



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Computational fluid dynamics		
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	6		
Name of Lecturer/Lecturers	Miloš Jovanović		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input 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)

The aim of the course is to introduce all students with equipment and hydropower plants. The course is targeting the theoretical and practical aspects of design and construction of hydropower plants.

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

1) Classification of hydropower plants. 2) Types of hydropower plants. 3) Classification: dam schemes, diversion scheme, combined scheme. 4) Types according to the position and construction of the powerhouse: the over ground hydropowerplants, underground hydropower plant, complex systems. 5) Energy characteristics of hydropower plants. Hydropower equipment. 6) Pumping stations. Classification of pumping stations: pumping stations for pressure boosting, pump stations for water supply, sewage pumping stations, water pumping stations for thermal power plants, irrigation pump stations, drainage pumping stations, Pumps for underground mines and surface mining. 7) equipment at pumping stations. 8) Compressor substation.

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
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Lecture (participation)	5	Written Examination	0* (50)
Homework	5	Oral Examination	Max. 50
Project work	40	Overall Sum	100
* Refers to students who have already gained points by completing pre-exam requirements			