Course Unit Descriptor

Study Programme: Environmental Engineering

Course Unit Title: Water Treatment Methods and Technologies

Course Unit Code: Z417

Name of Lecturer(s): Assistant Professor Visnja Mihajlovic, PhD

Type and Level of Studies: Bachelor Academic Degree

Course Status (compulsory/elective): Elective

Semester (winter/summer): Summer

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:

Enabling students to acquire theoretical and practical knowledge of procedures and wastewater treatment plants**.**

Learning Outcomes:

A student should use the acquired knowledge in further studies and other complementary areas, for the purpose of solving various practical problems effectively.

Syllabus:

Theory

Introductory definitions (concept of pollution and water protection). Legislation and limits (GHVI) of water pollution. The characteristics of wastewater (physical, chemical and biological). Classification of water (the water I, II, III and IV class). Fundamentals of wastewater treatment processes (mechanical, chemical and biological). Basic methods of sludge treatment and sludge disposal.

Practice

Exercises accompanying the lectures are concerned with typical assignments and practical examples. Apart from lectures and exercises, consultations are regularly held.

Required Reading:

1. David Hendricks, Fundamentals of Water Treatment Unit Processes: Physical, Chemical, and Biological, CRC Press 2016

Weekly Contact Hours: 4	**Lectures:** 2	**Practical work:** 2

Teaching Methods:

Lectures and students group work

Knowledge Assessment (maximum of 100 points): 100

Pre-exam obligations	points	**Final exam**	points
Active class participation	10	written exam oral exam	70
Test I and Test II	20		