

CONSTRUCTION MANAGEMENT

Discipline/module data

Faculty	Economic and Business Engineering				
Department	Economics and Management				
Academic degree	Bachelor's degree, first cycle				
Study-programme	0413.1. Business and Administration				
Year of study	Semester	Type of evaluation	Formative category	Category of optionality	Credits ECTS
II (full-time); III (part-time)	4; 5	E, YP	S– specialized course	C - compulsory course	4

1. Total estimated time

Total hours in the curriculum	Including:				
	Contact hours		Individual work		
	Course	Practical lessons	Year project	Study of theoretical material	Preparing applications
120 (full-time)	30	30	20	20	20
120 (part-time)	12	12	40	20	36

2. Prerequisites to access the discipline/module

According to the curriculum	Mathematics, Economic Theory, Infographics, Technology, Building Materials
According to competences	An awareness of the methods of economic theory and the application of mathematical methods of calculation.

3. Conditions for carrying out the educational process

Course	A projector, blackboard and chalk are required to present theoretical material in the classroom. Late arrivals and phone calls are not allowed during classes.
Practical lessons	Students will need a pocket calculator to perform calculations. Students will work from a set of problems and examples developed by the holder and complete an individual assignment posted on the MOODLE platform

4. Specific competences acquired

Professional competences	PC 1. Use concepts, principles, phenomena, methodologies in the field of exact, technological, economic, social and human sciences to solve specific problems. ✓ Identify and define concepts, principles, methods, processes used in management. ✓ Explain and interpret theoretical results, phenomena or processes. Apply basic principles and methods to solve specific project management problems. ✓ Evaluate procedures and methodologies used to process and interpret computational results in solving specific design problems. ✓ Compose projects of organization/planning of professional activities in the field of construction.
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	PC 2: Organize project management activities. Description of how to organize project management ✓ Explaining and interpreting effective ways of organizing project work ✓ Application of effective methods of project organization ✓ Critical assessment of the qualitative level of organization of economic activity of the enterprise
Transversal competences	TC1. Applying the values and ethics of the profession and performing professional tasks responsibly with limited autonomy and skilled assistance. Develop logical, convergent and divergent thinking, practical applicability, evaluation and self-assessment in decision making TC2. Carrying out activities and specific roles in teamwork at different hierarchical levels. Promoting initiative, dialog, cooperation, positive attitudes and respect for others, diversity and multiculturalism, and continuous improvement of one's own performance

5. Subject/module objectives

General objective	Developing a management culture and education that will enable future graduates to manage construction departments and companies.
Specific objectives	- Theoretical study of construction project management methods; - Knowledge of methods of sequential, parallel and flow planning and organization; their advantages and disadvantages; - Analysis of specific situations related to the practice of planning and optimization of construction by criteria of duration, cost, human and financial resources; - Training in automated project planning skills.

6. Content of the subject/module

Topics of teaching activities	Number of hours	
	full-time study	part-time study
Lecture topics		
T1. Theoretical aspects of construction management.	2	1
T2. Legal bases of construction project management.	2	0,5
T. 3. Fundamentals of project management (PM).	2	0,5
T.4. Project management organization.	2	1
T.5. Project life cycle.	2	1
T.6. Concept, problem and logic of goal planning.	2	0,5
T.7. Staging and planning activities.	2	1
T.8. Methods of project planning. Gantt chart.	2	1
T.9. Methods of construction project planning. Cyclogram.	2	1
T.10. Matrix - a tool for reducing project duration without additional costs.	2	1
T.11. Network schedule and determination of critical path.	4	2
T.12. Transformation, integration and hybridization of flow scheduling models.	4	2
T.13. General characteristics and basic rules of using MICROSOFT PROJECT software product.	2	0,5
Total course	30	12

Topics of practical lessons		
T.1 Project Management	2	1
T.2 Legal Basis of Construction Project Management	2	0,5
T.3 Fundamentals of Project Management (PM)	2	0,5
T.4. Project Management Organization	2	1
T.5. Project Life Cycle	2	1
T.6. Concept, problem and logic of planning objectives	2	0,5
T.7. Creating and planning activities	2	1
T.8. Flow-based methods of project planning. Gantt chart	2	1
T.9. Scheduling models for construction projects. Cyclogram	2	1
T.9 Construction project planning models. Cycle program	2	1
T.10. Matrix - a tool for reducing project duration without additional costs	4	2
T.11. Network diagram and critical path definition	4	2
T.12. Transformation, integration and hybridization of flow scheduling models	2	0,5
T.13. General characteristics and basic rules for using MICROSOFT PROJECT		
Total practical lessons	30	12

