

Food Authentication and Identification of Food Fraud (Fourth Year of Studies, Seventh Semester)

Credit value (ECTS): 3

Course category

Optional Courses

Course holder:

Assoc. Prof. Ionel BONDOC

Discipline objectives (course and practical works)

The course is aimed predominantly following objectives:

- Knowledge and application of specific notions in the field of food quality and authenticity, at the level of the three fundamental links of the agri-food chain - producers, processors, and consumers;
- Knowledge of the principles of adoption of consumer protection legislation, concerning food authentication and detection of food fraud - the European legislation and national legislation;
- Knowledge of the main types of foodstuffs fraud;
- Knowledge of the institutions and/or structures with attributions in the elaboration of the acquis communautaire regarding the authentication of food and the detection of food fraud;
- Knowledge of the European and national institutions and/or structures with responsibilities in verifying the application of European and national legislation on food authenticity and the detection of food fraud.

Within the practical applications (practical works), the following objectives are predominantly pursued:

- Knowledge of the principles and methods underlying the authentication of food products and the detection of the main types of fraud;
- Knowledge and presentation of the possibilities of counterfeiting the main food groups and especially of the modern possibilities of detecting fraud;
- Knowledge of the main means and techniques for detecting different forms of fraud applicable to food, from classic to modern;
- Knowledge of the main food groups subject to authentication in the European Union and in Romania; Knowledge of the main food groups subject to fraud in the European Union and in Romania;
- Participation in scientific and professional development projects, compatible with the requirements of integration into the national and European labor market.

Contents (syllabus)

Course (chapters/subchapters)
Food authentication in the European Union and our country: history, principles, application methods, and recent examples.
European and national institutions and structures with responsibilities for food authentication and the fight against fraud in the food chain. Motion for a European Parliament resolution on the food crisis, fraud in the food chain, and their control.
Food fraud: history, evolution, consequences on the economy, and consumers.

Adulteration of the principal foodstuffs: adulteration of meat and meat products; adulteration of milk and dairy products; adulteration of fish and fishery products; adulteration of honey.
Counterfeiting of other raw and processed food groups of major economic interest.
European and national institutions and structures with responsibilities in the field of consumer protection against counterfeiting.

Practicum/Seminar
Detection of major adulteration of meat and meat products by laboratory methods and techniques.
Detection of major adulteration of milk and dairy products by laboratory methods and techniques.
Detection of major adulteration of other food groups by laboratory methods and techniques.

References

- Ashurst P.R., Dennis M.J., 1997. *Analytical Methods of Food Authentication*. Springer-Verlag US, New York.
- Bernd van der Meulen, 2014. *EU Food Law Handbook*. Wageningen Academic Publishers, The Netherlands.
- Bondoc I., Şindilar E.V., 2002. *Veterinary sanitary control of food quality and hygiene*. Vol. I. "Ion Ionescu de la Brad" Iaşi Publishing.
- Bondoc I., 2015. *Foundations of Veterinary Sanitary and Food Safety Legislation*. Treatise, Vol. 1, First Edition. "Ion Ionescu de la Brad" Publishing House.
- Bondoc I., 2015. *Foundations of Veterinary Sanitary and Food Safety Legislation*. Treatise, Vol. 2, First Edition. "Ion Ionescu de la Brad" Publishing House.
- Bondoc I., 2020. *Food Authentication and Identification of Food Fraud*. Course Support. University of Agricultural Sciences and Veterinary Medicine Iasi.
- Ducauze C.J. (coord.), 2003. *Fraudes alimentaires: Approche réglementaire et méthodologique analytique*. Tec & Doc, Lavoisier, Paris (Collection Sciences & Techniques Agroalimentaires).
- Georgiou C.A., Danezis G.P., 2017. *Food Authentication: Management, Analysis and Regulation*. Wiley-Blackwell, Hoboken, New Jersey.
- Jha S.N., 2016. *Detection of Food Adulterants and Contaminants*. Theory and Practice. Academic Press, Elsevier, London.
- Lees M., 2003. *Food authenticity and traceability*. Woodhead Publishing Limited, Cambridge.
- Malik S., 2011. *Handbook of Food Adulteration and Safety Laws*. Eastern Book Company, New Dehli.
- Rees J., 2020. *Food Adulteration and Food Fraud*. Reaktion Books Ltd, London.
- Singhal R.S., Kulkarni P.R., Rege D.V., 1997. *Handbook of Indices of Food Quality and Authenticity*. Woodhead Publishing Limited, Cambridge.
- Sun D.W., 2008. *Modern Techniques for Food Authentication*. 1st Edition. Academic Press, Cambridge.
- Sun D.W., 2018. *Modern Techniques for Food Authentication*. 2nd Edition. Academic Press, Cambridge.

- ^{xxx}Specialized sites and publications:
- ^{xxx}Official Journal of the European Communities (Official Journal of the European Union), 1967-2020, Collection.
- Journal of Food Safety - [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1745-4565](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1745-4565);
- European Institute for Food Law - <http://www.food-law.nl/>;
- Comprehensive Reviews in Food Science and Food Safety - [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1541-4337](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1541-4337);
- Food and Drug Law Institute (<https://www.fdpi.org/>);
- Journal of Consumer Protection and Food Safety (<https://www.springer.com/journal/3>);
- Journal of Food Science Education - [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1541-4329](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1541-4329);
- Quality Assurance and Safety of Crops & Foods- [http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1757-837X](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1757-837X)
- <http://eur-lex.europa.eu>
- <https://foodsafetytech.com/food-fraud-resource-center/>
- <https://www.astaspice.org/food-safety/adulteration-and-food-fraud/>
- <https://foodprotection.umn.edu/research/adulteration-food>
- <https://www.publichealthnotes.com/food-adulteration-types-of-food-adulteration-and-mitigation-measures/>
- https://ec.europa.eu/knowledge4policy/food-fraud-quality/food-fraud-database_en
- <https://www.foodfraudadvisors.com/food-fraud-risk-information/>
- <https://www.digicomply.com/food-fraud-watch>
- <https://foodsafetytech.com/food-fraud-resource-center/>
- https://ec.europa.eu/food/sites/food/files/safety/docs/food-fraud_network_activity_report_2018.pdf
- https://ec.europa.eu/food/sites/food/files/safety/docs/ff_ffn_annual-report_2019.pdf

Evaluation (Final Evaluation)

Evaluation type	Evaluation Methods	The percentage from the final grade
Exam	Written and Oral	60%
Individual activity during the respective semester	Oral	20%
Preparation and support of a specialized paper with a predetermined topic	Written and Oral	20%

Contact person

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