

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Proseminar		Code 1010642121010644114
Field of study Mechanical Engineering	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty Mechatronics	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: dr hab. inż. Ireneusz Malujda email: Ireneusz.Malujda@put.poznan.pl tel. 61 665-2244 Wydział Maszyn Roboczych i Transportu ul. Piotrowo 3, 60-965 Poznań		Responsible for subject / lecturer: prof.dr hab. inż. Janusz Mielniczuk email: janusz.mielniczuk@put.poznan.pl tel. 61 665-2335 Wydział Maszyn Roboczych i Transportu ul. Piotrowo 3, 60-965 Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Fundamentals of machine design. Construction and operation of machines. General knowledge of general and specialization subjects.
2	Skills	Basics of computer operation and MS Office. The student has the ability to acquire information from the indicated sources.
3	Social competencies	The student understands the need to expand their competences, shows a willingness to cooperate within the team.
Assumptions and objectives of the course: To familiarize students with the basic assumptions of the methodology of science. Preparing to execute the thesis.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Knows the typical components of a construction work, or technological - [K1A_W22] 2. Knows the rules of copyright law. - [K1A_W22] 3. Knows the principles of editing the thesis and articles of scientific and technical - [K1A_W22]		
Skills:		
1. Is able to look for information on a given topic - [K1A_U03] 2. Is able to prepare the development of a design or technology, is able to create a thesis and scientific-technical article. - [K1A_U04] 3. Is able to prepare and present a short verbal presentation on a given topic. - [K1A_U05]		
Social competencies:		
1. Understands the need and knows the possibilities of lifelong learning. - [K1A_K01] 2. Is aware of and understands the importance and impact of non-technical aspects of mechanical engineering activities and its impact on the environment and responsibility for own decisions. - [K1A_K02] 3. Is aware of the importance of behavior in a professional manner, compliance with the rules of professional ethics and respect for cultural diversity. - [K1A_K03] 4. Has a sense of responsibility for one's own work and is willing to comply with the principles of teamwork and taking responsibility for collaborative tasks. - [K1A_K04]		

Assessment methods of study outcomes		
Completion of the course is based on a presentation, individually performed by the student.		
Course description		
Origins of theses topics, the role of the promoter. Sources of scientific and technical information and ways to use them. Formulating hypotheses. Models and modeling. Elements of scientific language: regularities, laws, theories, principles. The structure of the thesis. The technique of writing research papers, editorial rules. Preparation for the final exam.		
Basic bibliography:		
1. Majchrzak J., Mendel T., <i>Metodyka pisania prac magisterskich i dyplomowych</i> . Wydawnictwo AE w Poznaniu, Poznań 2005 2. Pułło A., <i>Prace magisterskie i licencjackie</i> . PWN, Warszawa 2000. 3. Boć J., <i>Jak pisać pracę magisterską</i> , Wyd. Kolonia, Wrocław 2003 4. Oliver P., <i>Jak pisać prace uniwersyteckie</i> , Wyd. Literackie, Kraków 1999 5. Pieter J., <i>Ogólna metodologia pracy naukowej</i> , Ossolineum, Wrocław 1967 6. Szkutnik Z., <i>Metodyka pisania pracy dyplomowej</i> , Wyd. Poznańskie, Poznań 2005 7. Żółtowski B., <i>Seminarium dyplomowe; zasady pisania prac dyplomowych</i> , Wyd. ATR, Bydgoszcz 1997		
Additional bibliography:		
1. Tarnowski W., <i>Podstawy projektowania technicznego</i> , WNT, Warszawa 1997 2. Orczyk J., <i>Zarys metodyki pracy umysłowej</i> , PWN, Warszawa 1988 3. G. Pahl, W. Beitz: <i>Nauka Konstruowania</i> . WNT 1984 4. Dietrich J., <i>System i konstrukcja</i> , WNT, Warszawa 1978		
Result of average student's workload		
Activity	Time (working hours)	
1. Lectures	15	
2. Consultations	9	
3. Preparation to the presentation	5	
4. Presentation	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	31	1
Contact hours	21	1
Practical activities	0	0