		STUDY MODULE D	ESCRIPTION FORM			
	f the module/subject abricated structu	ires		Code 1010104191010114218		
Field of	study		Profile of study (general academic, practical)	Year /Semester		
Civil Engineering First-cycle Studies			general academic	5/9		
Elective path/specialty			Subject offered in:	Course (compulsory, elective)		
0 1 1		•	Polish	elective		
Cycle of study: First-cycle studies			Form of study (full-time,part-time) part-time			
No. of hours			-			
Lectur	10	Loborotorut -	Droiget/gamingrot	No. of credits		
		s: - Laboratory: - program (Basic, major, other)	Project/seminars: (university-wide, from another f	-		
Olaldo C		other		ersity-wide		
Educatio	on areas and fields of sci	ECTS distribution (number and %)				
techr	nical sciences			1 100%		
lecin	Technical scie	nces		1 100%		
				1 10070		
Resp	onsible for subje	ect / lecturer:	Responsible for subject	ct / lecturer:		
dr ir	iż. Jacek Ścigałło		dr inż. Jacek Ścigałło			
	il: jacek.scigallo@put	.poznan.pl	email: jacek.scigallo@put.poznan.pl			
	+48 061 665 2465 ulty of Civil and Envirc	nmental Engineering		tel. + 48 061 665 2465 Faculty of Civil and Environmental Engineering		
	785 Poznań, ul.Piotrov	5 5	60-785 Poznań, ul.Piotrow	<b>a b</b>		
Prere	quisites in term	s of knowledge, skills an	d social competencies:			
1	A student has the knowledge of general mechanics and strength of materials, basis of					
•	Thomeage	of reinforced concrete structures, knows analysis principles of simple and complex RC elements design. A student knows building standards and requirements concerning design of building structures and their elements.				
2	Skills	A student can estimate and report permanent and variable loads acting on building structures. Student can classify building structures, design RC structure elements and choose analytical or numerical solution of engineering problems.				
3	Social	A student understands the need	for lifelong learning and knows	how to interact in a group.		
	competencies					
		ectives of the course:				
		nd skills concerning design of RC s. Preparing for modeling of RC s				
	-	mes and reference to the	educational results for	a field of study		
	/ledge:					
		design method of RC slab eleme	-			
		sign issues of spatial RC structure e applying of computers program				
	08, K 2 W16 ]		nooded to analyse and design i			
Skills	:					
1. A student uses building standards of loads on building structures as well as in the static calculation and dimensioning of RC structures [K 2 W01, K 2 W02, K 2 W03, ]						
2. A student is able to design RC slab structures with taken frames into consideration - [K 2 W03, K 2 W13]						
Social competencies:           1. A student understands the need of lifelong learning, is able to organize the learning process of others						
[K 2 W02, K 2 W03] 2. A student is able to cooperate and work in a group - [K 2 W01, K 2 W06]						
3. He correctly identifies and resolves problems associated with his profession - [K 2 W07]						
ט. דוב נטודבנווין ועבוזמוובא מוט ובאטויבא אוטטובוווא מאטטומובט אומד זוא אוטופאטטוד - [ת 2 איטר]						

	Assessment methods	of study outcomes					
-Credit of exerc	ise classes						
Credit in written	form (1.0h)						
Credit of project	ts						
	dividual projects on the basis of calculations and s	structural drawings with a defe	nce of submitted work				
Number of eval		J					
[%]	(grade)						
100- 91	A excellent						
90-75							
74-65							
64-51	D sufficient						
< 50	E failed						
< 50	Course des	cription					
Form of teachi							
-Form of teaching: classes							
Method of designing and dimensioning RC slab structures especially two-way reinforced slabs Load report in two-way reinforced slabs							
Dimensioning of reinforced concrete slab structures to bending and shear ULS, SLS.							
Form of teachin	6	14 5110al 020, 020.					
	g. projects /ay reinforced slab						
Basic biblio	0 1 2						
1. PN-EN 1992-1-1 Eurokod 2. Projektowanie konstrukcji z betonu. Część 1-1: Reguły ogólne i reguły dla budynków.							
2. Ajdukiewicz A.: Eurokodu 2. Podręczny skrót dla projektantów konstrukcji żelbetowych.							
<ol><li>Starosolski W.: Konstrukcje żelbetowe według PN-B-03264:2002 i Eurokodu 2. PWN</li></ol>							
4. Knauff M.: Obliczanie konstrukcji żelbetowych według Eurokodu, PWN Warszawa 2012							
5. Knauff M., Go Warszawa 2013	olubińska A.: Tablice i wzory do projektowania kor 3	nstrukcji żelbetowych z przykła	dami obliczeń, PWN				
6. Łapko A., Jar	nsen B.C.: Podstawy projektowania i algorytmy ob	liczeń konstrukcji żelbetowych	n, Arkady, Warszawa 2005				
<ol><li>Rawska-Skot</li></ol>	tniczy A.: Obciążenia budynków i konstrukcji budo	wlanych według Eurokodów, F	PWN, Warszawa 2013.				
Additional b	bibliography:						
	rukcji Betonowych KILiW PAN Podstawy projekto Inośląskie Wydawnictwo Edukacyjne.	wania konstrukcji żelbetowych	i sprężonych według				
2. Mosley B., B	ungey J., Hulse R.: Reinforced concrete design to	Eurocode 2, Palgrave Macmil	lan New York 2009.				
	Result of average st	udent's workload					
	Time (working hours)						
1. Participation	in audience classes		10				
2. Participation	10						
3. Complete (at	10						
4. Participation	5						
	the final test of classes content	-	5				
·	Student's w	vorkload					
	Source of workload	hours	ECTS				
Totol worklast							
Total workload		40	1				
Contact hours		25	1				
Practical activiti	es	15	0				