		STUDY MODULE D	ESCRIPTION FORM	
NA - 11	f the module/subject		-	
	nematics I			010331211010342117
Field of	study		Profile of study (general academic, practical)	Year /Semester
Auto	omatic Control a	nd Robotics	(brak)	1/1
Elective	e path/specialty	-	Subject offered in: <b>Polish</b>	Course (compulsory, elective) obligatory
Cycle of	f study:		Form of study (full-time,part-time)	
First-cycle studies			full-time	
No. of h	iours			No. of credits
Lectur	re: 60 Classes	s: 30 Laboratory: -	Project/seminars:	8
Status c	of the course in the study	program (Basic, major, other)	(university-wide, from another field	i)
		(brak)	(b	rak)
Education areas and fields of science and art				ECTS distribution (number and %)
techr	nical sciences			8 100%
ema tel. ( Wyd	Viesława Nowakowska ail: wieslawa.nowakow 616652320 dział Elektryczny Piotrowo 3A 60-965 Po	ska@put.poznan.pl		
		is of knowledge, skills an	d social competencies:	
4	Knowledge	Basic knowledge with range of s	econdary school.	
1	-		-	
	Skills	Student is able to meet the chall	enges arising from the high schoo	ol
2	Social	Student understands the need a		ng (postgraduate courses,
2 3	Social competencies	Student understands the need a second-degree studies), improv	enges arising from the high schoo nd knows the possibility of studyir	ng (postgraduate courses,
2 3 <b>Assu</b> The rec	Social competencies mptions and obj	Student understands the need a second-degree studies), improvectives of the course: d applications of differential and ir	enges arising from the high schoo nd knows the possibility of studyir ing language skills, professional,	ng (postgraduate courses, personal and social skills.
2 3 <b>Assu</b> The rec	Social competencies mptions and obj cognizing methods an applications of multiply	Student understands the need a second-degree studies), improvectives of the course: d applications of differential and ir	enges arising from the high schoo nd knows the possibility of studyir ing language skills, professional, ntegral calculus of functions of sin	ng (postgraduate courses, personal and social skills. gle variable. The getting to
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## Assessment methods of study outcomes

Lectures: written exam checking theoretic knowledge and ability it application in practical exercises. Classes: tests during the semester and colloquium

## **Course description** Differential and integral calculus of functions of single variable. Applications of integrals. Differential calculus of functions of several variables. Multiply integrals and their applications. Line integrals. Infinite series and power series. Basic bibliography: 1. G. Decewicz, W. Żakowski, Matematyka, t. I, WNT, Warszawa, 2003. 2. W. Żakowski, M. Kołodziej, Matematyka, t. II, WNT, Warszawa, 1994. 3. I. Foltyńska, Z. Ratajczak, Z. Szafrański, Matematyka, cz. I, II, III, Wyd. Politechniki Poznańskiej, Poznań, 2001. 4. F. Leja, Rachunek różniczkowy i całkowy, PWN, Warszawa, 1978. Additional bibliography: 1. Krysicki W., Włodarski L.: Analiza matematyczna w zadaniach. Część I, II, PWN, Warszawa, 2006. 2. Stankiewicz W.: Zadania z matematyki dla wyższych uczelni technicznych. Część I, II, PWN, Warszawa, 2006. 3. M. Gewert, Z. Skoczylas, Analiza matematyczna 1 i 2, Oficyna Wyd. GiS, Wrocław, 2006. Result of average student's workload Time (working Activity hours) 60 1. Lectures 2. Classes 30 3. Consultations and exam 7 60 4. Preparation for classes 5. Preparation for exam 33 Student's workload Source of workload ECTS hours 8 Total workload 190 Contact hours 97 4 60 3 Practical activities