Course Unit Descriptor

Study Programme: Environmental Engineering

Course Unit Title: Design and Planning in Environmental Engineering

Course Unit Code: Z401B

Name of Lecturer(s): Associate Professor Bogdana Vujic, PhD

Type and Level of Studies: Bachelor Academic Degree

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: 7

Prerequisites: None

Course Aims: Enabling students to participate and make designs in the field of environmental protection. The course objective is to introduce students to the characteristics of the environmental protection necessary for understanding and creating designs of this sort. By application of previously acquired knowledge and interpretation of law regulations and knowledge from this course, students should be able to participate in designing ecological projects.

Learning Outcomes:

Acquired knowledge should enable students to understand the character of ecological projects and to be able to participate in making designs in the field of environmental engineering. By mastering the course, students should understand the character of projects in full: Impact assessment on the living environment, Risk assessment of chemical accidents on the living environment, Environment due diligence, Pollutants inventory and using additional knowledge students will be able to participate in designing such projects.

Syllabus:

Theory

Pollution inventory, Local ecological and action plan, Characterization and history of ecological projects, ISO 14000, Impact assessment on the environment, Strategic impact assessment on the environment, Environment due diligence, Risk assessment of chemical accidents, Risk assessment for human health

Practice

During practice adequate examples from the theoretical lectures are elaborated. Students participate in making projects on numerous examples. During computer practice, students are trained to work on software tools for different types of calculations and simulations necessary for designing projects.

Required Reading:

1. Mihajlov,A., Vujić, G. Procena opasnosti od hemijskog udesa Skripta, interno izdanje FTN 2005

2. Ed. David H.F; Liu & Bela G. Liptak Environmental Engineer's Handbook Boca Raton: CRC Press LLC 1999

3. Goran Vujić, et all. Priručnik za izradu procene stanja životne sredine pri investicionim operacijama (EDD, Pro. Ut. P.R.) P FTN Novi Sad 2002

4. UNESCO, Metodological guideelines for the integrated Environmental evaluation of water resources development, Paris 1987

5. Bogdanović, S., Nojković, S., Vesić, A. Vodič kroz postupak procene uticaja na zivotnu sredinu, Ministarstvo nauke i zaštite životne sredine Republike Srbije 2005

6. Peter Wathern. Environmental Impact Assessment, Theory and practice, Taylor & Francis 2004			
Weekly Contact Hours: 8	**Lectures: 4**	**Practical work: 4**	
Teaching Methods: Lectures and students group work			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	**Final exam**	points
Active class participation	5	oral exam	10
Coloquium 1	12		
Coloquium 2	13		
Referat	60		