Politechnika Białostocka

Szkoła Doktorska

COURSE DESCRIPTION CARD

Course name	Impact of globalization and international trade on forest ecosystems and methods of threat assessment				
Course type	Optional	**Course code**	**SDPB0125**	**ECTS credits**	1
Forms and number of hours	Lecture: 10 h.	**Scientific discipline**	Forest sciences		
Course objectives	Familiarizing doctoral students with methods of analyzing the risk of introducing and establishing foreign, invasive organisms in Europe.				
Course content	1. Threats to forest ecosystems from globalisation and international trade, including plant material. 2. History of unintentional introduction of new invasive organisms into the EU. 3. EFSA and EPPO as biohazard monitoring organisations. 4. Categorisation of pests and pest risk assessment method (PRA). 5. Compilation of lists of quarantine organisms and EU legislation				
Teaching methods	Multimedia presentation, informative lecture, tasks to be completed independently				
Assessment method	Passing the lecture				
Symbol of learning outcome	**Learning outcomes**		**Reference to the learning outcomes for the field of study for the 8th level of Polish Qualification Framework (PRK)**		**Methods of assessing the learning outcomes**
LO1	The doctoral student has knowledge about threats to forests resulting from international trade.		SD_W1, SD_W5		Passing the lecture
LO2	The PhD student is able to discuss methods for assessing the transfer and establishment of pests in the EU.		SD_U1		Passing the lecture

LO3	Depending on the biohazard, the doctoral student is able to select an appropriate risk assessment method and propose countermeasures.	SD_U1, SD_U8	Passing the lecture

Student workload (in hours)	
Lecture	10 / 0 / 0 / 0 / 0
Consultations	5
The unassisted student work	15
Implementation of project tasks and preparation for and participation in exams/test	10
Total	40
ECTS credits	1

Basic references	1. Brasier, C. M. (2008). The biosecurity threat to the UK and global environment from international trade in plants. Plant Pathology, 57(5), 792-808. 2. Potter, C. (2013). A Neoliberal Biosecurity?: The WTO, free trade and the governance of plant health. In Biosecurity (pp. 123-135). Routledge. 3. Hulme, P. E. (2021). Unwelcome exchange: International trade as a direct and indirect driver of biological invasions worldwide. One Earth, 4(5), 666-679. 4. Liebhold, A. M., Brockerhoff, E. G., Garrett, L. J., Parke, J. L., & Britton, K. O. (2012). Live plant imports: the major pathway for forest insect and pathogen invasions of the US. Frontiers in Ecology and the Environment, 10(3), 135-143. 5. Panzavolta, T., Bracalini, M., Benigno, A., & Moricca, S. (2021). Alien invasive pathogens and pests harming trees, forests, and plantations: Pathways, global consequences and management. Forests, 12(10), 1364..
Supplementary references	1. Self, M. (2003). Biosecurity: the implications for international forestry trade. Understanding the Variables that Affect Australian Hardwood Woodchip Export Performance–Perceptions and Lessons from the International Business Management, 60. 2. Colunga-Garcia, M., Haack, R., Magarey, R., & Borchert, D. (2013). Understanding trade pathways to target biosecurity surveillance. NeoBiota, 18, 103. 3. Dahlstrom, A., Hewitt, C. L., & Campbell, M. L. (2011). A review of international, regional and national biosecurity risk assessment frameworks. Marine Policy, 35(2), 208-217. 4. Webber, J. (2010). Pest risk analysis and invasion pathways for plant pathogens. New Zealand Journal of Forestry Science, 40, S45-S56. 5. Hulme, P. E. (2009). Trade, transport and trouble: managing invasive species pathways in an era of globalization. Journal of applied ecology, 46(1), 10-18.
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