma thesis<br>email: imie.nazwisko@put.poznan.pl,<br>tel. (61) 665 3374<br>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>   | Knowledge from the range of courses enclosed in the educational standard for the first-cycle study on Engineering Management.   |
| 2  | <b>Skills</b>  | Skills obtained during the educational process from the range of courses enclosed in the educational standard for the first-cycle study on Engineering Management.      |
| 3  | <b>Social competencies</b>   | Competences obtained during the educational process from the range of courses enclosed in the educational standard for the first-cycle study on Engineering Management. |
| <b>Assumptions and objectives of the course:</b><br>The course is aimed at valorization of the knowledge obtained during studies necessary for analyzing processes in major functional subsystems of the enterprise or institution and for designing necessary changes of these processes. |  |   |
| <b>Study outcomes and reference to the educational results for a field of study</b>  |  |   |
| <b>Knowledge:</b>  |  |   |
| 1. Has basic knowledge about the life cycle of socio-technical systems - [K1A_W23]   |  |   |
| 2. Knows basic methods, techniques, tools and materials used in solving simple engineering tasks in the field of machine construction and operation - [K1A_W24]  |  |   |
| 3. Has basic knowledge necessary to understand non-technical conditions of engineering activities; knows the basic principles of health and safety at work in the machine building industry - [K1A_W25]  |  |   |
| 4. Knows typical industrial technologies and knows in a deep way the technologies of construction and operation of machines - [K1A_W27]  |  |   |
| 5. knows methods and instruments for designing organizational structures of management - [K1A_W10]   |  |   |
| <b>Skills:</b>   |  |   |

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| <p>1. Is able to plan and carry out experiments, including computer measurements and simulations, interpret the obtained results and draw conclusions - [K1A_U12]</p> <p>2. Can use analytical, simulation and experimental methods to formulate and solve engineering tasks - [K1A_U13]</p> <p>3. Can - when formulating and solving engineering tasks? recognize their systemic, socio-technical, organizational and economic and non-technical aspects - [K1A_U14]</p> <p>4. Can make a preliminary economic analysis of engineering activities - [K1A_U15]</p> <p>5. Is able to make a critical analysis of technological processes of machine production and organization of production systems - [K1A_U16]</p> <p>6. Is able to identify project tasks and solve simple design tasks in the field of machine construction and operation - [K1A_U17]</p> <p>7. Can apply typical methods of solving simple problems in the field of construction and operation of machines - [K1A_U18]</p> <p>8. Can design the construction and technology of simple parts and subassemblies of machines and design the organization of production units of the first degree of complexity - [K1A_U19]</p> <p>9. Is able to plan and carry out experiments, including computer measurements and simulations, interpret the obtained results and draw conclusions - [K01-InzA_U1]</p> |
| <p><b>Social competencies:</b></p> <p>1. is responsible for own work and ready to work in a team - [K1A_K02]</p> <p>2. Recognizes causal relationships in achieving the set goals - [K1A_K03]</p> <p>3. Is prepared to implement business ventures using the system approach including technical, economic, marketing, legal, organizational and financial aspects - [K1A_K07, K01-InzA_K2]</p> <p>4. understands non-technical aspects and results of the engineer activity - [K01-InzA_K1]</p> <p>5. Is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the related responsibility for decisions - [K1A_K08]</p> <p>6. Is aware that creating products that meet the needs of users requires a systemic approach with regard to technical, economic, marketing, legal, organizational and financial issues - [K1A_K09]</p>   |

| <b>Assessment methods of study outcomes</b>  |                      |      |
|--|----------------------|------|
| <p>Forming assessment:<br/>                 Current evaluation of suggestions for organizational changes presented by the tutor of the diploma thesis.</p> <p>Final assessment:<br/>                 Evaluation of the presentation prepared by the student, progresses of the research on the thesis and discussion of it.</p>              |                      |      |
| <b>Course description</b>  |                      |      |
| <p>Analysis of processes / systems: development and launch of the product on the market, marketing and sales, operation control, economic control of the enterprise, human resources management. man - work environment. Design for changes of selected processes / systems. The concept of a process-oriented organizational structure.</p> |                      |      |
| <b>Basic bibliography:</b>   |                      |      |
| 1. consistent with the topic   |                      |      |
| <b>Additional bibliography:</b>  |                      |      |
| 1. consistent with the topic   |                      |      |
| <b>Result of average student's workload</b>  |                      |      |
| Activity   | Time (working hours) |      |
| 1. Preparation of the industrial project   | 15                   |      |
| 2. student's own work  | 160                  |      |
| 3. Presentation and final assessment   | 5                    |      |
| <b>Student's workload</b>  |                      |      |
| Source of workload   | hours                | ECTS |
| Total workload   | 180                  | 3    |
| Contact hours  | 5                    | 0    |
| Practical activities   | 175                  | 3    |