

Course Unit Descriptor

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|---|--------------------|--------------------------|
| <b>Study Programme:</b> Agronomy  |                    |                          |
| <b>Course Unit Title:</b> Mycotoxins  |                    |                          |
| <b>Course Unit Code:</b> 19.AGR073  |                    |                          |
| <b>Name of Lecturer(s):</b> Igor M. Jajić, PhD, Full Professor  |                    |                          |
| <b>Type and Level of Studies:</b> Doctoral Academic Studies   |                    |                          |
| <b>Course Status (compulsory/elective):</b> elective  |                    |                          |
| <b>Semester (winter/summer):</b> winter   |                    |                          |
| <b>Language of instruction:</b> Serbian   |                    |                          |
| <b>Mode of course unit delivery (face-to-face/distance learning):</b> face-to-face  |                    |                          |
| <b>Number of ECTS Allocated:</b> 10   |                    |                          |
| <b>Prerequisites:</b> None  |                    |                          |
| <b>Course Aims:</b><br>Acquisition of knowledge about production of mycotoxins, their metabolism in the animal body and negative effects of their residues in animal products.  |                    |                          |
| <b>Learning Outcomes:</b><br>Qualification of candidates for further research in the field of mycotoxins and food safety. The ability to expand and transfer the knowledge into scientific research teams and organizations dealing with food safety.   |                    |                          |
| <b>Syllabus:</b><br><i>Theory</i><br>The origin and physical-chemical properties of mycotoxins. Molds as producers of mycotoxins. Metabolism of mycotoxins. Biological effects and toxicity of aflatoxin, ochratoxin, zearalenone and deoxynivalenol in animal body. Mycotoxins distribution in food chain. Mycotoxin residues in foodstuff of animal origin. Mycotoxin adsorbents and other methods of animal feed decontamination. Legislation in Serbia and the European Union. Preventive action in order to inhibit the production of mycotoxins in plant material.<br><i>Practice</i><br>Chromatographic methods:liquid chromatography -determination of mycotoxins (aflatoxins, zearalenone, ochratoxin Aand deoxynivalenol).                      |                    |                          |
| <b>Required Reading:</b><br>Diaz, D. (Ed): The Mycotoxin Blue Book, Nottingham University Press, 2005.<br>D’Mello, J.P.F. (Ed): Food Safety: Contaminants and Toxins, Cab International, 2003<br>IgorJajić: Kvalitetibezbednoststočarskihproizvoda (Praktikum), 2013.<br>Sinovec, Z.J., Resanović, R.M., Sinovec, S.M.: Mikotoksini – pojava, efektiiprevencija, Fakultetveterinarske medicine, Beograd, 2006.<br>Šarkanj, B., Delaš, F., Klapac, T., VasićRački, Đ.: Kemijskeifizikalneopasnostiuhrani, Hrvatskaagencijazahranu, 2010.<br>Havranek, J., TudorKalit, M. isar.: Sigurnosthrane - odpoljadostola, 2014.<br>Milićević, D.: Mikotoksiniulancuhrane - hemijski, biološkiizdravstveniaspekt, Institutzahigijenuitehnologijumesa, Beograd, 2016. |                    |                          |
| <b>WeeklyContact Hours:</b>   | <b>Lectures:</b> 3 | <b>Practical work:</b> 5 |
| <b>Teaching Methods:</b>  |                    |                          |

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|--|--------|-------------------|--------|
| Lectures, Practical classes, Consultations, study, research work   |        |                   |        |
| <b>Knowledge Assessment (maximum of 100 points):</b>   |        |                   |        |
| <b>Pre-exam obligations</b>  | points | <b>Final exam</b> | points |
| Active class participation   | 5      | written exam      |        |
| Practical work   | 5      | oral exam         | 50     |
| Preliminary exam(s)  | 40     | .....             |        |
| Seminar(s)   |        |                   |        |
| The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc. |        |                   |        |