



## Subject card

Subject name and code	Forest Management, PG_00048976						
Field of study	Green Technologies						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2021/2022		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			English		
Semester of study	2	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		mgr inż. Piotr Kamiński				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		5.0		15.0	50
Subject objectives	Sustainable Forest Management as a forestry innovation. Forest as a source reduction. Environmentally preferred purchasing in Forestry.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_K04] is able to participate in the preparation of social projects (economic, civil, political) taking into account the economic, legal and political		Actively participates in the socialization of forest management.		[SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills		
	[K7_W05] has a broader knowledge of the advanced concepts and problems of quality management, application of the principles of work organization and integrated management and the knowledge necessary to understand the social, economic, legal and other non-technical considerations engineering activities, knows the basic principles of health and safety in force in environmental		Identify the economic aspects of sustainable forest management		[SW1] Assessment of factual knowledge		
	[K7_W06] has a advanced knowledge of knowledge of the principles of sustainable development as well as national and European environmental management conditions, in the protection of intellectual property and patent law		The action is guided by the principles of sustainable development.		[SW1] Assessment of factual knowledge		

Subject contents	<p><b>History of forestry</b></p> <p>Slash and burn farming, silviculture, , industrial forestry, clear-felling, origins of forestry and sustainability principles, modern forestry, social forestry, multiple use forestry, sustainable forest management.</p> <p><b>Sustainability principles in forestry</b></p> <p>Multi-functional forestry (FMF), Sustainable Forest Management (SFM), International Model Forest Network (IMFN), Promotional Forest Complex PFCs Polish idea of IMFN.</p> <p><b>Sustainable Forest Management as a forestry innovation</b></p> <p>Productive forests functions: silviculture, forest protection and utilization, wood product, non- wood product. Protective forests functions: soil and water protection, biodiversity, climate change mitigations, nature and landscape conservation.</p> <p>Social forests functions: recreation, tourism, education, rural development, enrich the labor market, public goods, ecosystem services.</p> <p><b>Forest as a source reduction</b></p> <p>Forest and landscape restoration: land degradation, deforested landscapes, restoring and rehabilitating forests, integrating trees and agricultural landscape, pattern of land use.</p> <p>Urban forestry: street trees, park trees, urban forest, protection healthy, retaining trees od development sites.</p> <p><b>Environmentally preferred purchasing</b></p> <p>Forestry certification: compliance with laws, community relations and workers rights, benefits from the forest, environmental impact, management plan, maintenance of high conservation value forests,.</p> <p>Eco labeling: sustainable forestry initiative, chain of custody, certified forests.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written exam	75.0%	100.0%

Recommended reading	Basic literature	<ol style="list-style-type: none"> <li>1. Forestry 2011, Central Statistic Office, Warsaw 2011</li> <li>2. The State of the Worlds Forests 2011, FAO, Rome 2011</li> <li>3. Climate change for Forest Policy Maker, FAO Rome 2011</li> <li>4. Partnerships to Success in Sustainable Forest Management, International Model Forest Network, Canada, Ontario 2005</li> <li>5. Forestry Resources Assessment 2010, FAO, Rome 2010</li> <li>6. Gane Michael ,Forest Strategy Strategic Management and Sustainable Development for the Forest Sector, Springer, Dordrecht, The Netherland 2007</li> <li>7. Ecosystem Services in European State Forest, EUSTAFOR, June 2011</li> <li>8. European Forestry in the Face of Climate Change Eustafor Guidelines, EUSTAFOR, December 2010</li> <li>9. Mobilisation and efficient use of wood residues for energy generation, Report to the Standing Forestry Committee by the Standing Forestry Committee ad hoc Working Group II, July 2008</li> <li>10. TEEB The Economics of Ecosystems and Biodiversity for National and International Policy Makers Summary: Responding to the Value of Nature, Wesseling, Germany 2009</li> <li>11. Gerald W. Williams, The USDA forest service the first century, USDA Forest Service Office of Communication Washington DC, April 2005</li> <li>12. UNECE, FAO, The European Forest Sector Outlook Study II 2010-2030, Geneva 2011</li> <li>13. The Forestry Wood Chain: The impact of EU research (1998-2004), European Communities 2004</li> <li>14. Tosia - a tool for sustainability impact assessment of the forest-wood chain, EFORWOOD 2009</li> <li>15. A Strategic Research Agenda for Innovation, Competitiveness and Quality of Life Forest Based Sector Technology Platform, Brussels 2006</li> <li>16. FAO, Forest products annual market review 2010-2011, Geneva Timber and Forest Study Paper 27, Geneva 2011</li> <li>17. Review of instruments and valuation methods for multifunctional forest policy, POLFOREX, Warsaw 2009</li> <li>18. Work Programme , MCPFE, Warsaw, November 2007</li> <li>19. Payment for Ecosystem Services Getting Started A Primer, The Katoomba Group, 2008</li> <li>20. UE Forest Action Plan, Communication from the Commission to the Council and The European Parliament, Brussels 15.06. 2006</li> <li>21. Ostrom E., Gardner R., Walker J., Rules, Games and Common-Pool-Resources, The University of Michigan Press, Michigan March 1994</li> <li>22. Hamilton H., Slash and Burn in the history of the Swedish Forests, Rural Development Network 21, Overseas Development Institute, London 1997</li> <li>23. Yrjola T., Forest management guidelines and practices in Finland, Sweden and Norway European Forest Institute, Internal Report No. 11, EFI Finland 2002</li> <li>24. PROFOR. Forest Institutions In Transition. Experiences and Lessons from Eastern Europe, PROFOR at the World Bank, Washington 2005</li> <li>25. Building a Green Infrastructure for Europe, ISBN 978-92-79-33428-3, European Union 2013</li> <li>26. Forestry Handbook for British Columbia Fifth Edition, PDF Part 1, Published by The Forestry Undergraduate Society Faculty of Forestry University of British Columbia, Vancouver 2013</li> <li>27. Unasylva vol.66 2015/3, Forest and landscape restoration, FAO <a href="http://www.fao.org/forestry/unasylva">www.fao.org/forestry/unasylva</a></li> <li>28. State of the Worlds Forests Enhancing the socioeconomic benefits from forests, FAO Rome 2014</li> <li>29. Forest and water international momentum and action, FAO, Rome 2013</li> <li>30. Forest and energy Key issues FAO, Rome 2008</li> <li>31. Sustainable financing for forest and landscape restoration opportunities, challenges and the way forward, FAO, Rome 2015</li> <li>32. Forest and economic development: A Driver for the Green Economy in the ECE Region, UN, New York and Geneva 2013</li> <li>33. Ekologiczne podstawy hodowli lasu. S. Szymański. 1986</li> <li>34. Ekologiczne podstawy siedliskoznawstwa leśnego. T. Puchalski i Z. Prusinkiewicz. 1990</li> <li>35. Siedliskowe podstawy hodowli lasu. Dyrekcja Generalna Lasów Państwowych. 2004</li> <li>36. Charakterystyka hodowlana drzew leśnych A. Jaworski. 1995</li> </ol>
	Supplementary literature	not applicable
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	