

Faculty of Civil Engineering / CIVIL ENGINEERING / CONSTRUCTION PLANNING AND ORGANIZATION

Course:	CONSTRUCTION PLANNING AND ORGANIZATION			
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
8047	Optional	2	7	3+3+0
Programs	CIVIL ENGINEERING			
Prerequisites				
Aims	Students should get to know with the basic categories and concepts from the area of quality management in civil engineering			
Learning outcomes				
Lecturer / Teaching assistant	Dr Milan Trivunić - professor Mr Željka Beljkaš - assistant			
Methodology	Lectures, consultations, seminar paper			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Planning of the process in civil engineering.			
I week exercises	Planning of the process in civil engineering.			
II week lectures	Norms in civil engineering, structure analysis of the working hours in civil engineering, recording the working process (chronometre, method of current observation, photo-reviews), statistical analysis of the recorded working period, determination of stan			
II week exercises	Norms in civil engineering, structure analysis of the working hours in civil engineering, recording the working process (chronometre, method of current observation, photo-reviews), statistical analysis of the recorded working period, determination of stan			
III week lectures	Planning and estimation of costs: procedures, types and models of estimation.			
III week exercises	Planning and estimation of costs: procedures, types and models of estimation.			
IV week lectures	Production of dynamic plan per PERT methods. Optimization of the network plans: i-j, PD, terms and funds.			
IV week exercises	Production of dynamic plan per PERT methods. Optimization of the network plans: i-j, PD, terms and funds.			
V week lectures	Cyclograms plans: linear, circular, vector.			
V week exercises	Cyclograms plans: linear, circular, vector.			
VI week lectures	I PRELIMINARY EXAM			
VI week exercises	I PRELIMINARY EXAM			
VII week lectures	FREE WEEK			
VII week exercises	FREE WEEK			
VIII week lectures	Techno-economic study: scope of works, bill of quantities, estimated bill of quantities by Contractors, contract obligations, structure of prices, structure of costs, plan of overheads, plan of financial funds, measures for realization TEE.			
VIII week exercises	Techno-economic study: scope of works, bill of quantities, estimated bill of quantities by Contractors, contract obligations, structure of prices, structure of costs, plan of overheads, plan of financial funds, measures for realization TEE.			
IX week lectures	Monthly operative plan: for the company, sites, plant and structures (report for previous month, dynamic plan of the work execution, dynamic plan of resources, measure for plan realization).			
IX week exercises	Monthly operative plan: for the company, sites, plant and structures (report for previous month, dynamic plan of the work execution, dynamic plan of resources, measure for plan realization).			
X week lectures	Measures and standards of the work protection in civil engineering, at the sites and in plants. Conditions for temporary and permanent rooms and structures. Measures of protection at work.			
X week exercises	Measures and standards of the work protection in civil engineering, at the sites and in plants. Conditions for temporary and permanent rooms and structures. Measures of protection at work.			

XI week lectures	Organization and protection in the case of state of emergency: definition, tasks, preventive action, action directly after state of emergency, mitigation of results, preparation and renewal, organizational model, management, informing.					
XI week exercises	Organization and protection in the case of state of emergency: definition, tasks, preventive action, action directly after state of emergency, mitigation of results, preparation and renewal, organizational model, management, informing.					
XII week lectures	Reengineering of the business processes, reengineering of processes in civil engineerin.					
XII week exercises	Reengineering of the business processes, reengineering of processes in civil engineerin.					
XIII week lectures	Bases of systematic engineering. Concept of overwhole engineering (Concurrent Engineering-CE) and "Lean" civil engineering.					
XIII week exercises	Bases of systematic engineering. Concept of overwhole engineering (Concurrent Engineering-CE) and "Lean" civil engineering.					
XIV week lectures	Concept of computer integrated manufacturing (Computer Integrated Manufacturing- CIM), that is computer integrated construction (Computer Integrated Construction -CIC).					
XIV week exercises	Concept of computer integrated manufacturing (Computer Integrated Manufacturing- CIM), that is computer integrated construction (Computer Integrated Construction -CIC).					
XV week lectures	II PRELIMINARY EXAM					
XV week exercises	II PRELIMINARY EXAM					
Student workload	Weekly 7 credits x 40/30 = 9 hours and 20 min. Total overload per course 7.0x30 = 210 hours					
Per week	Per semester					
7 credits x 40/30=9 hours and 20 minuts 3 sat(a) theoretical classes 0 sat(a) practical classes 3 excercises 3 hour(s) i 20 minuts of independent work, including consultations	Classes and final exam: 9 hour(s) i 20 minuts x 16 =149 hour(s) i 20 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 9 hour(s) i 20 minuts x 2 =18 hour(s) i 40 minuts Total workload for the subject: 7 x 30=210 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 42 hour(s) i 0 minuts Workload structure: 149 hour(s) i 20 minuts (courses), 18 hour(s) i 40 minuts (preparation), 42 hour(s) i 0 minuts (additional work)					
Student obligations						
Consultations						
Literature	P. Đuranović: Upravljanje građevinskim projektima, GF, Podgorica, 2004. 2. P. Đuranović: Projektovanje organizacije gradjenja, GF i Kulturno prosvjetna zajednica CG, Podgorica, 1995 3. B. Trbojević: Organizacija građevinskih radova, Građevinska knjiga,					
Examination methods	It is given minimal and maximal points which student can get in the scope of elements which are pointed, where student must get, in any case, prescribed minimal points per element: - Attendance at lectures and exercises (obligatory 70 %)					
Special remarks						
Comment	Further information on the course can be got at the teacher, assistant, manager of the study program and vice-dean for teaching courses.					
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points