STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Computer Aided Structural Design**		Code **1010101231010130660**	
Field of study **Environmental Engineering First-cycle Studies**	Profile of study (general academic, practical) **(brak)**	Year /Semester **2 / 3**	
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				No. of credits **3**
Lecture: **15**	Classes: **-**	Laboratory: **15**	Project/seminars: **-**	

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
 	
technical sciences
          Technical sciences
	ECTS distribution (number and %**)**
	
	3 100%
	          3 100%

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Knowledge about Excel, level intermediate.
2	**Skills**	Ability to work with personal computer, including Excel.
3	**Social competencies**	Awareness of the need to continually update and supplement one's knowledge and skills.

Assumptions and objectives of the course:

Familiarize students with advanced Excel, in particular with the VBA addition.

Study outcomes and reference to the educational results for a field of study

Knowledge:

1. Student has basic programming skills concerning Visual Basic - [K_W07]

2. Student knows how to create and use macros in Excel - [K_W07]

3. Student knows how to create and use interactive formants - [K_W07]

4. Students knows the basics of programming in VBA extension for Excel - [K_W07]

Skills:

1. Basic programming skills in Visual Basic - [K_U02, K_U07, K_U09]

2. The student can write user functions in Excel VBA - [K_U02, K_U07, K_U09]

3. Student is able to create forms and interactive elements in Excel spreadsheet - [K_U02, K_U07, K_U09]

Social competencies:

1. The student is aware of the value of information and knowledge - [[K_K07]

Assessment methods of study outcomes

Podstawowy sposób sprawdzania efektów kształcenia: w ramach wykładu sprawdzian pisemny - test wielokrotnego wyboru przeprowadzany na ostatnich zajęciach, w ramach ćwiczeń laboratoryjnych ? kolokwium na ostatnich zajęciach.

Faculty of Civil and Environmental Engineering

Course description
Basic method for checking the effects of education: (lecture) multiple choice test performed on the last class, (laboratory exercises) ability test performed on the last class.

Basic bibliography:

1. John Walkenbach, Excel 2013 PL. Programowanie w VBA dla bystrzaków. Wydawnictwo Helion.

2. John Walkenbach, Excel 2013 PL. Programowanie w VBA. Vademecum Walkenbacha. Wydawnictwo Helion.

Additional bibliography:

Result of average student's workload	
Activity	**Time (working hours)**
1. Lectures	15
2. Laboratory classes	15
3. Preparation for laboratory classes	10
4. Preparation for final tests	5

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	45	3
Contact hours	30	3
Practical activities	15	1