

Course Name: STEEL STRUCTURES OF INFRASTRUCTURE FACILITIES				
Course Code	Course Status	Semester	ECTS Credits	Number of classes
	Compulsory	II	5	2P+1V+1L
Study programmes: Postgraduate master academic studies - study programme Civil Engineering - Structures; 4 semesters / 120 ECTS credits.				
Conditioned by other courses: No prerequisites.				
Aims of the course: Getting basic knowledge in design and construction of steel structures of civil engineering works.				
Learning outcomes: After passing this exam, student will be able to: 1. Know basic types of steel structures of civil engineering works, as well as principles and specifics of their design, construction, protection and maintenance. 2. Independently solve specific problems from common engineering practice in domain of steel structures of civil engineering works. 3. Independently apply acquired knowledge regarding design and construction of steel structures of civil engineering works.				
Teacher and assistant: Assoc.Prof. Biljana Ščepanović, Dr-Ing. – teacher Mladen Muhadinović, MSc; Petar Subotić, MSc – assistants				
Methods of teaching and learning: Lectures, exercises, laboratory exercises, consultations, semester project.				
Course content:				
I teaching week	Introduction – General about steel structures of civil engineering works, basic principles and specifics of their design, construction, protection and maintenance.			
II teaching week	Crane girders.			
III teaching week	Crane girders.			
IV teaching week	Crane girders.			
V teaching week	Towers and masts.			
VI teaching week	Towers.			
VII teaching week	Masts.			
VIII teaching week	Chimneys.			
IX teaching week	Silos.			
X teaching week	Tanks.			
XI teaching week	Pipelines.			
XII teaching week	Assembly, protection and maintenance of steel structures of civil engineering works.			
XIII teaching week	In situ teaching – excursion to the construction site or existing objects.			
XIV teaching week	Semester project presentation and defence.			
XV teaching week	Semester wrap-up and final preparation for the examination.			
Student's obligations: Attending of lectures and exercises, elaboration of semester project.				
STUDENTS LOAD				
<u>Per week</u>		<u>In semester</u>		
5 credits x 40/30 = <u>6.67 hours</u> Structure: 2 hours lectures 2 hours exercises 2.67 hours individual work, including consultations		Teaching and final exam: (6.67 hours) x 16 = <u>106.67 hours</u> Necessary preparations before semester (administration, enrolment etc) 2 x (6.67 hours) = <u>13.33 hours</u> Total load for the course: <u>5x30 = 150 hours</u> Additional work for exam preparation in the additional exam session, including passing of correctional exam <u>between 0 and 30 hours</u> (remaining time from the previous issues to the final load for the course of 150 hours) Load structure: 106.67 hours (teaching) + 13.33 hours (preparation) + 30 hours (additional work)		
Literature:				
<ol style="list-style-type: none"> Buđevac D., Marković Z., Bogavac D. Tošić D.: Metalne konstrukcije, knjiga 1 (Osnove proračuna i konstruisanja) i knjiga 2 (Specijalna poglavlja i tehnologija izrade), Građevinski fakultet u Beogradu, Beograd, 1999. Debeljković M.: Čelične konstrukcije u industrijskim objektima, Građevinska knjiga, Beograd, 1995. Markulak D.: Posebna poglavlja čeličnih konstrukcija, Građevinski fakultet u Osijeku, 2010. Bešević M.: Odabrana poglavlja metalnih konstrukcija, Građevinski fakultet u Subotici, 2020. McCormac J.C.: Structural Steel Design, HarperCollins College Publishers, New York, 1995. Geylord E.H., Geylord C.N., Stallmeyer J.E.: Steel Structures, McGraw-Hill International Editions, Singapore, 1992. Zarić B., Stipanić B., Buđevac D.: Čelične konstrukcije u građevinarstvu, Građevinska knjiga, Beograd, 1989. JUS and MEST EN standards. 				
Examining system and grading:				
Examining is continuous during the semester and in the final exam. Maximum number of points in semester: 100. The structure of examination and points is as follows: - semester project: 22.5 – 45 (min positively marked semester project = 22.5 points); - final exam: 27.5 – 55 (min positively marked final exam = 27.5 points). Semester project should be completed in order to be marked. It consists of oral and written part. Final exam is in written form. Both theory part and numerical part should be done ≥ 50%. Following grading system is applied: A for ≥ 90 points, B for 80 ≤ points < 90, C for 70 ≤ points < 80, D for 60 ≤ points < 70, E for 50 ≤ points < 60, F for < 50 points. Positive grade is obtained for min 50 points. F = failed.				
Special notes for the course:				
Data prepared by teacher: Assoc.Prof. Biljana Ščepanović, Dr-Ing.				
Note: Additional information on course may be obtained from course teacher, assistant, head of the study programme and vice-dean for teaching.				