Course Unit Descriptor

Study Programme: Environmental Engineering And Occupational Safety Engineering

Course Unit Title: Hazardous materials and hazardous waste

Course Unit Code: ZR501

Name of Lecturer(s): Ubavin Dejan, Đatkov Đorđe

Type and Level of Studies: master

Course Status (compulsory/elective): compulsory

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: 5

Prerequisites: none

Course Aims:.

Introducing student to the basics of the hazardous waste and hazardous materials management. The course objective is to introduce students to the specifics of the hazardous waste management which comes from the hazardous material properties, as well as with technologies which help reduce or completely eliminate negative impact of dangerous materials to people`s health and environment.

Learning Outcomes:

Students acquire knowledge necessary to understand the hazardous waste properties, specifics about handling and contemporary ways of hazardous waste management. Mastering this course enables students to safely handle hazardous waste and to understand project criteria for temporary and permanent hazardous waste storage design.

Syllabus.

Lectures in theory: Legislation related to the hazardous waste management in our country and in EU with a special emphasis on the Basel Convention, Defining the properties of hazardous waste and introduction to the physical, chemical, and other properties of hazardous waste, Transportation system and vehicles for hazardous waste transportation, Methods of recycling, Selection of the hazardous waste storage containers, Designing the temporary hazardous waste storage, Designing permanent hazardous waste landfills, Selection of the location for hazardous waste disposal. Methods of hazardous waste destruction. Financial implications of possible measures.

Required Reading:

Relevant literature in English, tbd

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

Teaching Methods:

Lectures, Auditory Practice and Consultations. Lectures: theoretical part of the course. Practice: they accompany lectures and deepen the knowledge by examples from the practice; students are further introduced to the rules of design of temporary and permanent hazardous waste storage, as well as to the ways of selection of hazardous waste storage containers.

Knowledge Assessment (maximum of 100 points):

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