

Study program: Ecological Engineering				
Course title: Recycling and Use of Waste Materials				
Professor/assistant: Milosav Đ. Đorđević, Snežana Vrekić				
Type of course: Elective				
ECTS credits: 7				
Prerequisites: none				
Aims of the course: Students gain knowledge about recycling waste materials made in the process of industrial production. Students become familiar with the processes of using and maintaining products after its life cycle, and ways of returning it into life cycle.				
Learning outcomes: After completing the course, the student will be trained to select and apply the most appropriate methods for managing flows and technologies of sorting and processing waste materials, in order to reuse after reparation, use in the form of secondary raw materials or for generating energy.				
Syllabus: <i>Theoretical part:</i> <ol style="list-style-type: none"> 1. Basic terms and definitions 2. Regulations on waste materials 3. Product life cycle 4. Waste collection facilities 5. Disassembly factories 6. Factories for product reparation 7. Technologies for classification of waste 8. Technologies for processing used products 9. Thermochemical recycling technologies 10. Obtaining energy from waste materials 11. Storage of useless waste 12. Managing Recycling Systems <i>Practical part:</i> Auditory and laboratory exercises				
Literature: <ol style="list-style-type: none"> 1. Đorđević M., Štampani materijal sa predavanja, 2014. 2. Pavlović M., Ekološko inženjerstvo, TF "Mihajlo Pupin" Zrenjanin, 2004. 3. Zavargo Z., Održavanje tehnologije, Tehnološki fakultet, Novi Sad, 2009. 4. Limbachiya M., Roberts J, Sustainable Waste Management and Recycling: Challenges and Opportunities, Kingston University, 2004 5. Weinberg A.S., Pellow D.N., Schnaiberg A. Urban Recycling and the Search for Sustainable Community Development, Princeton University Press. Princeton, 2000. 				
Total number of active classes: 6		Lectures: 3	Practical classes: 3	
Teaching methods: Lectures – presentations, active participation of students Practice – writing term papers, problem solving discussions. Consultations.				
Grading system (maximum 100 points) grading scale from 5 to 10: below 51 points grade 5, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 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 lectures		5	Oral exam	50
Practical training		5		
Written tests		20		
Term papers		10		
Minimum requirement for the final exam		30		