**DESCRIPTION OF A STUDY COURSE – SYLLABUS**

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| **Title of a course** | **Mathematics II** | | | | |
| **Study programme** | **Professional undergraduate study Occupational Safety** | | | | |
| **Status of a course** | Obligatory | | | | |
| **Year of study** | 1. | **Semester** | S | **ECTS credits** | 5 |
| **Teaching plan**  **(L + E + S+ Pr)** | 2+0+2+0 | | | | |
| **Goals of a course** | | | | | |
| Introduce students to the basic concepts of the infinitesimal calculus. Prepare students for their practical application. | | | | | |
| **Conditions for enrolling course** | | | | | |
| No conditions | | | | | |
| **Expected learning outcomes on a level of a course** | | | | | |
| 1. Interpretirati osnovne pojmove iz diferencijalnog računa. 2. Riješiti zadatke iz diferencijalnog računa. 3. Objasniti osnovne pojmove iz integralnog računa. 4. Riješiti zadatke iz integralnog računa. 5. Explain concepts from the basics of linear algebra. 6. Solve problems from the basics of linear algebra. 7. Explain concepts from the basics of mathematical analysis for single variable functions. 8. Apply the basics of mathematical analysis to a single variable function. 9. Explain concepts from the basics of infinitesimal calculus.   Solve problems from infinitesimal calculus. | | | | | |
| **Content of a course** | | | | | |
| Concept of derivative. Definition and geometric meaning of derivative. Differential of a function. Rules of derivation. Derivatives of elementary functions. Derivative of a composite function. Higher order derivatives. Equation of tangent. Integralni račun. Neodređeni integrali. Određeni integrali. Primjena određenih integrala. | | | | | |
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