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|  **UNIVERSITY OF NIŠ** |
| **Course Unit Descriptor** | **Faculty** | **Faculty of Civil Engineering and Architecture** |
| **GENERAL INFORMATION** |
| Study program  | Architecture |
| Study Module (if applicable) |  |
| Course title | MECHANICS |
| Level of study | Integrated studies  |
| Type of course | Obligatory  |
| Semester  | Autumn  |
| Year of study  | 1st |
| Number of ECTS allocated | 2 |
| Name of lecturer/lecturers | Marina Mijalković |
| Teaching mode |  Lectures Group tutorials Individual tutorial |
| **PURPOSE AND OVERVIEW (max. 5 sentences)** |
| Mastering of the laws of solid bodies statics under the action of a system of forces in plane and in space. Training of the students for implementation of these law when designing reactions of connections and intersecting forces in simple linear structures Acquisition of necessary knowledge for following up and understanding of contents of other courses which will be attended during the studies. Mastering of knowledge required for determining of reactions of connections of statically determined linear beams, intersection forces of linear beams in plane and in space, as well as of the forces of the lattice members  |
| **SYLLABUS (brief outline and summary of topics, max. 10 sentences)** |
| Structure and properties of solid bodies, motion and types of motion, connections and reactions of connections, external and internal forces, statics axioms. Composition, decomposition and equilibrium of a system of forces, point moment of force, composite systems, reduction and equilibrium of a system of forces in plane.Solid body statics in plane, simple beam, cantilever beam, beam with overhang. Determination of reactions of connections for simple linear beams, Gerber beam and composite beam systems.Lattice beams. Determination of forces in lattice beams members.Determination of forces in intersecting beams in plane. Design of internal forces and diagrams of internal forces. |
| **LANGUAGE OF INSTRUCTION** |
| Serbian (complete course)  |
| **ASSESSMENT METHODS AND CRITERIA** |
| **Pre exam duties** | **Points** | **Final exam** | **points** |
| **Activity during lectures** | **30** | **Written examination** | **40** |
| **Practical teaching** |  | **Oral examination** | **30** |
| **Teaching colloquia** |  | **OVERALL SUM** | **100** |
| **\*Final examination mark is formed in accordance with the Institutional documents** |