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| **UNIVERSITY OF NIŠ** | | | | | | |
| **Course Unit Descriptor** | | **Faculty** | | | Faculty of Occupational Safety in Niš | |
| **GENERAL INFORMATION** | | | | | | |
| Study program | | | | Occupational Safety | | |
| Study Module (if applicable) | | | | / | | |
| Course title | | | | Fire Extinguishing Agents and Equipment | | |
| Level of study | | | | ☒ Bachelor ☐ Master’s ☐ Doctoral | | |
| Type of course | | | | ☒ Obligatory ☐ Elective | | |
| Semester | | | | ☒ Autumn ☐Spring | | |
| Year of study | | | | Fourth year | | |
| Number of ECTS allocated | | | | 5 | | |
| Name of lecturer/lecturers | | | | Žarko Janković, Emina Mihajlović | | |
| Teaching mode | | | | ☒Lectures ☒Group tutorials ☒ Individual tutorials  ☐Laboratory work ☒Project work ☐ Seminar  ☐Distance learning ☐ Blended learning ☒ Other | | |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** | | | | | | |
| *Acquiring knowledge about types and properties of fire extinguishing agents, extinguishment processes, extinguishing equipment, and basic engineering calculations.* | | | | | | |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** | | | | | | |
| Physicochemical bases of fire extinguishment. Definition of, and requirements for, fire extinguishment. Fire extinguishing agents. Division of fire extinguishing agents: according to state of matter, extinguishing mechanism, use – fire class, origin. Fire extinguishment by cooling, suffocation, and homogeneous and heterogeneous inhibition. Water as a fire extinguishing agent: physicochemical properties, advantages and drawbacks, additives. Equipment. Foam as a fire extinguishing agent: term, definition, origin, foaming substances, physicochemical properties, application possibilities. Powder as a fire extinguishing agent: physicochemical properties, types, mechanism, application possibilities. CO2 as a fire extinguishing agent: physicochemical properties, mechanism, application possibilities. Halons as fire extinguishing agents: physicochemical properties, mechanism, prohibited use, ozone layer protection. New chemical fire extinguishing agents: physicochemical properties, mechanism, application possibilities. Inert fire extinguishing agents: types, physicochemical properties, use. | | | | | | |
| **LANGUAGE OF INSTRUCTION** | | | | | | |
| ☒ Serbian (complete course) ☐ English (complete course) ☐ Other \_\_\_\_\_\_\_\_\_\_\_\_\_ (complete course)  ☐Serbian with English mentoring ☐Serbian with other mentoring \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |
| **ASSESSMENT METHODS AND CRITERIA** | | | | | | |
| **Pre exam duties** | **Points** | | **Final exam** | | | **points** |
| **Activity during lectures** | **10** | | **Written examination** | | |  |
| **Project work** | **20** | | **Oral examination** | | | **40** |
| **Teaching colloquia** | **30** | | **OVERALL SUM** | | | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** | | | | | | |