

Food quality and safety (1st Year of study, 2nd Semester)

Credit value (ECTS) 8

Course category

Domain (Imposed)

Course holder:

PhD Assoc. Prof. Viorel-Cezar FLORIȘTEAN

Discipline objectives (course and practical works)

The course will help student to build specific knowledge necessary for the design, implementation and maintenance of food quality and safety management systems. The course also aims to develop the aptitude for critical analysis of food quality and safety problems, stimulate the formation of a pro-active attitude in solving problems of food quality and safety.

Acquired knowledge and skills will be useful to integrate food quality and safety issues in making decisions on the management of food industry organizations.

Contents (syllabus)

Course (chapters/subchapters)
Food quality and safety: History, purpose and responsibilities; Control, assurance and planning of food quality and food safety; The role of legislation in ensuring food quality and food safety.
Food quality management programs and systems: Total Quality Management; The role of standardization in ensuring food quality and food safety; Management of food quality in the context of ISO standards; Standards of ISO 9000 group: overview and characteristics of application in the food industry.
Food safety management programs and systems: HACCP - history, concept, purpose, significance, hazards and risks; HACCP principles; Implementation, validation and maintenance of the system. ISO 22000; HACCP and ISO 22000.
The quality of raw and auxiliary materials: Selection of suppliers of raw and auxiliary materials; Certification of the raw and auxiliary materials suppliers.
Process Control Technology: Objectives, methods of technological process control efficiency; Staff training; Checkpoints; Deviations from technical specifications; Deviations analysis.
Good manufacturing practice in the food industry
Risk analysis and food safety.
Official control and audit in the food industry: The role of official controls and audit in food quality and food safety assurance.

Practical works
Organization of practical (informing students on discipline objectives, the targeted skills, the evaluation criteria and methods).
Methods and tools used in total quality management: Cause and effect diagrams; Pareto charts; Histograms and control charts of the technological process; Scatter diagrams.
Applying statistical process control technology on issues of food quality and safety: Compilation and interpretation of charts from the process; Interpretation of diagrams.

Creating sample documentation related to the implementation of a generic quality management system in a food processing plant, in accordance with ISO 9001/2015.
Creating sample documentation related to the implementation of a generic HACCP system in a food processing plant.
Creating sample procedures related to good hygiene practices and sanitation in the food industry.
Verification of systems for quality management and food safety. Planning and performing of food quality and food safety management systems audit.

Bibliography

1. Mortimore, S., Wallace, C., 2001 - HACCP. Food industry briefing series, Blackwell Science, Malden, USA.
2. Stanciuc, N., Rotaru, G., 2008 - Managementul sigurantei alimentelor, Ed. Academica, Galati,
3. Surak, J.G. and S. Wilson, 2007 - The certified HACCP auditor handbook., ASQ Quality Press Milwaukee, USA.
4. Vasconcellos, J.A., 2004 - Quality assurance for the food industry : a practical approach. CRC Press, Boca Raton, USA.
5. Wallace, C., W.H. Sperber, and S. Mortimore, 2011 - Food safety for the 21st century : managing HACCP and food safety throughout the global supply chain. Wiley-Blackwel, USA.
6. Wareing, P., 2010 - HACCP : a toolkit for implementation. 2nd ed. ed., Cambridge: Leatherhead Publishing, UK.
7. SR EN ISO 22000:2018 - Food safety management systems -- Requirements for any organization in the food chain.
8. SR EN ISO 9001:2015 Quality management systems – Requirements.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Written and oral examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests.	40%

Contact

PhD Assoc. Prof. Viorel-Cezar FLORIȘTEAN

Faculty of Veterinary Medicine - Iasi University of Life Sciences (IULS)

8 Mihail Sadoveanu Alley, Iași, 700489, Romania

telephone: 0040 232 407372, fax: 0040 232 219113

E-mail: vfloristean@uaiasi.ro