

Table 5.2. Specification of the subject

Study program: <i>Forestry and Natural Resources Management</i>			
Name of the subject: Bioeconomy in Forestry			
Teacher: Ljiljana Keča , assistant: Nedeljković Jelena			
Case status: Elective			
ECTS points: 5			
Condition: /			
The aim of course The main goal is to provide the necessary knowledge in the part of bioeconomy and circular economy. The special emphasis is on natural resources, especially on forests, and monitoring of dynamic changes in the bioeconomy of different regions (resulting from the effects of natural and anthropogenic factors, especially in the conditions of globalization of the world economy important for the field of forestry (especially wood) products.			
The outcome of the subject Disposing of knowledge that will enable to successfully assess elements related to bioeconomy from the point of view of economic value in forestry. Special emphasis is on the concepts related to the circular economy, the factors and the context of the development of bioeconomics: dependence on resources, endurance, properties and use with a special emphasis on forestry (from "spin-off" to mature business patterns), commercialization of forest products and creation of value chain.			
Content of the course <i>Theoretical teaching</i> 1. Introduction to the concept of bioeconomy, historical development and its trans-interdisciplinary orientation; 2. Ecoclimate regions on the Earth and vegetation (climatic zones and their arrangement on the planet); 3. Ecoclimatic zone and vegetation relationship and their relationship with bioeconomy; 4. Schedule of vegetation according to ecoclimatic bands, natural resources, schedule and structures of forest resources on Earth and their relationship to the value chain; 5. Stakeholders related to bioeconomy in forestry; 6. Primary production (sources of wood raw materials in the world, commercial types of trees by regions); 7. Production related to natural resources (economic significance of forests, forests as a source of raw material of wood, forests as sources of other types of raw materials and products) 8. Use of wood and other products from the forest, forestry as economic area, economic importance of forestry and forest; 9. Market and sustainability, bioeconomic modeling and resources related to bioeconomics (implementation of scenarios) 10. Environmental economy (ecological significance of forests) and link to bioeconomy; 11. Examples of good practice for individual countries (wood producers, regions of the largest consumption of wood and consumption patterns, individual countries - consumers of wood and other forest products); 12. Possibility for development of the concept of bioeconomy in Serbia (commercial types of trees in Serbia, contribution of forestry to the Serbian economy), examples related to PES analysis; 13. Import and export of wood and other forest products from Serbia; 14. production and consumption of wood (natural expression of production by assortments and types of trees, value expression of production by assortments and types of trees, natural expression of wood consumption, value expression of wood consumption, production balance and consumption of wood); 15. Economic growth, development and innovation (transformation through bioeconomy) and link to forestry. <i>Practical teaching /</i>			
Literature Kea, Elk., Kea N., Marčeta M. (2015): Nedrvni šumski proizvodi, Socio-ekonomski i ekološki aspekti, Univerzitet u Beogradu, Šumarski fakultet (ISBN 978-86-7299-232-8), (270) Lewandowski I. (eds.) (2017): Bioeconomy, Shaping the Transition to a Sustainable, Biobased Economy, University of Hohenheim, Stuttgart, Germany Springer, Cham, p. 2, https://doi.org/10.1007/978-3-319-68152-8_4 (358) Pešić R. (2012): Ekonomika životne sredine i prirodnih resursa, Zavod za udžbenike, Beograd (165) Ранковић Н. (1996): Економика шумарства, Шумарски факултет Универзитета у Београду, Београд Кеча Јб. (2014): Економика шумарства, Практикум са изводима из теорије и решеним задацима, Универзитет у Београду, Шумарски факултет, Планета принт, Београд (142) Leal F. W., Pociovălișteanu, D. M., de Brito, P. R. B., De Lima, I. B. (Eds.). (2018): Towards a Sustainable Bioeconomy: Principles, Challenges and Perspectives. Springer International Publishing (564).			
Number of active lectures	Theoretical classes: 2	Practical teaching: 2	
Methods of teaching Lectures and independent work of students (creating and oral presentation of presentations).			
Оцена знања (максимални број поена 100)			
Pre-exam obligations:	Points	Final exam	Points
activity during lectures	15	written exam	
practical teaching		oral exam	50
colloquium(s)		
seminar(s)	35		