

Study program: Industrial engineering – Mechanical engineering			
Course title: Basics of Sustainable Development			
Professor/assistant: Đorđević Milosav, Kokić Arsić Aleksandra			
Type of course: Compulsory			
ECTS credits: 5			
Prerequisites: none			
Aims of the course: Students gain knowledge about modern concept of sustainability, with the basic principles and key elements on which this concept is based, and master the methods for determining and applying results in sustainable development.			
Learning outcomes: The student uses indicators and criteria of sustainable development and applies the LCA method for evaluating products and processes, and uses engineering measures in the rational use of nature and natural resources of raw materials.			
Syllabus: <i>Theoretical part:</i> Basic concepts and definitions; Basic principles of sustainable development; EU sustainable development strategy and national sustainable development strategy; Indicators and criteria of sustainable development; Life cycle analysis – LCA; Sustainable development and use of energy in urban areas; Sustainable development and the environment in urban areas; Sustainable development and natural resources of raw materials; Managing sustainable development in urban areas; Quality management for the sustainable development of urban areas; Responsible behavior for the sustainable development of urban areas; Modern technologies and sustainable development of urban areas; Product development for sustainable development of urban areas. <i>Practical part:</i> Practical exercises and term papers.			
Literature: 1. Đorđević M., Održivi razvoj urbanih sredina, Nastavna publikacija-skripta, Kragujevac, 2012. 2. Mihajlov A. Odras za budućnost, HESPERIAedu, Beograd, 2007. 3. Bogdanović R., Ka održivom gradu; strategije i metode za unapređenje kvaliteta okruženja u gradovima, Saobraćajni fakultet, Beograd, 2002 4. Kabinet predsednika Vlade za evropske integracije, Putokaz ka održivom razvoju, Zbornik radova, Beograd, 2011. 5. Radulović J., Bošnjak M., Spariousu T., Kotlica.S, Simić J., Pantović M., Krunic-Lazić M, Koncept održivog razvoja, Beograd, 1997;.			
Total number of active classes: 45		Lectures: 30	Practical classes: 15
Teaching methods: Lectures: interactive approach; Practical classes: preparation of term papers, solving specific problems. 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	max 5	Oral exam	50
Practical training	max 5		
Written test(s)	max 20		
Term papers	max 20		
Minimum requirement for the final exam	30		