



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Turbulent Fluid Flow Modelling		
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 type="checkbox"/> Autumn	<input checked="" type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	Žarko M. Stevanović, Miloš M. Jovanović, Predrag M. Živković		
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)

To gain new knowledge in the field of modelling turbulent flows. To enable students to formulate independently and on scientific principles appropriate models of turbulent flow which are related to PhD thesis.

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

1) Turbulent flows concept. 2) Turbulence modelling-algebraic stress models. 3) Turbulence model based on the concept of turbulent viscosity. 4) Modeling of the Turbulent Fluxes. 5) LES and DES models of turbulent flows. 6) Direct numerical simulation of turbulent flows.

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	-	Written Examination	-
Practical Work	50	Oral Examination	Max. 50

Teaching Colloquia or Seminar	0	Overall Sum	100
*Final examination mark is formed in accordance with the Institutional documents			