



**EC 235 – THE ECONOMICS OF SOCIAL & ENVIRONMENTAL SUSTAINABILITY:
FOOD & WINE SECTORS IN THE NEW GLOBALIZATION**
IES Abroad Siena

DESCRIPTION:

The course provides an overview of economics and social sustainability issues in the global economy and global governance. This course will provide students with theoretical concepts and models with respect to sustainability as well as hands-on experience in the new era of economics of sustainability. Furthermore, the course will analyze issues of green and sustainable finance as a fundamental element of the new ecological transition. Finally, the course will analyze in particular the sustainability in wine and food sectors, with a specific focus on the reality of Tuscany and Italy. Food and wine sectors will be used as tools to understand how to apply the principles of economic, social, and environmental sustainability.

The first part will focus on introductory remarks of definitions, preview and foundations of sustainability and sustainable development (weeks 1). **The second part** will focus on the concept of sustainable development, SDGs, UN Convention on Biological Diversity (UN-CBD), the Aichi Targets and (weeks 2 and 3). **The third part** will focus on the concept of green and sustainable finance, green bond and resource mobilization for the ecological transition of global economy (European and global dimension) (week 4 and 5). **The fourth part** will focus on the concepts and issues of biodiversity and its economic value (week 6). **The fifth part** will focus on the attempts to measure Natural Capital and Ecosystems Services (week 7). **The sixth part** will focus on the issues of Ecosystem Services (ES) (week 8). **The seventh part** will focus on National Accounting for environmental variables (SEEA-EEA; SEEA-CF) (week 9). **The eighth part** will focus on environmental harmful policies and the new instruments to phase out environmental harmful subsidies (week 10). **The ninth part** will focus on global environmental policy for sustainable development and circular economy (week 11). **The tenth part** will analyze the position of Governments, their policies about Sustainable development and the role of global cooperation with particular focus on the European Green Deal and European Taxonomy (week 12). For each topic, the instructor will provide theoretical and empirical examples related to the field of wine and food.

CREDITS: 3 credits

CONTACT HOURS: 45 hours

LANGUAGE OF INSTRUCTION: English

PREREQUISITES: None

ADDITIONAL COST: None

METHOD OF PRESENTATION:

Lectures (including PowerPoint projections and other visual materials), seminar discussions, Moodle application, and field studies.

REQUIRED WORK AND FORM OF ASSESSMENT:

- Active class participation and class discussions - 10%
- Written midterm exam - 25%
- Written final exam - 25%
- Project on international cooperation - 20%
- Class presentation - 10%
- Weekly Moodle activities - 10%

Written Midterm and Final Exam

In-class written exams are designed to assess a student's knowledge of and familiarity with all the content and skills associated with the course. Professor will provide 8 open questions and the student must choose 4 to answer, along with 10 multiple choice questions. Students will have two hours to complete the exam.



Group Project on international cooperation of policies for the ecological transition

The project will be organized in small groups or individually depending on the number of students. The project will be carried out throughout the course and will be divided into weekly written outputs (country card):

1. Drawing by lot of a country, member of the United Nations
2. Analysis of the country's economic, social, and environmental situation.
3. Analysis of the country's situation in terms of economic and environmental sustainability (critical issues and strengths).
4. Identification of priorities for sustainability and choice of SDGs important for the country.
5. Choice of environmental policies and actions to be taken to achieve the SDGs.
6. Identification of the CBD priorities.
7. Choice of policies and actions to achieve CBD Aichi Targets.
8. Recognize the most important ecosystem services for the country and quantify their economic value.
9. Identify financial instruments to achieve sustainability.
10. Study of other countries using country cards drawn up by other groups.
11. 10-minute class presentation on country card and negotiation between all countries to identify common goals and identify global actions and shared local policies.

Weekly Moodle Activity

Every week the professor will open a new activity on Moodle (forum, quiz, lesson, assignment) about a topic covered during the week. Students will have to complete the activities according to the instructions provided by the professor. In particular, in the weeks in which the two course-related trips will take place, the weekly activity will concern topics linked with the trip.

LEARNING OUTCOMES:

By the end of the course, students will be able to:

- Explain the meaning and the social and economic implications of sustainability, sustainable development, and the role of ecological transition;
- Analyze the mechanisms and cause-effect relationship between the variable of sustainable development;
- Describe various economic and social policies for sustainable development;
- Critically analyze issues related to sustainability;
- Analyze the mechanisms and cause-effect relationship between biodiversity and ecosystem services;
- Critically analyze issues related to the Environmental Accounting and Natural Capital Accounting;
- Discuss and take a position on international cooperation and the role of international organizations and treaties;
- Analyze sustainability in food and wine sectors giving empirical examples in Tuscany, Italy, or at a global level.

