

Numer modułu zgodnie z planem studiów	MOR S2_21.1
Field or fields of study	Plant Protection and Phytosanitary Control
Name of the training module	Mycotoxins and toxinogenic fungi
Language of instruction	English
Type of the training module (obligatory/optional)	optional
Form of studies	Full-time Studies,
Level of education	2-nd cycle of studies
Year of study	II
Semester	2
Number of ECTS credits with a division into contact/noncontact	3 (1,6/1,4)
Title/degree, name and surname of the person in charge	Dr hab. Elżbieta Mielniczuk, prof. uczelni
Unit offering the subject	Department of Plant Protection
Aim of the module	To acquaint students with toxinogenic fungi species, toxins produced by these fungi and their effects on plants, animals and human
Contents of the training module-a compact description of approx.	Environment as a place of occurrence of toxinogenic fungi, factors affecting the production of mycotoxins. Pathways of mycotoxicosis appearance, ergotism and other serious human mycotoxicosis. Phytotoxic influence of secondary metabolites of toxinogenic funguspecies of the genera Gibberella and Fusarium. Trichothecenes - producing them pathogens, harmfulness to the warm-blooded organisms. Occurrence and biological activity of selected species of fungi from the type Ascomycota. Characteristics of selected species of the order Eurotiales, zootoxicity and phytotoxicity of secondary metabolites of these fungi. Methods of isolation of toxinogenic fungi from the plant material. Breeding methods of anamorphic and teleomorphic stages of toxinogenic fungi. Characteristic of the macro an microscopic features of toxinogenic fungi species. Chemical methods used in the qualitative and quantitative determining of toxic secondary metabolites of fungi.
Recommended and obligatory reading list	<ol style="list-style-type: none"> 1. Smith J. E., Moss M. O. 1985. Mycotoxins – Formation, Analysis and Significance. 2. Desjardins A. E. 2006. Fusarium Mycotoxins Chemistry, Genetics, and Biology. The American Phytopathological Society St. Paul, Minnesota USA 3. de Koe W. J., Samson R. A., van Egmond H. P., Gilbert J., Sabino M. ed. 2001. Mycotoxins and phycotoxins in perspective at the turn of the millennium. Ponsen & Looyen, Wageningen, The Netherlands. 4. Mycotoxins: Risks in Plant, Animal and Human Systems. 2003. Council for Agricultural Science and Technology. Ames, Iowa, USA No.139. <p>Keys and monographs used in the identification of fungi</p>

	and scientific publications
The intended forms/activities/teaching methods	Lectures, laboratory classes, discussion