Course Unit Descriptor

Study Programme: Disaster Risk Management and Fire Safety

Course Unit Title: Assessment of Damaged Structures

Course Unit Code: URZP62

Name of Lecturer(s): Ivan Lukić, Tatjana Kočetov Mišulić

Type and Level of Studies: Master level

Course Status (compulsory/elective): compulsory

Semester (winter/summer): winter

Language of instruction: English

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

Number of ECTS Allocated: 4

Prerequisites: None

Course Aims:

Acquiring knowledge about basic types of structure damage after catastrophic events and fire, as well as about methodologies and methods for the assessment of the actual state and safety of the damaged structures.

Learning Outcomes:

Acquired knowledge is used in professional courses and in engineering practice. The student is competent for the use of different non-destructive and destructive methods of examination, registration and classification of defects and damages, identification of the cause for the appearance, and for rough estimation of the state and safety of the structures after catastrophic events and fire.

Syllabus:

Destructive and non-destructive methods of examination (equipment, procedures, application possibilities). Classification and manifestation of damage on the structures after catastrophic event (fire, earthquakes, explosions, floods, overload, etc.). Examination methodology and assessment of the structure. Technical regulations. Examples of examination and damage assessment of the structures.

Required Reading: Relevant literature in English, tbd

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

Teaching Methods:

Within lectures, presentations in the form of photographs, tables, diagrams, formulas and highlighted texts-definitions are used to explain the course content of the syllabus to the students. Short topic movies are also presented. Within laboratory practice, students can see and independently carry out non-destructive examinations. During auditory practice students are presented with different structures which were assessed with an objective to better understand methodology, data processing and methods of making conclusions. The examination is oral. During the lecturing semester, oral part of the examination may be taken in the form of two colloquiums.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Group assignment		Examination Assignment	
Exercises			
Test			

	Test	<u> </u>				
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,						
	project presentation, seminars, etc.					