

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Technology of informatics		Code x
Field of study Environmental Protection Technologies	Profile of study (general academic, practical) general academic	Year /Semester 1 / 1
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: - Classes: - Laboratory: - Project/seminars: 30		No. of credits 3
Status of the course in the study program (Basic, major, other) basic		(university-wide, from another field) university-wide
Education areas and fields of science and art the sciences		ECTS distribution (number and %) 3 100%
Responsible for subject / lecturer: Dr inż Maciej Staszak e-mail: maciej.staszak@put.poznan.pl tel. 061 665 3758 Faculty of Chemical Technology pl. M. Skłodowskiej-Curie 5, 60-965 Poznań tel.: 061 665 3758		Responsible for subject / lecturer: Dr inż Maciej Staszak e-mail: maciej.staszak@put.poznan.pl tel. 061 665 3758 Faculty of Chemical Technology pl. M. Skłodowskiej-Curie 5, 60-965 Poznań tel.: 061 665 3758
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Basic knowledge about computer.
2	Skills	Basic skill of computer usage.
3	Social competencies	Awareness of significance of computer in nowadays world..
Assumptions and objectives of the course: To acquaint students with advanced problems related to the use of software with particular emphasis on engineering applications. In the design classes, students are to acquire skills and competences related to the use of basic and advanced functions of computational tools and CAE design support tools.		
Study outcomes		Reference to the educational results for a field of study
Knowledge: The graduate knows the principles of environmental protection related to chemical production and waste management		K_W05
Skills: The graduate can obtain necessary information from literature, databases and other sources related to chemical sciences, interpret them properly, draw conclusions, formulate and justify opinions. The graduate can work both individually and in a team environment in a professional and other environment. The graduate can prepare and present an oral presentation in the field of chemical technology in both Polish and a foreign language. The graduate uses computer programs assisting the implementation of typical tasks in environmental protection technologies.		K_U01 K_U02 K_U04 K_U07
Social competencies: The graduate can cooperate and work in a group, accepting various roles in it		K_K03

Assessment methods of study outcomes		
Project: Assessment based on colloquiums in project classes.		
Course description		
Mastering the operation of tools used to conduct mathematical calculations. Tool: Mathcad		
Basic bibliography:		
1. Podstawy technik informatycznych i komunikacyjnych / Witold Sikorski. Autor: Sikorski, Witold. Wydawnictwo Naukowe PWN: Mikom, 2009.		
2. Technologia informacyjna / Jae K. Shim, Joel G. Siegel, Robert Chi ; przeł. [z jęz. ang.] Adam Oracz. Autor: Shim, Jae K., Siegel, Joel G., Chi, Robert., Oracz, Adam . Tł. Dom Wydawniczy ABC, 1999.		
3. Technologie informacyjne - przykłady zastosowań: materiały do wykładów / Marek Cieciora. Autor: Cieciora, Marek. Vizja Press & It, 2007.		
4. Technologie informatyczne i ich zastosowania / pod red. Aleksandra Jastriebowa. Autor: Jastriebow, Aleksander. Red. Politechnika Radomska im. Kazimierza Pułaskiego: Instytut Technologii Eksploatacji - Państwowy Instytut Badawczy, cop. 2010.		
5. Mathcad 12, 11, 2001i, 2001, 2000 w algorytmach / Witold Paleczek. Autor: Paleczek, Witold. Akademicka Oficyna Wydawnicza Exit, 2005.		
Additional bibliography:		
1. Mikrospołeczność informacyjna: na przykładzie miasteczka internetowego Akademii Górniczo-Hutniczej w Krakowie / pod red. Lesława H. Habera. Autor: Haber, Lesław Henryk. Red. Uczelniane Wydawnictwa Naukowo-Dydaktyczne AGH, 2001.		
2. Problemy społeczeństwa informacyjnego: elementy analizy, ewaluacji i prognozy / Lech W. Zacher (red. nauk.) ; [tł. tekstów aut. zagranicznych wykonali: Jacek F. Mączyński, Agnieszka Pawłowska, Lech W. Zacher]. Wyższa Szkoła Przedsiębiorczości i Zarządzania		
3. Społeczeństwo informacyjne: szanse, zagrożenia, wyzwania / Tomasz Goban-Klas, Piotr Sienkiewicz. Autor: Goban-Klas, Tomasz., Sienkiewicz, Piotr. Wydaw. Fundacji Postępu Telekomunikacji, 1999.		
Result of average student's workload		
Activity	Time (working hours)	
1. Preparation for projects	15	
2. Participation in design classes	30	
3. Participation in consultations	10	
4. Preparation for the colloquium	20	
Student's workload		
Source of workload	hours	ECTS
Total workload	75	3
Contact hours	40	2
Practical activities	35	1