**SUSTAINABILITY AND FOOD LAW**

Proff. Gabriele Canali-Luca Leone

**I-Module - Economic and Environmental sustainability of Agriculture (5 ECTS)**

Prof. Gabriele Canali

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

The aim of the course is to help the students to understand the economic dimension of the most important topics of environmental economics, with specific reference to the agri-food sector. The main topics of the course are: the optimal use of renewable and non-renewable resources from an economic point of view, the economics of pollution, the economic evaluation of environmental goods and services, the relationships between the agri-food chain and the environment, sustainability.

Students will also perform a group or personal work on one specific environmental problem; they will make a presentation illustrating the issue, the methodology used and the solution proposed.

At the end of the course, students are expected:

(1) to know the economic models that can be applied to use in an optimal way renewable and non-renewable resources;

(2) to know the main approaches that can be used in order to reduce in an optimal way pollution;

(3) to know the main issues in order to move towards a more sustainable agriculture;

(4) to know the most important methods available to obtain an economic evaluation of externalities; (5) to know how to use these tools in order to analyse a simple practical case study.

***COURSE CONTENT***

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|  | ECTS |
| **Economic development, economic theories and sustainability** |  |
| Some specific aspects of environmental economics.  Economic theories and relationship between the economic system and the environment.  Circular economy and sustainability. | 0.5 |
| **Economics of natural resources** |  |
| Renewable natural resources (RR).  The optimal use of RR in different conditions (profit maximization, free access, common property, presence of externalities like the value of biodiversity).  The extinction problem: possible causes and implications in terms of policies and economic tools. | 1.0 |
| Non-renewable natural resources (NR)  The optimal use of non-renewable resources and its weaknesses.  The effect of most important variables on price evolution of NNR  Measurement and scarcity: neo-Malthusian vs neo-Ricardian approaches. | 0.5 |
| **Economics of pollution** |  |
| Definition of the optimal level of pollution.  How to reach the optimal level of pollution: the Coase approach, standards and fines, Pigouvian taxes, subsidies.  Comparison between standards and Pigouvian taxes with uncertainty. | 1.0 |
| **The economic evaluation of environmental goods** |  |
| The total economic value and its components.  Indirect and direct methods: pros and cons  The contingent valuation; some examples.  The travel cost method (individual and zonal); some examples  The hedonic price method; some examples | 1.0 |
| **Agriculture, environment and sustainability** |  |
| The evolution of the Common Agricultural Policy (CAP) and its effects on relationships between the agricultural sector and the environment.  Rural development policies and agri-environmental policies. | 0.5 |
| Sustainability and the agri-food sector  Environmental certifications and sustainability. | 0.5 |

***READING LIST***

There is no specific course textbook; however, the following books can be useful references:

- Phaneuf D. J and Requate T., *A course in Environmental economics*, Cambridge university Press, Cambridge (UK), 2017;

- D.W. Pearce D. W. and Turner R. K., *Economia delle risorse naturali e dell’ambiente,* Il Mulino, Bologna, 1991.

Reading materials, references and slides will be available on the web (Blackboard).

***TEACHING METHOD***

The course is based on lectures, supported by slides, and supplemented with some topic-specific discussions with active participation of the students. One group work and one presentation is organized in order to give the students the possibility to work on a simple case study and to learn how they can apply theories and methodologies in real world cases.

***ASSESSMENT METHOD AND CRITERIA***

The assessment is based on two written exam and on the group work and presentation. The final grade is obtained as a weighted average of the results of the three components, using the following weights: 40% for the mid-term, 40% for the final exam, 20% for individual work and presentation.

Each written test is structured on a maximum of six open questions; answers are evaluated with reference to coherence and completeness. The time allowed for these written exam is not between 40 and 60 minutes in both cases. Students must pass both written test with a grade greater or equal to 15/30 but the final weighted average must reach at least 18/30. All partial grades (intermediate written test and group work) have a validity for one academic year.

Passing the intermediate written test is NOT a prerequisite to take the final exam; in this case, in the final written exam the student will have to answer to questions on the entire program.

