STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Soil Mechanics		**1010101131010120637**
Field of study	Profile of study (general academic, practical)	Year /Semester
Civil Engineering First-cycle Studies	**(brak)**	**2 / 3**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
-	**Polish**	**obligatory**
Cycle of study:	Form of study (full-time,part-time)	
First-cycle studies	**full-time**	
No. of hours		No. of credits
Lecture: **15** Classes: **-** Laboratory: **30** Project/seminars: **-**		**5**
Status of the course in the study program (Basic, major, other)	(university-wide, from another field)	
(brak)	**(brak)**	
Education areas and fields of science and art		ECTS distribution (number and %)
technical sciences		**5 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	The full range of knowledge in mathematics and physics included in the program of high school. The full range of knowledge covered by the program semseter 1 and 2 studies in building bonstruction.
2	**Skills**	Student: - can perform static analysis of bar structures statically detereminate; - can correctly select the tools to solve problems of analysis and design building objects; - knows how to dimension the basic structural elements in buildings.
3	**Social competencies**	Student: - can work independently and work together as a team over the designated task; - he is responsiblefor the accuracy of the results of their work and their interpretation; - isolated complements and extends the knowledge in modern techniques,processes and technologies.

Assumptions and objectives of the course:

Achieving basic level of knowledge of soil mechanics, responsible for I degree studies in building construction.

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

Knowledge:

1. Is acquainted with construction law, national norms and EN standards and technical conditionsfor astructure construction - [K_W06]
2. Knows geology fundamentals,soil mechanisc and foundations construction structures - [K_W08]
3. Knows rules related to the design and analysis of residential, industraial, road,railroad and bridge structures - [K_W09]

Skills:

1. Can evaluate and list loads acting on structures - [K_U02]
2. Can appropriately define computional models used for the structur analysis - [K_U03]
3. Can carry out simple laboratory experiments in order to evaluate the quality of construction materials and engineering stuctures - [K_U13]

Social competencies:

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1. Can work on a problem individually and in a team - [K_K01]
2. Is aware of own health and fitness - [K_K04]
3. Is aware of the necessity to advance professional and personal competencies - [K_K06]

Assessment methods of study outcomes
- written exam (5 qustions, 25 points available, 13 points required to pass the exam)
- written and oral tests as partof continuons assessment
- execution of the development of containing of interpreting results laboratory tests characteristics of subsoil
- execution of the development of containing the results of calculations of stress in the subsolil
Course description
- accesc to geotechnics
- gentic of ground
- geotechnical characteristics of ground
- classification of ground in accorodance with the contetnt of PN and PN-EN
- physical characteristics of ground- water in the subsolil
- strength of the subsoil
- compressibility and consolidation of ground
- geostatics stresses in the subsoil
- stress from external loads in subsoil
- bearing capacity of subsoil
Basic bibliography:
1. Wiłun Z.: Zarys geotechniki, Warszawa, WKiŁ 2012
2. Pisarczyk St.: Gruntozawstwo inżynierskie, Warszawa, PWN 2001
3. Szymański A.: Mechanika Gruntów, SGGW, Warszawa 2007
Additional bibliography:
1. Jeż J.: Biogeotechnika, Poznań, Wyd. PP 2008
2. Motak E.: Fundamenty bezpośrednie, Warszawa, Arkady 1988
3. Obrycki M., Pisarczyk St.: Zbiór zadań z mechaniki gruntów, Warszawa, PW 2007

Result of average student's workload

Activity	Time (working hours)
1. participation in classes and individual work	150

Student's workload

Source of workload	hours	ECTS
Total workload	150	5
Contact hours	90	3
Practical activities	60	2

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