Study program: Industrial Engineering

Course title: Recycling Technologies

Professor/assistant: PhD Boban Cvetanović/Petar S. Đekić

Type of course: elective

ECTS credits:5

Pre-requisites: -

Aims of the course:

Students acquire basic knowledge about various recycling technologies for different types of waste and on the basis of that knowledge they should recognize, separate and prepare for recycling and / or disposal the materials derived from different products and processes.

Learning outcomes:

Students acquire the knowledge they need to assess and explain the properties of certain types of waste and the specificities related to their handling and waste management. Studying the materials for this course, should enable students to analyze the recycling processes and technologies that are used in such processes

Syllabus

Theoretical part:

Introductory considerations, characteristics and types of waste. Legislation related to the waste management sector in Slovenia and the EU. The concept and importance of recycling, as an option for waste treatment. Recycling technologies. Recycling paper and glass. Recycling the tire. Recycling plastic. Recycling of metal waste and building materials. Recycling of electronic and electrical waste. Recycling of medical waste. Transport systems and vehicles for collection and transport of waste.

Practical part:

Exercises that follow the lectures and the study material are developed by using examples from good practice. Seminar papers and student visits to companies provide excellent preparation for the final exam where the student has to show the knowledge he/she acquired and the skills he/she developed.

Literature

1. Hodolič et all., *Reciklaža i reciklažne tehnologije*, FTN Novi Sad, 2011.
2. Službeni glasnik RS br. 36/09 i 88/2010, *Zakon o upravljanju otpadom*, 2010.
3. Ministarstvo životne sredine i prostornog planiranja, *Strategija upravljanja otpadom za period 2010-2019.g.*, 2010.

Number of active classes			Other forms of teaching:
Lectures: 2	Practical classes: 3	Research work:	

Teaching methods Combined, interactive approach with practical problem solving.

Grading system (maximum 100 points), **grading scale**from 5 to 10: below 51 points grade 5, grade 6 from 51-60 points, grade7 from 61-70 points, grade8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91-100 points.

Pre-exam obligations	**points**	**Final exam**	**points**
activity during theoretical lectures	**5**	written exam	**40**
practical training	**15**	oral exam	
colloquium(s)/seminar papers	**40**		
Sum	**60**	**Sum**	**40**