SYLLABUS

1. Course title:

Residues and contaminants in food

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

3

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

Recommended previous courses in: organic chemistry, biochemistry, instrumental methods

7. Class restrictions:

does not have

8. Duration / semester:

1 6

9. Weekly contact hours:

9.1. Lectures: 2

9.2. Seminars: 0

9.3. Laboratory/Practice classes: 1

10. Faculty:

Technology

11. Department/study program:

Food Technology and Quality and Food Safety; Environmental engineering

12. Lecturer:

dr.sc. Midhat Jašić

13. Lecturer's e-mail:

jasic_midhat@yahoo.com

14. Web site:

www.hranomdozdravlja.com

15. Course aims:

The main goal is to acquire knowledge about contaminants in food. The specific objectives are:
1. Construction of a professional approach to solving the problem of safe food production.
2. Development of knowledge about the toxic substances in food that is multidisciplinary leaning on the gained knowledge from organic chemistry, biology, biochemistry and instrumental methods.
3. Developing the ability to use the terminology of communication and presentation in the field of knowledge of residues and contaminants in food.
4. Positioning objects "residues and contaminants in food" in relation to other courses.

16. Learning outcomes:

Knowledge needed in the production of healthy food, with the risk analysis at all levels. Upon completion of the course students acquires the the basic skills necessary for establishing a management system for food safety.

17. Course content:

Introduction to the subject. Toxic substances in food. Residues treatment plants and animals and toxicities: chronic and acute toxicity. Allowable amounts of residues. The effect on the human body. Introduction to the types of residues and contaminants. Environmental contaminants and their residues. Pesticides and other residues treatment plants. Residues of the treatment of animals. Natural contaminants and their remains in feed. The contaminants produced during food processing. Residues detergent, disinfectant - sanitation. Heavy metals such residues. The migrating group of packaging and interaction of food and packaging. Genetically modified food. Preventing harmful effects of contaminants. Legal regulations. Standardized methods for determining the presence of residues. Ethics, self-awareness in food production.

18. Learning methods:

1. Lectures. Each methodological unit is developed according to the principle: theme, objectives, teaching strategies (lectures, discussions, discussion groups), educational issues, the sources of information-literature.
2. Laboratory exercises. Based on the acquisition of skills in the analysis of certain toxic substances that may be present in food.
3. Consultations. The teacher is available for consultation 2 hours per week during the lectures at the Faculty.

19. Assessment methods:

During the course assures permanent monitoring of the degree of the knowledge of students, as well as the monitoring of their activities. Students' work is monitored and evaluated continuously during the semester following the overall work and knowledge of students in all forms of teaching. Examination is done in writing and orally.
Written exams. Written exam is in the form of test combined with tasks and written responses. A student in the course of the lecture approach laying Tests I and II, and after the completion of every fifteen lectures.
Final exam. The final exam consists of an oral answer and defense seminars like the individual project. On the final exam there are two issues according to pre published list of questions. Student chooses a randomized questions. Seminar is done by pre-prescribed procedure of defense seminars.
Rating. Students who have met on the first and second test + final exam, the teacher will obtain a rating in the index after the completion of all obligations in the case (the signature of the teachers in the index). The requirement for a signature are performed duties attendance at schools in accordance with the rules of the University.
Reformatory exam. Additional examination approach the students who did not meet the test (I + II + final exam), and have done all obligations to the case (with the signature of the teachers in the index). The first is a written exam, if the student is not the same already successfully passed during the continuous assessment. Passed part of the written exam is recognized in subsequent examination periods during the same school year.
Notification. Communication on the results exam tasks is using the usual message boards. The test results can be sent via e-mail or verbally announce the students in a certain time for consultations.
Keeping of results the examination. Results of written examinations are kept before 1 of November following school year.

20. Assessment components:

The final grade is based on of results the continued activity, test, laboratory practice and the final exam. During attendance counts coming and activity of students in class with a maximum of 10 points. Tests during the course, after every 15 hours of lectures. Both maximum of 40 points. The passage of a minimum achievement of 22 points in both tests. Work in the laboratory a maximum of 20 points. The final exam is mandatory and carries 30 points.

21. Required reading list:

1. Jašić M., Begić L: Biochemistry of food, PrintCom d.o.o., Tuzla, 2008.
2. Klapec T.: Basics of of toxicology and food toxicology, Internal script, PTF Osijek, 2002.

22. Web sources:

www.hranomdozdravlja.com
Dabrovski W.M., Sikorski Z.E.: Toxins in food, CRC Press, Wash

23. Applicable starting from the academic year:

2015/2016

24. Adopted in the Faculty/Academy session:

(max. 10 char.)