***NOTES AND PREREQUISITES***

Some basic knowledge in micro and macroeconomics is desirable.

Information on office hours is available on the instructor's personal page at <http://docenti.unicatt.it/>

In case the current Covid-19 health emergency does not allow frontal teaching, remote teaching will be carried out through synchronous or asynchronous procedures that will be promptly notified to students.

**II-Module Food Legislation and Certification**

Prof. Luca Leone

***COURSE AIMS AND INTENTED LEARNING OUTCOMES***

The course will provide students with a general overview of the ways in which food-related knowledge, both traditional and innovative, is informed, defined and regulated in today European (EU) knowledge-based, data-centric society. Expected learning skills are better defined below.

**Knowledge and analysis ability**

At the end of the course, the student will be able to critically describe and analyse, from a normative perspective, different areas where EU legislation and policy are increasingly evolving in addressing the relationship between food and society: the development of the EU food-related normative strategies (from the origins to the new “nudge regulation”); the so-called General food law and the role played by the European Food Safety Authority (EFSA) in dealing with technoscience and risks; the rights related to labelling; the legal protection for traditional and emerging knowledge; the law reforms of novel foods and organic farming.

**Communications skills**

The student is expected to be able to successfully deliver, in both oral and written forms, a critical analysis and discussion of food-related legal issues, using suitable and proper technical language.

**Learning capacities**

Regardless of previous background, at the end of the course the student will have to hold learning capacities suitable to lead him/her to sufficiently comprehend pieces of legislations and court’s judgments.

***COURSE CONTENT***

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| --- | --- |
|  | ECTS |
| **The flourishing of European Food Law** |  |
| The EU food law and policy: historical roots and development.  The so-called General Food Law: general principles.  Towards a “nudge regulation” in the Innovation Union. | 1.0 |
| **EFSA and risk analysis** |  |
| The EFSA: structure, duties, management; risk analysis.  The precautionary principle.  The Rapid Alert System. | 1.0 |
| **Food information and beyond** |  |
| Rules on labelling.  The digital paradigm of Open Data.  Nutritional and health claims. | 1.0 |
| **Innovation in the agrifood domain** |  |
| GMOs, novel foods and gene editing.  Innovation and trademarks in the food market.  Standards and certifications in the agro-food industry. | 1.0 |
| **Law reforms and issues unsolved** |  |

The new regulation on organic farming.

Pesticides and legislation on maximum residue levels (MRLs). 1.0

Animal welfare.

Food loss and waste.

***READING LIST***

For students not attending the module:

Costato-Albisinni (eds*), European and Global Food Law*, Wolters Kluwer, 2016, Second Edition, Chapters: I-II-VIII-IX-XIII-XIV-XV-XVI-XVII-XIX-XX-XXI-XXII-XXIII-XXIV-XV-XVI-XVII.

For attending students, reading materials will be provided (posted on the web) during the class.

***TEACHING METHOD***

The teaching method will embrace the following activities:

1) Indoor lectures where the main course topics will be covered along with several examples. Teaching method will use high interactivity between teacher and students to stimulate discussion and also help breaking the barrier of shyness.

2) Presentations of case studies aimed at learning how to approach the vast array of legal documents (directives, regulations and court’s judgments).

3) Class discussions aimed to critically deconstruct legal rules and court’s rulings.

***ASSESSMENT METHOD AND CRITERIA***

Students not attending will prepare for the written exam (three questions needing open answers and giving 10 points each) based on the course textbook.

Attending students will be provided with a written test, based on three questions needing open answers and giving 10 points each.

Assessment aims at evaluating the student’s ability to reason and rigorously analyse the topics covered during the course, as well as the proper use of legal terminology to explain food-related normative issues, together with the correct use of the English language and the capacity of linking issues to each other through a narrative and ‘non-schematic’ approach.

***NOTES AND PREREQUISITES***

Attendance at lessons is encouraged and highly recommended. No requirements are needed for attending the course. However, interest and intellectual curiosity for an ethical-legal reflection on the agri-food system is expected.

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