	of the module/subiect			Code	
Numerical methods			1010324341010340026		
Field of	study		Profile of study (general academic, practical)	Year /Semester	
Elec	trical Engineerin	Ig	(brak)	2/4	
Elective path/specialty			Subject offered in: Polish	Course (compulsory, elective) obligatory	
Cycle of study:			Form of study (full-time,part-time)		
First-cycle studies			part-time		
No. of I	nours			No. of credits	
Lectu	re: 14 Classe	s: - Laboratory: 16	Project/seminars:	- 4	
Status	of the course in the study	program (Basic, major, other)	(university-wide, from another f	field)	
		(brak)		(brak)	
Education areas and fields of science and art technical sciences				ECTS distribution (number and %)	
				4 100%	
Mai em tel. Fac	rian Dondajewski ail: marian.dondajewsł tel. 616652805 culty of Electrical Engir	ki@put.poznan.pl			
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Assessment methods of study outcomes

Lectures:						
* Assess the knowledge and skills listed on the completion of the writing of a problematic (student may use any teaching materials),						
* Control of perception during lectures.						
Laboratory:						
* Test and favoring knowledge necessary to perform the tasks of laboratory						
* Continuous evaluation for each course - rewarding gain skills they met the principles and methods						
* Assess the knowledge and skills associated with the implementation of the tasks your practice, the assessment report performed exercise.						
Get extra points for the activity in the classroom, and in particular for:						
* Propose to discuss further aspects of the subject;						
* The effectiveness of the application of the knowledge gained during solving the	given problem;					
* Subsequent to the improvement of teaching materials;						
* Developed aesthetic diligence reports and jobs - in the self-study.						
Course description						
Floating point arithmetic, the numerical errors.						
Numerical stability and accuracy of task conditioning algorithms.						
Numerical solution of nonlinear equations.						
Function approximation.						
Numerical integration and differentiation.						
Numerical solution of ordinary differential equations of the first order with the initia	al condition - one-step	methods.				
The basic algorithms for numerical linear algebra problems.						
Basic bibliography:						
1. Magnucka-Blandzi, Metody numeryczne w MatLabie - Wybrane zagadniania.	Nydawnictwo Politechi	niki Poznańskiej 2013				
2. Kącki, Małolepszy, Romanowicz, Metody numeryczne dla inżynierów, Politech	nika Łódzka 2000					
3. Kincaid, Cheney, Analiza numeryczna, WNT 2005,						
4. Fortuna, Macukow, Wąsowski, Metody numeryczne, WNT,						
5. Burden, Faires ? Numerical analysis, Prindle, Weber&Schmidt, Bosto	n,					
Additional bibliography:						
1. Björck, Dahlquist, Metody numeryczne, PWN Warszawa,						
2. Marlewski, Podstawowe metody numeryczne dla studentów kierunków inżynierskich, ARTPRESS						
Result of average student's workload						
Activity	Time (working hours)					
Student's workload						
Source of workload	hours	ECTS				
Total workload	80	4				
Contact hours	40	2				
Practical activities	2					