UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION	
Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Selected Topics in Air Conditioning
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	Bratislav D. Blagojević
Teaching Mode	☒ Lectures ☐ Group tutorials ☒ Individual tutorials ☐ Laboratory work ☐ Project work ☒ Seminar ☐ Distance learning ☐ Blended learning ☒ Other

Purpose and Overview (max. 5 sentences)

Extends students knowledge in fields of complex air conditioning systems in buildings with specific demands, energy and building modelling, air conditioning system's simulation and operation optimization.
Students acquire new knowledge on complex air conditioning systems, building energy management systems, efficient energy supply , as well as skills and competences for individual research including completion of PhD thesis.

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

Lectures: 1) Indoor air quality, 2) Air distribution in conditioned zones, 3) Variable air volume systems, 4) Air filtration and clean rooms, 5) Air conditioning systems in hospitals, 6) Air conditioning systems in pharmaceutical industry, 7) Air conditioning systems in hotels, 8) Automatic control of air conditioning systems, 9) Integrating systems in building and building management system, 10) Energy consumption in air conditioning systems
Individual research: 1) Building energy modelling, efficient energy supply, air conditioning system optimization 2) Training on real representative building including analysis of air conditioning system operation

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	-	**Seminar**	
Practical Teaching	-	**Overview and analysis of training building systems**	
Teaching Colloquia	-	**Overall Sum**	
***Final examination mark is formed in accordance with the Institutional documents**			