**Economics of quality and safety**

# Prof. Ester Pietta-Prof. Daniele Moro

**Module 1 –Product and process certification**

Prof. Ester Pietta

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to illustrate the essential elements and methodologies for the management of food quality and safety all along the agri-food supply chain, in accordance with the main requirements laid down by the EU and international regulations. Furthermore, the course aims to carry out an in-depth analysis of the principles, the applications, and the relevance, for the companies of the agri-food industry, of the most widespread schemes for the certification of products and systems.

At the end of the course, students will be able to acquire the tools they need for a critical analysis of the processes involved in the management of food quality and safety. In addition, they will be able to identify and promote the different international certifications as a priority tool to implement the quality of agri-food productions, improve business efficiency, and meet the competitive needs of agri-food companies in local and foreign markets.

***COURSE CONTENT***

**The European approach to food safety and the regulatory environment**

* The ‘from farm to fork’ integrated approach to food safety.
* The Reg (EC) 178/2022: risk analysis; the European Food Safety Authority (EFSA); the Rapid Alert System for Food and Feed (RASSF); traceability.
* The ‘hygiene package’: The Reg (EC) 852/2004 and the Reg (EC) 853/2004. The Reg (UE) 2017/625.
* The basics for the management of hygiene in agri-food companies.
* The Good Manufacturing Practices and the Good Hygiene Practices manuals (GMP-GHP).
* The HACCP: principles and application according to the Codex Alimentarius. Examples of HACCP plans.
* The microbiological criteria according to the Reg (EC) 2073/2005
* The labelling of foodstuffs according to the Reg (UE) 1169/2011, the Reg (UE) 775/2018.
* The international environment and Food Protection (Food Fraud and Food Defence).

**International certifications**

* The accreditation and certification system.
* Principles, application, and relevance, for the companies of the agri-food industry, of the most widespread system certifications: ISO 9001:2015 (quality management system), ISO 22000:2018 (food safety management system).
* Principles, application, and relevance, for the companies of the agri-food industry, of the most widespread product certifications: BRC Global Standard for Food Safety, IFS Food, FSSC 22000, Global G.A.P., GMP +, ISO 22005:2008, Non-GMO, Organic, FAIRTRADE, UTZ, Halal, Kosher. The voluntary certifications of food with specific characteristics (‘free from’, ...), sustainability certifications. Official accreditation certifications (DOP, IGP, STG).

***READING LIST***

Further information on the reading list and the supplementary teaching material will be made available during the lectures.

***TEACHING METHOD***

Frontal lectures and case studies. In order to help students get the most out of this course, some of the lectures will be held by subject-matter experts with practical and business experience, in collaboration with the lecturer.

***ASSESSMENT METHOD AND CRITERIA***

The assessment will consist of an oral or a written test at the end of the course, including the discussion of a paper developed by students and focused on specific topics analysed during the presentation of case studies. The exam aims to assess the students’ theoretical and reasoning skills.

***NOTES AND PREREQUISITES***

Attendance at the course, although not mandatory, is strongly recommended.

The teaching material produced during the course and any material useful for preparing for the exam will be made available online.

More detailed information on the parts of the recommended texts of specific interest for the course, bibliographic and additional study material, will be provided by the teacher during the lessons and on the Blackboard platform.

Information on office hours available on the teacher's personal page at http://docenti.unicatt.it/.

**Module 2 – Quality and Agri-Food Markets**

Prof. Daniele Moro

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide the tools to understand how agri-food markets and the transmission processes along the supply chain work, considering the characteristics of agricultural supply and food demand, the structure of market margins, and the role played by trade and sector-specific policies. In particular, it will focus on the problems related to the quality of products, and its effects on consumption choices and the characteristics of agricultural production, transformation and distribution, and therefore to product differentiation and quality improvement strategies.

At the end of the course, students will be able to acquire the tools they need for a critical analysis of the market phenomena that can occur along agri-food supply chains, in order to implement adequate response strategies and guarantee the functionality of the supply chains and the positioning and marketing capacities of companies, and, in particular, carry out a critical analysis of the implications of the main instruments for the improvement of the quality of agri-food products.

***COURSE CONTENT***

The different approaches to the definition of quality.

Food demand: foundations, distinctive features, the main evolutionary phenomena, with a focus on food quality.

The market system: the role of producer markets, market margins, the transmission of information along the supply chain.

The different dimensions of quality, information asymmetry, customer perception. Horizontal and vertical differentiation.

The policies for the quality of agri-food products.

***READING LIST***

During the course, for every topic analysed, the lecturer will provide information on the reading list and supplementary teaching material. The teaching material will be made available on the Blackboard page of the course.

***TEACHING METHOD***

The course corresponds to 5 ECTS (30 hours), and will be characterised by frontal lectures that can include the presentation of case studies and empirical models, and meetings with subject-matter experts. Class attendance is strongly recommended.

***ASSESSMENT METHOD AND CRITERIA***

The assessment method will be based on:

* a written exam. The questions will be focused not only on the most descriptive parts of the course, but also on the most formal ones. The number of points associated with each question may vary according to the type of exam and will be specified during the test.
* the participation in class, that may include also a group work/test (awarding students with up to three extra points on the final mark).

The final exam aims to precisely assess the overall preparation of students on the whole content of the course, and allow the lecturer to evaluate their reasoning skills and their ability to use methodological tools to interpret the phenomena that characterise agri-food markets and their qualitative dimension.

***NOTES AND PREREQUISITES***

Class attendance is not compulsory, but highly recommended.

Further details on the course content will be made available during the course. In order to get the most out of this course, students are expected to have a basic knowledge of the fundamental concepts learned during the Economics and Agri-food policies course.

Information on office hours available on the teacher's personal page at http://docenti.unicatt.it/.