ATTENDANCE POLICY:

Successful progress of the program depends on the full cooperation of both students and faculty members: regular attendance and active participation in class are essential parts of the learning process. Attendance at and participation in all class meetings and field-studies are required. More than TWO absences will result in a lowering of your grade by two percentage points for every absence. Each further absence will automatically result in a penalty of two points off (2/100) on the final grade. SEVEN absences per course (including 2 excused absences) will result in a failing grade for that course. Furthermore, an absence on the date of scheduled tests, presentations or quizzes does not entitle you to recover/reschedule such tests. Failure to attend your midterm and/or final exam will result in an F grade on that paper/exam.

CONTENT:

Week	Content	Assignments
Week 1	Introductory remarks: definitions, preview, and foundations of sustainability and sustainable development. <ul style="list-style-type: none"> Sustainable development: definition and foundation The globalization of sustainability The effects of COVID Wine and food business Class discussion 	Activity: drawing by lot of a country, member of the United Nations Readings: <ul style="list-style-type: none"> Borghesi S. and Vercelli A., "Global Responsibility: social and environmental conditions", Palgrave Macmillan. 2008: Pages 1-33. Daly H. E. (1990), Toward Some Operational Principles Of Sustainable Development. Ecological Economic. Stiglitz, J.E., Sen, A., Fitoussi, J.-P., 2009. Report by the Commission on the Measurement of Economic Performance and Social Progress.
Week 2	Sustainable development, SDGs, UN Convention on Biological Diversity (UN-CBD) and the Aichi Targets <ul style="list-style-type: none"> Sustainable Development Goals SDGs international and national policies CBD Aichi Targets Circular economy Wine and food business Class discussion 	Activity: analysis of the country's economic, social, and environmental situation Readings: <ul style="list-style-type: none"> UNEP) United Nations Environment Programme Conference of the Parties (COP) to the UN Convention on Biological Diversity (CBD), Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity at its Tenth Meeting, 2010. < https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-02-en.doc > .
Week 3	Sustainable Finance <ul style="list-style-type: none"> The requirements of environmental sustainability and social sustainability The meaning and the role of sustainable finance and green finance The ecological transition of global economy (European and global dimension) Resource mobilization and Green Bond Circular economy Wine and food business Class discussion 	Activity: analysis of the country situation in terms of economic and environmental sustainability (critical issues and strengths) Readings: <ul style="list-style-type: none"> Schoenmaker and Schramade (2018), Principles of sustainable finance.

Week	Content	Assignments
Week 4	Biodiversity and its Economic Value <ul style="list-style-type: none"> • Meaning of biodiversity • The current environmental model to value biodiversity • Main causal links between economic development and biodiversity • The role of biodiversity in wine and food production • Global warming and energy policies • Class discussion 	Readings: <ul style="list-style-type: none"> • O'Riordan T, S Stoll-Kleemann - (2002), Biodiversity, sustainability and human communities: protecting beyond the protected. Cambridge University Press. • OECD (2018), Mainstreaming Biodiversity for Sustainable Development. OECD Publishing, Paris. https://doi.org/10.1787/9789264303201-en • Dasgupta P, Mitra T, Sorger G (2016) Harvesting the commons. Working Paper 1608, Department of Economics, University of Vienna.
Week 5	Biodiversity and measures of Natural Capital and Ecosystems Services <ul style="list-style-type: none"> • Meaning of natural capital • Natural capital and environmental sustainability • Natural capital report • Wine and food sectors • Class discussion 	Activity: Choice of environmental policies and actions to be taken to achieve the SDGs. Readings: <ul style="list-style-type: none"> • De Groot R. et al. (2012). Global estimates of the value of ecosystems and their services in monetary units. Ecosystem Services, Vol. 1, Issue 1, Pages 50-61. • De Groot, R. S., et al. (2013). Benefits of investing in ecosystem restoration. Conservation Biology, 27, 1286–1293.
Week 6	Review and MIDTERM EXAM	
Week 7	Ecosystem Services <ul style="list-style-type: none"> • Meaning of Ecosystem Services (ES) • ES and environmental sustainability • Economic value of ES • Empirical analysis • Wine and food business • Class discussion 	Activity: Choice of policies and actions to achieve CBD Aichi Targets Readings: <ul style="list-style-type: none"> • Costanza, R., et al., 1998. The value of ecosystem services: putting the issues in perspective. Ecol.Econ. 25, 67–72. • De Groot, et al., 2012. Global estimates of the value of ecosystems and their services in monetary units. Ecosyst. Serv. 1, 50–61. • TEEB Foundations, 2010. The Economics of Ecosystems and Biodiversity: Ecological and Economic Foundations. Earthscan, London.

