

| STUDY MODULE DESCRIPTION FORM | | |
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| Name of the module/subject Diploma Seminar | | Code 1010624181010620467 |
| Field of study Mechanical Engineering | Profile of study (general academic, practical) (brak) | Year /Semester 4 / 8 |
| Elective path/specialty Internal Combustion Engines | Subject offered in: Polish | Course (compulsory, elective) obligatory |
| Cycle of study: First-cycle studies | Form of study (full-time,part-time) part-time | |
| No. of hours Lecture: - Classes: - Laboratory: - Project/seminars: 18 | | No. of credits 15 |
| 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 %) 15 100% |
| Responsible for subject / lecturer: Prof. dr hab. inż. Antoni Iskra email: antoni.iskra@put.poznan.pl tel. 61 665 2511 Wydział Maszyn Roboczych i Transportu ul. Piotrowo 3, 60-965 Poznań | | |
| Prerequisites in terms of knowledge, skills and social competencies: | | |
| 1 | Knowledge | The student has knowledge about combustion engines design, operation and testing |
| 2 | Skills | The student can independently use various sources of information also in foreign languages. Has the ability of editing technical text. |
| 3 | Social competencies | Shows independence in solving basic engineering problems. |
| Assumptions and objectives of the course: To acquaint a student with consecutive stages of engineering thesis and its correct editing preparation | | |
| Study outcomes and reference to the educational results for a field of study | | |
| Knowledge: | | |
| 1. Has basic knowledge about planning simple research experiment, results elaboration and their analysis - [W14] 2. Knows and understands basic copyright law notions. Is able to use patent information sources - [W22] 3. Has knowledge connected with engine design, operation and ecological aspects - [W24] | | |
| Skills: | | |
| 1. Is able to gain information from scientific literature, the internet and other sources, knows how to integrate, interpret acquired information, and reach conclusions - [U03] 2. Is able to prepare technical documentation of an engineering - [U04] 3. Is able to prepare and present an oral and multimedia presentation - [U05] | | |
| Social competencies: | | |
| 1. Is aware of the necessity of life-long learning - [K01] 2. Understands the significance of engineering knowledge and performance for the development of society, appreciates social determination of technical projects - [K02] 3. Is aware and follows the necessity of professional ethics - [K03] | | |
| Assessment methods of study outcomes | | |

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| Discussion and evaluation of engineering thesis realization during oral presentation. Credit on the basis of elaboration including engineering thesis basics and its realization. | | |
| Course description | | |
| Engineering thesis realization process (genesis, preparation, bibliography). Thesis elaboration (general requirements, ethic issues). Experiment theory basics (research planning, research model construction, results analysis). Supervisor's role during thesis realization. Thesis evaluation principles. | | |
| 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. Pułko A., Prace magisterskie i licencjackie. PWN, Warszawa 2000. | | |
| 4. Korzyński M., Metodyka eksperymentu. Wydawnictwo NT, Warszawa 2006. | | |
| 5. Szkutnik Z., Metodyka pisania pracy dyplomowej. Wyd. Poznańskie, ISBN 8371773714, 2005 | | |
| Additional bibliography: | | |
| 1. Leszek W. Nieempiryczne procedury badawcze w naukach przyrodniczych i technicznych. Wydawnictwo ITE, Radom 1999. | | |
| 2. Polański Z., Planowanie doświadczeń w technice. PWN, Warszawa | | |
| Result of average student's workload | | |
| Activity | Time (working hours) | |
| 1. Preparation for the lecture | 1 | |
| 2. Participation in the lecture | 30 | |
| 3. Project preparation | 7 | |
| 4. Consultations | 1 | |
| 5. Preparation for project presentation | 5 | |
| 6. Project presentation | 1 | |
| Student's workload | | |
| Source of workload | hours | ECTS |
| Total workload | 41 | 15 |
| Contact hours | 33 | 1 |
| Practical activities | 41 | 1 |