UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION			
Study Program	Energy and Process Engineering		
Study Module (if applicable)	-		
Course Title	Air conditioning and ventilation		
Level of Study	☐Bachelor	☒ Master's	☐ Doctoral
Type of Course	☐ Obligatory	☒ Elective	
Semester	☒ Autumn	☐ Spring	
Year of Study	I		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Bratilslav 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)

Explains principles and methodology for designing air conditioning and ventilation systems for comfort and industrial applications. Students acquire knowledge and skills necessary to start their engineering careers in field of designing, construction , commissioning and operation of HVAC systems, as well as information concerning energy management related to HVAC systems.

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

1) Introduction, 2) Thermal comfort, 3) Heating and cooling loads, 4) Main processes for conditioning of air, 5) Central air conditioning systems, 6) Mixed (water-air) air conditioning systems, 7) Local air conditioning systems, 8) Air terminal units, duct calculation and design, 9) Control of air conditioning systems, 10) Efficient supply of energy, 11) Energy consumption in buildings, 12) Ventilation of occupied spaces: principles of designing and classification, 13) Local ventilation: construction and calculation

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**	**40**
Practical Teaching	**5**	**Oral Examination**	**30**
Project of specific building air conditioning system	**20**	**Overall Sum**	**100**
***Final examination mark is formed in accordance with the Institutional documents**			