Study Program : Urban Engineering

Type and level of studies: Bachelor

Course unit: Solid Waste Management

Teacher in charge: Nebojša Jovičić

Language of instruction: *English*

ECTS: 6

Course requirements: Energy and environmental management

Semester *Summer Semester*

Course unit objective

- To introduce the students to the basics elements of integrated solid waste management
- To give the students necessary knowledge and skills for design and conducting sustainable locale and regional strategy for solid waste management.

Learning outcomes of Course unit

After finishing the course students will be able:

- To recognize the significance of integrated solid waste management,
- To analyze competently low regulation in the area of solid waste management,
- To conduct procedure of making sustainable locale and regional plans for solid waste management.

Course unit contents

Theoretical classes

Basics of Solid Waste Management. Definitions and basic concepts. Integrated Waste Management. Sources, the characteristics and the amount of solid waste. Waste collection. Transport of waste. Transfer of waste. The reduction of waste. Recycling. Composting. Waste disposal. Sanitary landfills. Thermal treatment of waste

Legal framework. Responsibilities in waste management. National regulations. The regulations of the European Union

Municipal solid waste. Status of municipal waste in Serbia. Assessment of the future status

Practical classes

Techno-economic analysis of waste collection and transport

Assessment of environmental impact of solid waste management using modern software tools (EaseTech)

Optimization of solid waste collection by using ArgGIS software

Literature

George Tchobanoglou, Frank Kreith, Handbook of Solid Waste Management, Second Edition Copyright / Pub. Date: 2002 The McGraw-Hill Companies, Inc

Number of active teaching hours				**Other classes**
Lectures: 2	Practice: 2	Other forms of classes	Independent work:	

Teaching methods

Teaching is done through lectures, exercises and independent work of students. In the lectures, students obtain basic information. In the exercises, students acquire practical knowledge and skills to make local and regional plan for solid waste management.

Examination methods (maximum 100 points)

Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	**10**	oral examination	
practical classes/tests		written examination	**30**
Seminars/homework	**30**	.....	
Project	**30**		
Other			

Grading system

Grade	**No. of points**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**0-50**	Failing