

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Diploma Seminar		Code 1010622231010620467
Field of study Mechanical Engineering	Profile of study (general academic, practical) general academic	Year /Semester 2 / 3
Elective path/specialty Internal Combustion Engines	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: - Classes: - Laboratory: - Project/seminars: 1		No. of credits 20
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 technical sciences Technical sciences		ECTS distribution (number and %) 20 100% 20 100%
Responsible for subject / lecturer: Prof. DSc. DEng. Ireneusz Pielecha email: ireneusz.pielecha@put.poznan.pl tel. 61 224 45 02 Faculty of Transport Engineering 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 the consecutive stages of Master's thesis and its correct preparation for editing.		
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, reach conclusions - [U03]		
2. Is able to prepare technical documentation of an engineering problem - [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		

Discussion and evaluation of Master's thesis realization during oral presentation. Credit on the basis of elaboration including Master's thesis basics and its realization.		
Course description		
Master's 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. Pułło 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	15	
3. Project preparation	5	
4. Consultations	2	
5. Preparation for project presentation	2	
6. Project presentation	1	
Student's workload		
Source of workload	hours	ECTS
Total workload	250	20
Contact hours	50	2
Practical activities	200	18