Study program: Civil Engineering

Course: Site Organization and Management

Professor/assistant: PhD Milorad Zlatanović / Milan Protić

Status of course: compulsory

ECTS credits: 7

Pre-requisites: none

Aims of the course:

The aim of the course is to prepare a student to:

- apply the principles and methods of the scientific organization of work in construction;
- acquire basic knowledge from industrial manag. and exec. its application in the construction industry;
- be capable of independent and teamwork on the development of construction organization projects and especially the manag.t of construction sites according to the dynamic plans for the construction of various civil eng. struc., hydr. eng., high-rise buildings, prefab. Build. and special purpose facilities.

Learning outcomes:

After finishing the course, a student will be able to:

- doing the pre-measurement and making a budget for the given project independently;
- using norms and standardizing all positions;
- developing a static workforce plan and forming a workers' table;
- performing the design of the network plan, doing the time analysis and determining the critical path;
- making a gantt chart, and a resource and finance diagram;
- using and applying MS Project successfully.

Syllabus:

Theoretical part

Introduction to the organization of work. Principles and methods of scientific labor organization. Rationalization in construction production. Calculation of works. Price analysis. Premise of works. Measur. and standardization. Awarding. Individual and collective rewarding systems. Labor supply. Workers' table. Machines' table. Parallel dynamic plan. Network planning technique. Structure analysis. Time analysis. Evidence and control of the execution of the plan. Project building organization. Phases of project design. Bases for project realization. Methodology of developing the project for site organization. Analysis of possible working time fund. Business and legislation in construction. Technical documentation. Documentation of the site. Supervision. Techn. inspection and handover of the building object.

Practical part

Creation of seminar paper: Work on the project task: Use of norms in construction and standardization of positions on the building. Creation of static plans by resources and workers' tables. Design of a network dynamic plan, and time analysis with the determination of a critical path on the network plan. Gantt chart, with a dynamic representation of resource employment.

Literature:

1. Trivunić M, Matijević Z, *Tehnologija i organizacija građenja*, FTN, 2009.
2. Mirković S, *Organizacija i ekonomika građenja*, Građevinski fakultet Niš, 1995.
3. Zlatanović M, *Tehn. i org. građ., zbirka reš. zad. sa izvodima iz teor.*, Građevinski fakultet Niš, 2012.
4. Stefanović A, *Organizacija građenja – zbirka rešenih zadataka*, Građevinski fakultet Niš, 1998.

Number of active classes			Other forms of teaching:
Lectures: 2	Practical classes: 3	Laboratory classes: 1	

Teaching methods:

Interactive classes incl. solving practical examples.

Grading system (maximum 100 points), **grading scale** from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

Pre-commitments	**points**	**Final exam**	**points**
activity during lectures	5	written exam	-
activity during practice	5	oral exam	30
colloquium(s)	20 + 20		
seminar paper(s)	20		
Sum	**70**	**Sum**	**30**