UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION	
Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Heat and mass transfer in fluidized systems
Level of Study	☐Bachelor ☐ Master's ☒ Doctoral
Type of Course	☐ Obligatory ☒ Elective
Semester	☐ Autumn ☒ Spring
Year of Study	II
Number of ECTS Allocated	10
Name of Lecturer/Lecturers	Mladen M. Stojiljković, Branislav V. Stojanović, Jelena N. Janevski
Teaching Mode	☒ Lectures ☐ Group tutorials ☐ Individual tutorials ☒ Laboratory work ☒ Project work ☐ Seminar ☐ Distance learning ☐ Blended learning ☐ Other

Purpose and Overview (max. 5 sentences)

To enable students to independently and on scientific principles discussed and resolved phenomena of heat exchange and mass transfer in fluidized systems and set the appropriate models for mathematical modeling of these processes

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

1) The phenomenon of fluidization. 2) The pressure drop in the layer. 3)The minimum fluidization velocity, 4) Removal of solid particles and boundaries of fluidized bed existence, 5) Characteristics of bubbles, 6) The expansion of the fluidized bed, 7) Mixing and circulation of solid particles in a fluidized bed, 8) Models of fluidization, 9) Drying in fluidized bed 10) The combustion in a fluidized bed, 11) The basic characteristics of a fluidized bed apparatus

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	50

Practical Teaching	**10**	**Oral Examination**	**Max. 35 (depending on Teaching Colloquia)**
Teaching Colloquia	**35**	**Overall Sum**	**100**
***Final examination mark is formed in accordance with the Institutional documents**			