Course Unit Descriptor

Study Programme: Environmental Engineering

Course Unit Title: Planning and designing of fire protection

Course Unit Code: ZP503

Name of Lecturer(s): Assistant Professor Snežana Filip, PhD

Type and Level of Studies: Bachelor Academic Degree

Course Status (compulsory/elective): Elective

Semester (winter/summer): Summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 6

Prerequisites: None

Course Aims:

Acquiring theoretical and practical knowledge for the design and planning of technical and technological preventive fire protection measures with the application of modern technical solutions.

Learning Outcomes:

The acquired theoretical and applied knowledge will enable to design and planning measures of fire protection in order to prevent the fire occurrence. Also, the acquired knowledge enables students to carry out responsible engineering design, supervision, and engineering projects control measures for fire protection as well as fire protection planning.

Syllabus:

Theory

Preparation of a fire protection plan, legislation, regulations and standards. Analysis and assessment of fire risks in technological processes. Selection of elements of importance for assessment of fire risk, identification and assessment of risk level. Determination of hazard zones in terms of degree and level of fire hazard. Equipment selection and measures based on hazard assessment. Organizational measures for fire protection in technological processes. Methods and methodologies for assessing the effectiveness of applied fire safety measures. Initiation of reengineering of technical and technological measures of fire protection.

Practice

Preparation of the project of the fire protection plan.

Required Reading:

1. Paul Stollard and JohnAbrahams. Fire from First Principles A design guide to building fire safety. E & FN SPON An imprint of Routledge London and New York, 2002.
2. John A. Purkiss. Fire Safety Engineering Design of Structures. Butterworth-Heinemann is an imprint of Elsevier, Oxford, UK 2007.
3. Robert W. Fitzgerald, Building Fire Safety Performance Analysis, John Wiley & Sons Ltd, Chichester, Englandm 2004

Weekly Contact Hours: 4	**Lectures:** 2	**Practical work: 2**

Teaching Methods:

Lectures and students group work

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points

Active class participation	5	oral exam	30
Practical work	5		
Test	10		
Project presentation	50		