



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Model and experimental testing of hydraulic turbomachinery and fans		
Level of Study	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input checked="" type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	dr Zivan Spasić, dr Jasmina B. Bogdanović-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 checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

Students should acquire knowledge in theory models and prototypes, acquiring skills in the methodology of measuring operating characteristics of hydraulic machines and ventilators.
 The main aim is enabling students to formulate independently appropriate modelling and experimental tests, based on scientific principles, which are a function of a doctoral dissertation.

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

1) Tasks of the model and experimental tests. Calculation of operating characteristics. 2) Experimental investigation of fluid flow in turbomachinery elements and profile cascades. 3) The laws of flow similarity. Dimensionless characteristics of fluid flow. 4) The model and experimental tests of pumps, 5) The model and experimental tests of water turbines. 6) The model and experimental tests of fans. 7) The model and experimental tests of flow through the profile cascades.

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	Max 40, depending on Teaching Colloquia

Practical Teaching	5	Oral Examination	50
Teaching Colloquia	40	Overall Sum	100

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