

Subject Title: Metallic Structures

Basic data of the course	
Academic unit:	Faculty of Civil Engineering
Subject title:	Metallic Structures
Level:	Master
Subject status:	Compulsory
Year of studies:	Year I - semester I
Number of hours per week:	2+2
ECTS credits:	6
Time / Place:	According to the Timetable
Teacher:	Prof. ass.Dr Cene Krasniqi Mr. Sc. Ali Sh Muriqi
Contact details:	Email: alishmuriqi@uni-pr.edu
Course description:	<p>The course of Metallic constructions it has includes:</p> <p>in general lecture hours handle with themes of “Metallic Constructions”, with an introduction of the history of tall metallic buildings. Afterwards we introduce the methods of choice of tall buildings base forms and foundations. Lecture of choice of bearing horizontal and vertical structure of buildings. The horizontal structure which includes flat slab structure, corrugated slab and slab with gallery</p> <p>An overview of bearing spatial bracing system (horizontal and vertical systems, bracing elements);</p> <p>An explanation of the basis configuration and disposition of columns;</p> <p>Exercises part deals with the design of a given example including: mid floor of tall buildings, and proposal of several variants for execution, choice and calculation of constructive systems, including flat slab and flat girders, dimensions calculation and details design of these elements (slab-girder, girder-girder and girder-columns connections)</p>
Course objectives:	Object of study: mainly to apply knowledge from lecture and exercise parts for designing (main design draws up) buildings with typical forms and systems.

Expected learning outcomes:	<p>After completion of this course, students are able to complete independently:</p> <ol style="list-style-type: none"> 1. The general disposition of the high-rise building with metal construction and, if necessary, may be part of a design group. 2. Load analysis (permanent loads, wind, snow, temperature change, etc.), 3. Static system of load-bearing beams 4. The most unfavorable load scheme and static account 5. Determination of the geometry of the main load-bearing elements of the structure.
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Kontributi në ngarkesën e studentit (gjë që duhet të korrespondoj me rezultatet e të nxënit të studentit)

Aktiviteti	orë	Ditë/jave	total
lecture	2	15	30
Theoretical/laboratory exercise	2	15	30
Practical work	4	2	8
Contact with professor / consult	1	8	8
Exercise in site			
Colloquium, seminar	2	2	4
homework	2	4	8
Student independent study time (in library or at home)	2	15	30
Final preparation for exam	4	4	16
Time for evaluation (test, quiz, final exam)	4	2	8
Projects, presentation, etc	4	2	8
Total			150

Methodology of teaching:	Lecture, numerical exercises, discussions during lecture and exercise in groups ; site visits during different phases of building.
Evaluation method:	<p><i>for evaluation should be taken into account: percentage of participation, parcial/intermediar estimation for final estimation.</i></p> <p><i>One of estimation method is as follows:</i></p> <p>frequent presence: 10%</p> <p>participation in site visit 5%</p> <p>seminar work 15%</p> <p>Final exam 70%</p> <p>Total 100%final).</p>

Basic Literature:	Konstruksionet e ndërtesave metalike, prof.dr. Afrim Vokshi
Additional Literature:	<ol style="list-style-type: none"> 1. Konstruksionet e çelikut në ndërtimtari nga autoret (Zaric, Budjevac dhe Stipanic) 2. Konstruksionet mikse çelik-beton nga Drago Horvatic` 3. Normativat Eurocode 1,2,3 dhe 4
Zhvillimi i kurrikules	
Java	Ligjeratat
<i>Week 1:</i>	<i>Introduction and base selection of tall buildings</i>
<i>Week 2:</i>	<i>Constructive load-bearing system and foundations</i>
<i>Week 3:</i>	<i>structures of high-rise buildings</i>
<i>Week 4:</i>	<i>Horizontal bearing construction</i>
<i>Week 5:</i>	<i>Types of mid floor structures</i>
<i>Week 6:</i>	<i>Types of flat slab of mid floor construction</i>
<i>Week 7:</i>	<i>Monolithic slabs, prefabricated thin slabs and prefabricated mounting slabs</i>
<i>Week 8:</i>	<i>Profiled sheet metal slabs and mixed slabs</i>
<i>Week 9:</i>	<i>Longitudinal beams under the floor and transverse beams</i>
<i>Week 10:</i>	<i>Connections and extensions</i>
<i>Week 11:</i>	<i>Connection of longitudinal beams under the floor with transverse beams</i>
<i>Week 12:</i>	<i>Columns</i>
<i>Week 13:</i>	<i>Column mounting extension.</i>
<i>Week 14:</i>	<i>Connection of the the columns with the foundations</i>
<i>Week 15:</i>	<i>Stiffness elements, Horizontal stiffness elements, Vertical stiffness elements</i>
Academic Policies and Code of Conduct	
<p>Tools used during lessons should be cleaned and appropriately stored at the end of the class lesson.</p> <p>Mobile / smart phones and other electronic devices (eg. iPods) should be turned off (or silent mode) and not exposed during school hours.</p> <p>Laptops and tablet computers are only allowed to be used silently; other activities such as checking personal email or browsing websites are prohibited.</p>	