

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Preparation for research		Code 1010115141010118606
Field of study Civil Engineering Extramural Second-cycle	Profile of study (general academic, practical) (brak)	Year /Semester 2 / 4
Elective path/specialty Structural Engineering	Subject offered in: Polish	Course (compulsory, elective) obligatory
Cycle of study: Second-cycle studies	Form of study (full-time,part-time) part-time	
No. of hours Lecture: - Classes: 10 Laboratory: - Project/seminars: -		No. of credits 16
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		ECTS distribution (number and %)
Responsible for subject / lecturer: dr hab. inż. Maciej Szumigala, prof. nadzw. email: maciej.szumigala@put.poznan.pl tel. 061 665 2401 Faculty of Civil and Environmental Engineering ul. Piotrowo 5 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Advanced knowledge of the strength of materials and mechanics of structures, metal structures, reinforced concrete structures, masonry structures, wood structures.
2	Skills	The ability to acquire information from all sources, prepare a full project documentation of various buildings.
3	Social competencies	Awareness of the need to broaden their skills and taking a major responsibility in their future careers.
Assumptions and objectives of the course: Gaining ability to broaden knowledge through reading the science and technology press, presentation of the acquired knowledge and the results of their own work in public, participation in public discussion.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Knows the principles of analysis, design and dimensioning elements of buildings - [K_W02] 2. Knows classification and scope of supporting computer programs .. - [K_W08] 3. Knows the technical conditions of designing buildings and their components - [K_W014]		
Skills:		
1. Can make the evaluation and ranking of any loads acting on buildings - [K_U01] 2. Can perform static, dynamic and stability analysis of buildings - [K_U04] 3. Can design elements and their connections in complex construction projects - [K_U03] 4. Can define a computer model of the structure and analyze it - [K_U06 K_U13]		
Social competencies:		
1. While realizing certain task can work independently and in a team - [K_K01] 2. Is responsible for the accuracy of the results of own work - [K_K02] 3. Complements and extends knowledge in the field of modern processes and technologies independently - [K_K03]		
Assessment methods of study outcomes		
The method of preparation of the graduate work (diploma thesis) is evaluated by the supervisor and the assessment shall be included in the grade transcript before the final exam.		

Course description		
Consistent with the theme of own graduate work (diploma thesis).		
Basic bibliography:		
1. Construction standards and guides and manuals construction and building		
Additional bibliography:		
1. Scientific - technical magazines		
Result of average student's workload		
Activity	Time (working hours)	
Student's workload		
Source of workload	hours	ECTS
Total workload	390	16
Contact hours	15	1
Practical activities	375	15