

SYLLABUS

1. Data about the program of study

1.1	Institution	The Technical University of Cluj-Napoca
1.2	Faculty	Faculty of Civil Engineering
1.3	Department	CCM
1.4	Field of study	Civil Engineering
1.5	Cycle of study	Bachelor of Science
1.6	Program of study/Qualification	CCIA English/Engineering
1.7	Form of education	Full time
1.8	Subject code	46.00

2. Data about the subject

2.1	Subject name	Tehnology of Constructions I (Tehnologia Construcțiilor I)						
2.2	Subject area	Civil Engineering						
2.3	Course responsible/lecturer	Lecturer PhD. eng. Andreea Mircea						
2.4	Teachers in charge of seminars	Lecturer PhD. eng. Andreea Mircea						
2.5	Year of study	III	2.6 Semester	2	2.7 Assessment	C	2.8 Subject category	DS/DOB

3. Estimated total time

3.1	Number of hours per week	2	3.2 of which, course:	1	3.3 applications:	1
3.4	Total hours in the curriculum	52	3.5 of which, course:	14	3.6 applications:	14
Individual study						Hours
Manual, lecture material and notes, bibliography						7
Supplementary study in the library, online and in the field						7
Preparation for seminars/laboratory works, homework, reports, portfolios, essays						7
Tutoring						-
Exams and tests						3
Other activities						-
3.7	Total hours of individual study	24				
3.8	Total hours per semester	52				
3.9	Number of credit points	2				

4. Pre-requisites (where appropriate)

4.1	Curriculum	N/A
4.2	Competence	N/A

5. Requirements (where appropriate)

5.1	For the course	Multimedia equipment
5.2	For the applications	Multimedia equipment

6. Specific competences

Professional competences	<p>After completing the discipline, students will be able to:</p> <ul style="list-style-type: none"> - Have knowledge about the basics of construction technology - Evaluate advantages and disadvantages in designing methods and building techniques - Select the construction technologies, machinery, transporting vehicles and the technological equipment for construction activities i.e. preparatory works, transportation and earthwork technologies; - Complete a technical report in accordance with construction work regulations
Cross competences	<ul style="list-style-type: none"> - Elaboration and presentation of a technical report in accordance with specific technical regulations;

7. Discipline objectives (as results from the *key competences gained*)

7.1	General objective	Development of skills and competencies needed in construction activities on compliance with safety requirements and sustainability
7.2	Specific objectives	Gain general theoretical knowledge on construction technologies

8. Contents

8.1. Lecture (syllabus)		Teaching methods	Notes
1	Introduction to construction technologies. Transport of materials and products during construction activities.	Interactive exposure	Multimedia equipment
2	Earthworks. Preparation for construction. Site clearing		
3	Excavation works. Heavy construction machinery		
4	Choosing the proper machinery, equipment and work techniques.		
5	Soil handling and disposal. Machines equipped with blades		
6	Achieving compacted earth fillings. Soil stabilization.		
7	Auxiliary works. Safety at works, accident prevention		
Bibliography <ol style="list-style-type: none"> 1. AT Mircea "Construction Equipment for Earthwork Operations – Student Handbook", Ed. UTPRESS 2013. 2. AT Mircea "Lucrări de terasamente – Mașini de construcții terasiere", Ed. UTPRESS 2014. 3. RE Pașca, A Moga "Tehnologia executării terasamentelor", Ed. UTPRESS 2003. 4. Standard Construction Procedures, Part E: General Earthworks Information, USA 2004. 5. Specification of Soil Handling and Disposal, Div.2, Sec 02115, USA. 6. EN 1992-1-1. Eurocode 2: Design of concrete structures - Part 1: General rules and rules for buildings. 7. Design and Execution of Earthworks, Section 1: Studies and Execution of Work – Technical Guide, Setra (Service d'Etude Technique) 2007. 			
8.2. Applications/Works		Teaching methods	Notes
1.	Selection of proper machinery, equipment and work techniques necessary for different construction activities: Theme presentation and working instruction:	Interactive exposure, applications, workshop	Multimedia equipment
2.	L1: Selecting heavy machinery, equipment and transporting vehicle (part I) - Application		
3.	- (part II) - Result analysis and discussion		
4.	L2: Estimating Activity Duration (part I) – Application.		
5.	- (part II) - Result analysis and discussion		
6.	L3: Estimating quantities (part I) – Application, result analysis and discussion		

7.	Final verification of the project		
Bibliography 1. AT Mircea “Construction Equipment for Earthwork Operations – Student Handbook”, Ed. UTPRESS 2013. 2. AT Mircea “Lucrări de terasamente – Mașini de construcții terasiere”, Ed. UTPRESS 2014. 3. RE Pașca, A Moga “Tehnologia executării terasamentelor”, Ed. UTPRESS 2003. 4. Standard Construction Procedures, Part E: General Earthworks Information, USA 2004. 5. Design and Execution of Earthworks, Section 1: Studies and Execution of Work – Technical Guide, Setra (Service d’Etude Technique) 2007. 6. EN 1992-1-1. Eurocode 2: Design of concrete structures - Part 1: General rules and rules for buildings.			

9. Bridging course contents with the expectations of the representatives of the community, professional associations and employers in the field

Acquired skills will be necessary to the civil engineers who work in structural design, construction companies and consultancy offices

10. Evaluation

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in the final grade
Course	Fulfilling requirements for examination of theoretical part with min grade 5/10	Written paper (W)	80 %
Applications	Declared admissible, with min. grade 5/10	Verification and discussion (A)	20 %
10.4 Minimum standard of performance:			
Grade 5/10, with the condition that $W \geq 5$ and $A \geq 5$			

Date of filling in:	Teachers in charge of:	NAME	Signature
30.09.2018	Courses	Lecturer PhD. eng. Andreea Mircea	
	Applications	Lecturer PhD. eng. Andreea Mircea	

Data avizării în Consiliul Departamentului CCM	Director Departament CCM Conf.dr.ing. Claudiu ACIU

Data aprobării în Consiliul Facultății de Construcții	Decan Conf.dr.ing. Nicolae CHIRA
