**Economics of Sustainability and Circularity in Food Systems**

Prof. Linda Arata

***COURSE AIMS AND EXPECTED LEARNING OUTCOMES***

***Course aims***

The course introduces the students to the concepts, perspectives and methodological approaches of environmental economics and natural resources economics. It also aims at developing awareness of the complex interrelation between economic growth and environmental impact and of the sustainable management of natural resources.

***Expected learning outcome***

At the end of the course, the student will know the main policy tools to pursue sustainable development, the methodologies to value the environment, the role of common and public goods as well as of sustainable management of natural resources. The student will be able to perform a basic cost-benefit analysis to evaluate alternative policy projects and discuss the most appropriate tools to address a specific environmental issue. The student will also be able to discuss a relevant environmental topic highlighting the main issues and potential solutions.

***COURSE CONTENT***

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|  | ECTS |
| **Introduction** | 0.5 |
| The economics and the environment  The natural capital |  |
| **Externalities** | 1.0 |
| Negative externalities  Positive externalities  Government tools to address the externalities  Pollution analysis and pollution control policies |  |
| **Common goods and public goods** | 0.5 |
| Definition of common goods  The tragedy of the commons  Common goods, game theory, social dilemma  The management of common goods  Definition of public goods  The issue and the management of public goods |  |
| **Non market valuation and Cost-Benefit Analysis** | 1 |
| The absence of a market for the environment  Revealed Preference Methods: Travel cost, Hedonic pricing, Defensive expenditure approach  Stated Preference Methods: Contingent Valuation, Choice Experiment  Cost-benefit analysis |  |
| **Macro-economic measures of sustainable economic growth** | 0.5 |
| Green GDP, Adjusted Net Saving, Genuine Progress Indicator, Happy Planet Index, Better Life Index |  |
| **Agriculture, Food and the Environment** | 0.5 |
| **The Economics of Natural Resources** | 1 |

***READING LIST***

Course textbook:

Harris, J., M., Roach, B. (2022). Environmental and Natural Resource Economics. A Contemporary Approach. Ed: Routledge

***TEACHING METHOD***

The course consists of five credits of lectures, in which the instructor will explain the theoretical concepts and will provide practical applications to real-world cases. Active participation of the students through questions, discussions, and opinions is appreciated. At the end of the course, the students will be required to give an oral presentation of a group work (see Section Assessment Method and Criteria).

***ASSESSMENT METHOD AND CRITERIA***

The course learning outcome will be assessed in two ways. There will be one final written exam which contributes 75% to the final grade. In addition, the students must carry out group work on an environmental economics-related paper. The group work will be presented orally in class at the end of the course and contributes 25% to the final grade. More information on the group work will be provided at the beginning of the course. Both part of the exam needs to be passed with a grade of at least 18.

The written exam is intended to provide a sufficiently precise measure of the student’s learning and to offer the lecturer a grasp of the student’s reasoning skills and abilities to analyze environmental economics issues. The group work is intended to assess the student’s skills and ability to use the concepts and tools learned in the course to analyse, discuss and propose potential solutions to an ongoing environmental economics issue.

***NOTES AND PREREQUISITES***

Detailed information and the slides of the course can be found on the blackboard page of the course.

Although attending the lectures is not compulsory, it is warmly recommended.

The course requires basic knowledge of microeconomics concepts.

The lecturer will receive students by appointment.