Course Unit Descriptor

Study Programme: Energy And Process Engineering
Course Unit Title: Air Pollution Control
Course Unit Code: M35I22
Name of Lecturer(s): Bukurov Maša, Bikić Siniša
Type and Level of Studies: Master Academic Degree
Course Status (compulsory/elective): elective
Semester (winter/ summer): winter
Language of instruction: english
Mode of course unit delivery (face-to-face/distance learning): face-to-face
Number of ECTS Allocated: 6
Prerequisites: none
Course Aims:. The objective of the course is to acquire knowledge, competences and academic skills of students about the types of pollutants and the manner of their removal from the gas stream. The course envisages the development of creative abilities and mastering specific practical skills in the field of air pollution control. It is also planned for students to achieve the ability to use information and communication technologies in the field of solving environmental problems, as well as getting acquainted with air pollution control equipment and its characteristics. Training students to independently choose equipment for waste gas treatment.
Learning Outcomes: Ability to solve specific problems in the area of waste gas treatment. Ability for critical and self-critical thinking and approach in solving specific problems in the field of air pollution control. Providing students ability to work with modern measurement techniques, application of the measurement error theory and processing and display measurement results. Development of skills in the field of air pollution control. Students will also be trained in the use of information and communication technologies in the field of air protection.
Syllabus. Air pollution and prevention of pollution. Principles of fluid flow. Particle dynamics in the fluid. Distribution of particles and total efficiency rate of sample. Designing industrial ventilation system. Setting chambers. Inertial devices. Electrostatic precipitators. Wet scrubbers. Filters. Absorption devices.
Required Reading: Relevant literature in English, tbd

Weekly Contact Hours: 2	**Lectures: 3**	**Practical work: 2**

Teaching Methods: Teaching is performed with modern didactic means and methods, interactively in the form of lectures, laboratory and computational exercises. In addition to lectures and exercises, consultations are also regularly held. The lectures present the theoretical part of the material accompanied by characteristic examples for easier understanding of the subject matter. Students practically apply acquired knowledge during laboratory exercises by using of available laboratory equipment.
Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			