

| STUDY MODULE DESCRIPTION FORM | | |
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| Name of the module/subject Proseminar | | Code 1010621221010624114 |
| Field of study Transport | Profile of study (general academic, practical) (brak) | Year /Semester 1 / 2 |
| Elective path/specialty Aircraft Transport | Subject offered in: Polish | Course (compulsory, elective) obligatory |
| Cycle of study: Second-cycle studies | Form of study (full-time, part-time) full-time | |
| No. of hours Lecture: 1 Classes: - Laboratory: - Project/seminars: - | | No. of credits 1 |
| Status of the course in the study program (Basic, major, other) (brak) | | (university-wide, from another field) (brak) |
| Education areas and fields of science and art technical sciences | | ECTS distribution (number and %) 1 100% |
| Responsible for subject / lecturer: Jacek Pielecha, D.Sc.Eng email: jacek.pielecha@put.poznan.pl tel. (061) 665-2118 Faculty of Machines and Transport 3 Piotrowo street, 60-965 Poznan, Poland | | |
| Prerequisites in terms of knowledge, skills and social competencies: | | |
| 1 | Knowledge | Has a wide knowledge in environmental issues |
| 2 | Skills | Is able to use various sources of information, including foreign languages. He can edit the text of the technical |
| 3 | Social competencies | Is independent in solving problems, acquiring and improving their knowledge and skills |
| Assumptions and objectives of the course: The introduction of student in the issues of scientific methodology. Familiarize students with the process of thesis writing and its proper development of the editorial | | |
| Study outcomes and reference to the educational results for a field of study | | |
| Knowledge: | | |
| 1. Knows the techniques to support the development of experimental results and their presentation as well as supporting the creation of various types of scientific publications - [-] | | |
| 2. Knows the planning principles of active and passive experimental research, develop research results and to determine their accuracy - [-] | | |
| 3. Knows and understands the basic concepts of copyright law, it can use the resources of patent information - [-] | | |
| Skills: | | |
| 1. Is able to obtain information from literature, databases and other sources, develop and interpret them creatively, and then pull requests - [-] | | |
| 2. Is able to plan a scientific experiment - [-] | | |
| 3. Is able use computer programs to solve problems and editing of technical texts - [-] | | |
| Social competencies: | | |
| 1. Understands the need for learning throughout life - [-] | | |
| 2. Is aware of and understands the validity of the non-technical aspects and effects of engineering activities, including its impact on the environment and the associated responsibility for decisions - [-] | | |
| 3. Is aware behavior in a professional manner and the need to respect the rules of professional ethics - [-] | | |
| Assessment methods of study outcomes | | |

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| Discussion, combined with the merits of the exemplary embodiments master's theses. Rating sample test experiment. To pass this subject, the student must write about realized research with basic information about the Master thesis | | |
| Course description | | |
| Structure of master thesis, a method for analyzing the literature to determine the state of knowledge in the issue of a recognized subject of work , the formulation of the research problem (essential also work) , the presentation of research methodology (analytical , experimental) and their results, formulation of findings and conclusions . Quoting foreign studies . Overview (sequentially) implemented theses : the referring shall demonstrate knowledge of the latest developments in the field of science and technology (national and foreign publications) . General discussion on the topic of this work and accepted way of its implementation. General characteristics of the thesis. Formal requirements and editorial thesis. Structure and types of dissertations. Selection of literature. Development of source materials and links. Develop a plan of work. Subject , purpose timetable for implementation. The development of the research program. Model tests. Experimental studies . Simulation studies . Optimization and verification of test results. Preliminary reporting to work. Discussion of current performance. Draw conclusions . Second referencing work. Subject , the ultimate goal , the scope of work. Talk students. Notes to editors . The final presentation of the work. Preparation and development of guidelines for the thesis defense . Examination diploma seminar . | | |
| Basic bibliography: | | |
| 1. Leszek W., Badania empiryczne, wyd. ITE, Radom 1997 2. Majchrzak J., Mendel T., Metodyka pisania prac magisterskich i dyplomowych. Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2005 3. Pułło A., Prace magisterskie i licencjackie. PWN, Warszawa 2000 | | |
| Additional bibliography: | | |
| 1. Leszek W. Nieempiryczne procedury badawcze w naukach przyrodniczych i technicznych. 2. . Polański Z., Planowanie doświadczeń w technice. PWN, Warszawa | | |
| Result of average student's workload | | |
| Activity | Time (working hours) | |
| 1. Preparation for lectures | 1 | |
| 2. Participation in lectures | 15 | |
| 3. Learning of lectures content | 7 | |
| 4. Office hours | 1 | |
| 5. Preparation for test | 5 | |
| 6. Participation in test | 1 | |
| Student's workload | | |
| Source of workload | hours | ECTS |
| Total workload | 30 | 1 |
| Contact hours | 17 | 1 |
| Practical activities | 13 | 0 |