

Name subjects :		Architectural Structural design I		
Code subjects	Case status	Semester	Number of ECTS credits	Number of lessons (weekly)
PO3P1	Required	VI	6	2P+2V

Study programs for which it is organized : Polytechnics , general studies

Conditionality other Subjects : None.

Idea studies subject : Understanding the importance design through theoretical work and practical knowledge on field .

Goals studies subjects : Getting to know each other students with basic elements design , with basic principles dimensioning simple reinforced concrete elements: beam and pillars , as and basic principles dimensioning Ramovskih carrier . Serving programmatic budget software influence in the elements and 2D frames .

Outcomes learning : A student who successfully overcome this one subject , will be able to :

1. Understands importance design , master basic principles dimensioning reinforced concrete and steel elements ;
2. Serves valid regulations and yes the same understands and practices through realistic tasks ;
3. B e n e t s budget software and dimensioning elements and construction , and to understand way and purpose their applications , and that all acquired knowledge apply and in practice ;
4. R elationships different constructive systems and is capable of choosing optimal constructively and construction solution , as and appropriate way materialization in accordance with architectural concept ..

Name and surname teacher and collaborators : Associate Professor Jefto Terzović, specialist in science . gradj. Nina Čulafić, MA Marija Junčaj

Teaching method and overcoming materials : lectures , exercises , tests , practical work- visits construction site

WORK PLAN

Sunday : *Name methodological unit for lectures (P), exercises (V) and others teaching contents (O); Planned shape checks knowledge (Pz)*

Preparatory Sunday		Introduction , preparation and enrollment semester .
And Sunday	P/V	Introduction to Design I, basic principles design Physical mechanical properties materials - properties concrete - properties reinforcing steel
II	P/V	Stress-strain areas; basics calculation of AB section Practical teaching-visit construction site
III	P/V/ Pz	Centric pressure without effect twisting and centric tension ; theory and tasks Test
IV	P/V	Action of bending moment - pure bending ; theory and tasks
V	P/V	Small eccentricity ; theory and tasks
VI	PZ	I COLLOQUIUM Practical teaching-visit construction site
VII	P/V	Big eccentricity ; theory and tasks
VIII	P/V	Effect transverse forces ; theory and tasks Graphic work
IX	P/V	Principles of constructing reinforced concrete elements and system Reinforcement rules Protective reinforcement layer to concrete Arrangement, shaping , anchoring and reinforcement continuation Examples
X	P/V	Reinforcement guidance Tightening line force
XI	P/V	Beams carriers ; properties, application and systems beam calculation , dimensioning and reinforcement beam Practical teaching-visit construction site
XII	P/V	Pillars , characteristics, application and systems columns ; calculation , dimensioning and reinforcement pillars
XIII	P/V	Analysis and transfer loads Program SAP2000 software
XIV	P/V	Program SAP2000 software Outline supports; single-storey Ramovsky constructions
XV	P/V	Outline supports; shaping and reinforcement elements Raovo's constructions Defense graphic work
XVI	PZ	Final exam .
XVII		<i>Verification semester and enrollment rating</i>
XVIII		Correctional exam deadline

Obligations student in progress classes : lectures , exercises , tests , practical teaching

Email consultations : YES

Load student

<p>Sunday : 6 credits x 40/30 = 8 hours</p> <p>Structure : 2 hours lectures 2 hours exercises 4 hours independent work, including and consultations .</p>	<p>In the semester : Total subject load 6x30 = 180h Structure : Teaching and closing exam : 8h x 16 weeks = 128h Necessary preparations ago beginning semester (administration , enrollment , verification): 8hx2=16h Additional preparation work and laying remedial exam time : 0-36h</p>
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Literature :
Budget concrete construction EUROCOD 2, part 1-1: General rules and rules for buildings (chapter 2,3,4,6.1,6.2,6.39.1,9.2,9.5);
Budget reinforced concrete construction according to EUROCODE 2(EC2)-Vahid Hasanović, Civil Faculty of Arts Sarajevo

Shapes checks knowledge and evaluation :
Test 14 %, graphic work 16%, midterm exam 35% and exam 35%.

Rating	A	B	C	D	E
Number penalty	90-100	80-89	70-79	60-69	50-59