Week	Content	Assignments
Week 8	National Accounting for Environmental Variables <ul style="list-style-type: none"> • Definition • The role of environmental accounting for sustainable development • Systems of Environmental Economic Accounting • SSEA EEA and SSEA CF • Class discussion 	<p>Activity: Recognize the most important ecosystem services for the country and quantify their economic value.</p> <p>Readings:</p> <ul style="list-style-type: none"> • La Notte, A., Vallecillo, S., Polce, C., Zulian, G. & Maes, J. (2017) Implementing an EU system of accounting for ecosystems and their services. Initial proposals for the implementation of ecosystem services accounts (Report under phase 2 of the knowledge innovation project on an integrated system of natural capital and ecosystem services accounting in the EU). JRC107150. Retrieved from http://publications.jrc.ec.europa.eu/repository/handle/JRC107150?mode=full • UN, EC, FAO, IMF, OECD & World Bank (2014a) System of Environmental-Economic Accounting 2012. Central Framework. Retrieved from http://unstats.un.org/unsd/envaccounting/seeaRev/SEEA_CF_Final_en.pdf
Week 9	Harmful environmental policies and the new instruments to phase out harmful environmental policies <ul style="list-style-type: none"> • Definition of environmental harmful policies • Phase out • Sustainability and financial sector • Wine and food business • Class discussion 	<p>Activity: Build a general scheme of an Environmental Accounting and Natural Capital Accounting for the country</p> <p>Readings:</p> <ul style="list-style-type: none"> • Borghesi S. and Vercelli A., "Global Responsibility: social and environmental conditions" ,Palgrave Macmillan. 2008: Pages 152-182. • Santini C et al., Sustainability in the wine industry: key questions and research trends, Agricultural and Food Economics, 2013. • M Hartmann, (2011). Corporate social responsibility in the food sector. European Review of Agricultural Economics, • OECD, 2017. Policy Coherence for Sustainable Development: Eradicating Poverty and Promoting Prosperity. Organization for Economic Cooperation and Development, Paris.

Week	Content	Assignments
Week 10	Global environmental policy for sustainable development <ul style="list-style-type: none"> European Green Deal and European Taxonomy Global and local environmental policies The role of global cooperation Policy for circular economy Wine and food business Class discussion 	Activity: Build a general scheme of an Environmental Accounting and Natural Capital Accounting for the country Readings: <ul style="list-style-type: none"> Borghesi S. and Vercelli A., “Global Responsibility: social and environmental conditions” ,Palgrave Macmillan. 2008: Pages 152-182. Santini C et al., Sustainability in the wine industry: key questions and research trendsa, Agricultural and Food Economics, 2013. M Hartmann, (2011). Corporate social responsibility in the food sector. European Review of Agricultural Economics, OECD, 2017. Policy Coherence for Sustainable Development: Eradicating Poverty and Promoting Prosperity. Organization for Economic Cooperation and Development, Paris.

COURSE-RELATED TRIPS:

- Chianti, to get a close insight into the relations between wine production and transformation, the environment, and sustainability principles;
- San Gimignano, to get a close insight into the relations between food production and transformation, the environment, and sustainability principles;
- Val d’Orcia, so as to understand the effects of sustainability and environmental policies on local agriculture and rural development, and to reflect on sustainability of the food industry.

REQUIRED READINGS:

- Borghesi S. and Vercelli A., “Global Responsibility: social and environmental conditions” ,Palgrave Macmillan. 2008.
- Anderson K., 2004, The world’s wine markets: Globalization at work.

RECOMMENDED READINGS:

- R.K. Turner, D. W. Pearce and I. Bateman, “Environmental Economics: an elementary introduction”, Johns Hopkins University Press, 1994.
- Tietenberg T. and Lewis L., “Environmental & Natural Resources Economics”, 2011, Prentice Hall 9/E.