

**„DZEMAL BIJEDIC“ UNIVERSITY OF MOSTAR
CIVIL ENGINEERING FACULTY**

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| Unit: | Soil and rock mechanics II | Subject code: |
| Level: | Graduate | |
| Professor: | Assistant Professor Dr Azra Špago | |
| Contact details: | E-mail: azra.krvavac@unmo.ba | Tel: +387 36 514-864 |
| Contact hours: | Lectures per week: 2 | Practicals/tutorials per week: 2 |
| ECTS: | 6 ECTS | |
| Unit status: | Core | |
| Prerequisites: | - | |
| Synopsis: | General physical and structural properties of the rock (Discontinuities, heterogeneity, anisotropy, natural stress). Intact rock. Shear strength of discontinuities. Rock mass properties (Hoke -Brown failure criterion). Soft rock. Rock mass classifications. In situ and induced stresses. Ground response curve. Rock stability. Foundation on rocks. | |
| Aims: | The aim of the course is to educate students about the basic concepts of mechanics of rock. | |
| Outcomes | Acquisition of basic knowledge about determining the properties of the intact rock, discontinuities and rock mass as well as assembly and application to solving numerical problems of foundation on the rock, rock stability, and stability of underground openings in the rock mass. | |
| Teaching methods: | Lectures, practicals/tutorials/self-directed learning exercises | |
| Assessment: | Two tests 50 %; Three practical reports and essays: 50% | |
| Prescribed literature: | <ol style="list-style-type: none"> 1. Hoek E., <i>Practical rock engineering</i>, New 2007 edition., A course notes, www.rocscience.com 2. http://www.rocksciennce.com. | |