

<b>STUDY MODULE DESCRIPTION FORM</b>		
Name of the module/subject <b>Diploma Seminar</b>		Code <b>1010622231010620467</b>
Field of study <b>Mechanical Engineering</b>	Profile of study (general academic, practical) <b>(brak)</b>	Year /Semester <b>2 / 3</b>
Elective path/specialty <b>Internal Combustion Engines</b>	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>obligatory</b>
Cycle of study: <b>Second-cycle studies</b>	Form of study (full-time, part-time) <b>full-time</b>	
No. of hours Lecture: - Classes: - Laboratory: - Project/seminars: <b>1</b>		No. of credits <b>20</b>
Status of the course in the study program (Basic, major, other) <b>(brak)</b>		(university-wide, from another field) <b>(brak)</b>
Education areas and fields of science and art <b>technical sciences</b>		ECTS distribution (number and %) <b>20 100%</b>
<b>Responsible for subject / lecturer:</b>  DSc. DEng. Ireneusz Pielecha email: ireneusz.pielecha@put.poznan.pl tel. 61 224 45 02 Wydział Maszyn Roboczych i Transportu ul. Piotrowo 3, 60-965 Poznań		
<b>Prerequisites in terms of knowledge, skills and social competencies:</b>		
1	<b>Knowledge</b>	The student has knowledge about combustion engines design, operation and testing
2	<b>Skills</b>	The student can independently use various sources of information also in foreign languages. Has the ability of editing technical text.
3	<b>Social competencies</b>	Shows independence in solving basic engineering problems.
<b>Assumptions and objectives of the course:</b> To acquaint a student with the consecutive stages of Master's thesis and its correct preparation for editing.		
<b>Study outcomes and reference to the educational results for a field of study</b>		
<b>Knowledge:</b>		
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]		
<b>Skills:</b>		
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]		
<b>Social competencies:</b>		
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]		
<b>Assessment methods of study outcomes</b>		

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.		
<b>Course description</b>		
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.		
<b>Basic bibliography:</b>		
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		
<b>Additional bibliography:</b>		
1. Leszek W. Nieempiryczne procedury badawcze w naukach przyrodniczych i technicznych. Wydawnictwo ITE, Radom 1999.		
2. Polański Z., Planowanie doświadczeń w technice. PWN, Warszawa		
<b>Result of average student's workload</b>		
<b>Activity</b>	<b>Time (working hours)</b>	
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	
<b>Student's workload</b>		
<b>Source of workload</b>	<b>hours</b>	<b>ECTS</b>
Total workload	26	1
Contact hours	18	1
Practical activities	26	1