

	Name subjects:	Installations in buildings: plumbing and sewage		
Subject code	Status subjects	Semester	Number ECTS credit	Fund hours (weekly)
PL1IUZ1	Required	And	8	2P+2V

Studio programs for which is organizes: Faculty for polytechnic, studio program Polytechnic

Conditionality other subjects: There is none.

Idea studies subjects: Study idea subjects yes yes is students through acquaintance basic principles design and performance installation in buildings, meet with the above-mentioned system.

Objectives of studying the course : The aim of the course is to acquire theoretical knowledge through familiarization with the basic principles of water supply and sewerage installations in buildings. through making seminar work they can apply. Seminar paper is conceived as an installation project waterworks and sewage. In addition to getting to know each other with herself the installation introduces students to the needs of space in the context of installations and their functionality.

Learning outcomes: A student who successfully completes this course will be able to:

1. Understands the basic principles of designing and performing water supply and sewage installations in buildings;
2. Analyzes and applies technical solutions of water supply and sewage systems, including their elements, materials and equipment;
3. Creates a basic project for water supply and sewerage installations through independent seminar work;
4. Assesses the functional requirements of the space in relation to installation systems and their application;
5. Applies relevant technical standards and legislative framework in the design and execution of installations

Name and last name teacher and collaborators: prof. Mr. Milan Vujović, B.A.Arch., Zorica Djuranovic, B.Sc.Civil Eng.

Method teaching and overcoming materials: lectures, exercises, seminar work.

PLAN WORK

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

Preparatory Sunday		Getting to know each other, preparation and enrollment semester.
And Sunday	P/V	Sewerage. General part. Sanitary devices and equipment
II	P/V	Pipes accessories. Sewerage systems
III	P/V	Special objects and devices for distribution and treatment water. Designing sewage networks
IV	P/V	Drainage atmospheric water, performance and protection sewage. Legislative frame.
V	P/V	Overview works
VI	P/V	Waterworks - general part. Introduction in issues. Collection water
VII	P/V	Materials for performance plumbing networks.
VIII	P/V	Waterworks armatures
IX	P/V	Plumbing compose and schemes
X	P/V	Execution waterworks
XI	P/V	Budget waterworks
XII	P/V	Firefighter water supply. Preparation warm water
XIII	P/V	Devices and equipment for distribution and treatment water
XIV	P/V	Project waterworks and sewage. Preparation for exam, review works
XV	P/V	Overview markets. Legislative frames
XVI	PZ	Final exam.
XVII		Correctional exam deadline

Obligations student in during teaching: lectures, exercises, seminar works.

Consultations by e-mail: NO

Load student

Sunday:

8 credit x 40/30 = 10.5 hours

Structure:

2 hours lectures
2 hours exercises
6.5 hours of independent work, including consultations.

In semester:

Total workload for the course 6x30 = 180 hours

Structure:

Teaching and final exam: 8h x 16 Sunday= 128h
Necessary preparations before the beginning of the semester (administration, registration, certification): 8hx2=16h
Additional work for preparation and laying exam in correctional within: 0- 36h

Literature:

Installations waterworks and sewers M.Radonić

Shapes checks knowledge and assessment:

Seminar work 50%, exam 50%.

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