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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** |