



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Structural construction analysis
Level of Study	<input checked="" type="checkbox"/> Bachelor <input type="checkbox"/> Master's <input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory <input checked="" type="checkbox"/> Elective
Semester	<input type="checkbox"/> Autumn <input checked="" type="checkbox"/> Spring
Year of Study	IV
Number of ECTS Allocated	5
Name of Lecturer/Lecturers	Miomir Lj. Jovanović
Teaching Mode	<input checked="" type="checkbox"/> Lectures <input type="checkbox"/> Group tutorials <input type="checkbox"/> Individual tutorials <input checked="" type="checkbox"/> Laboratory work <input checked="" type="checkbox"/> Project work <input type="checkbox"/> Seminar <input type="checkbox"/> Distance learning <input type="checkbox"/> Blended learning <input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

Introduction to Structural Analysis and Design. Engineering Calculation of main test and parts of crane structures. Acquirement of Ability to creations typical structural analysis and Engineering solution of Constructions. FEM modeling. Building of Ability of Computer applications and practical realisations.

Syllabus (brief outline and summary of topics, max. 10 sentences)

1. Introduce to the Supporting Structures of Industrial Machines and Objects, 2. Classification of methods and Engineering access, 3. Action to Supporting Constructions, 4. FEM techniques of Structural Analysis, 5. Linear and nonlinear statical Analysis, 6. Modal Analysis, 7. Dynamical Analysis (Frequency Analysis, Transient Analysis, Seismic Analysis), 8. Beam, Rod, Plate and Solid Finite Element Model applications, 9. Examples (Lattice and Continual Structures), 10. Instructions for Exam.

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	5	Written Examination	(Three Colloquiums) 60

Practical Teaching	5	Final (oral) Examination	Max. 30
Teaching Colloquia (projects)	60	Overall Sum	100

***Final examination mark is formed in accordance with the Institutional documents**