7. References:

Mains (Mandatory)	http://moodle.utm.md/course/view.php?id=882#section-11 - Andrew Baldwin, David Bordoli. A Handbook for Construction Planning and Scheduling. © 2014 by John Wiley & Sons, Ltd, ISBN 978-0-470-67032-3 - Construction Project Scheduling and Control, Second Edition, Published by John Wiley & Sons, Inc., Hoboken, New Jersey Published simultaneously in Canada, Copyright # 2010 by John Wiley & Sons, Inc. All rights reserved, ISBN 978-0-470-50533-5 (cloth) S. Keoki Sears Glenn A. Sears Richard H. Clough Jerald L. Rounds Robert O. Segner, Jr., Construction Project Management, A Practical Guide to Field Construction Management, Copyright © 2015 by John Wiley & Sons, Inc. All rights reserved. Published by John Wiley & Sons, Inc., Hoboken, New Jersey. Published simultaneously in Canada. ISBN 978-1-118-74505-2
Additional (optional)	- Legea nr. nr. 835- XIII din 17 mai 1996 privind principiile urbanismului și amenajării teritoriului; - Legea 72 –XIII din 2 februarie 1996 privind calitatea n construcții; legea nr. 96 –XVI din 13 aprilie 2007 privind achizițiile publice; - Legea nr. 163 din 9 iulie 2010 privind autoritatea executării lucrărilor de construcții; - NCM A. 01,02-96 Sistemul de documente normative în construcții. Dispoziții generale. - NCM A. 03,10-2004 Evaluarea conformității lucrărilor/ serviciilor de construcții. - NCM A. 07,02-99 Instrucțiuni cu privire la procedura de elaborare, avizare, aprobare și conținutul cadrului al documentației de proiect pentru construcții. - NCM A. 01,01-2005 Regulile de determinare a valorii obiectivelor de construcții - Строительство XXI - менеджмент инновационных проектов. Е.Е. Шамис, Н.Г. Цуркану, М.И. Холдаева, ; Техн. Ун-Т Молдовы. Solid Stone Intern Washington, USA.-Ch.Tehnica-Info,2012-110p.-(Серия "Строительство XXI"). ISBN 97899975-63-336-9

	9. N. Țurcanu, I. Albu, M. Botnaru. Metode moderne de planificare a proiectelor de construcții/Abordări moderne privind drepturile patrimoniale, Manifestare științifică internațională, UTM, 2022, p. 378 - 386, ISBN 978-9975-3541-0-3; 10. N. Țurcanu, M. Botnaru. Metode de evaluare și selectare a proiectelor în afaceri imobiliare/Problematica patrimoniului arhitectural în Republica Moldova, Chișinău, Moldova, 11-13 noiembrie 2020, Manifestare științifică națională, Universitatea Tehnică a Moldovei, p.177- 184, ISBN 978-9975-3481-3-3 11. Bugaian Larisa. Managementul firmei. USM. Chișinău. 2010. 12. Țurcanu, Nicolae. Managementul proiectelor: Suport de curs / Nicolae Țurcanu, Aliona Grossu; Univ. Tehn. A Moldovei , Fac. Inginerie Economică și Bussines- Ch.”Tehnica-Info”, 2009 (Tipografia. Or. Iași). 128p. 13. Țurcanu, Nicolae. Botnaru, Marcela, Managementul proiectelor. Ghid de planificare.-Chișinău, Tehnica-Info, 2020.- 57 p. 14. Țurcanu, Nicolae. Botnaru, Marcela, Managementul în construcții. Ghid didactico-metodic de planificare în flux a proiectelor.-Chișinău, Tehnica-Info, 2022.- 70 p.; 15. Nicolae Țurcanu. Managementul proiectelor, p. 507 -545, în: Management industrial: Manual universitar)/Univ. Tehn. a Moldovei; Andrei Cojuhari, Vasile Mamaliga.- Chișinău: Tehnica-info, 2019 (PIM, Iași). - 578 p., ISBN 978-9975-63-446-5
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8. Evaluation

Education form	Periodic evaluations		Current evaluation	Individual study	Exam
	PE 1	PE 2			
full-time study	15%	15%	15%	15%	40%
part time study		25%		25%	50%
Minimum performance standard					
Attendance and involvement (activity) at lectures and practical lessons.					
Obtaining the minimum grade '5' for each type of evaluation.					