ENV-SOC-FSST 330 Sustainable Food Production in Italy
Course Syllabus
Fall Semester 2022

Instructor: Domenico Aiello, Ph. D.
Credits: 3
Contact Hours: 45
Prerequisites: none

Office Hours: by appointment after a class or via Zoom (see Moodle site)

Course Type: Standard Course

Course Description
There are more than seven billion humans on the planet. and it is estimated that by 2050 the world's population will reach 9.1 billion (34 % higher than today), each of whom need to eat every day: ever-higher food production is contributing to faster use of non-renewable fossil fuels and environmental degradation. Food production will need to increase by 70% to feed the larger and most likely more urban population. What modes of food production and consumption may be viable, sustainable responses to this problem? What are some alternative models of food production? How are people responding to increasing inequalities relating to food availability?

This course focuses on the radical increase in food production over the last decades and the ecological and social problems it has created, as well as on some possible solutions: the organic movement, Slow Food, and the shift towards local food. We will cast a critical eye on these movements and analyze their ability to change the trajectory of the global food production system, which is rapidly heading for collapse.

Learning Outcomes and Assessment Measures
By the end of the course, students will be able to:

1. define principles, frameworks, and indices (from various disciplines) for measuring progress toward a sustainable society;
2. recall the key characteristics of human and natural systems as they pertain to sustainability and analyze different models of transitions towards a sustainable food system;
3. evaluate existing research on sustainability from a variety of disciplines;
4. provide different political, environmental and social interventions for more sustainable food production in Italy and in the USA without negatively affecting environmental justice;
5. integrate experiential learning activities with classroom knowledge to practice systematic, public-facing, and ethical scholarship using twenty-first-century research and communication tools.

Course Materials
Readings
A course reader, including all the indicated readings, will be available. The course’s Moodle site is the primary location for readings and assignments.

**Assessment**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>10 %</td>
</tr>
<tr>
<td>Weekly Moodle Quizzes</td>
<td>10 %</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20 %</td>
</tr>
<tr>
<td>Course Journal</td>
<td>20 %</td>
</tr>
<tr>
<td>Presentation</td>
<td>15 %</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20 %</td>
</tr>
<tr>
<td>Office Hours</td>
<td>5 %</td>
</tr>
</tbody>
</table>

**Grading**

Students are reminded that it is their responsibility to note the dates of exams and other assignments. No alternative exam dates will be offered and professors are not required to give partial credit for any late work (they do so at their discretion: the Institute’s default policy is no extensions and a zero for any work turned in late). Students who book travel when they have an exam or other assessment will have to change their plans or accept a zero. Letter grades for student work are based on the following percentage scale:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numerical Score Equivalent</th>
<th>Student Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93% - 100%</td>
<td>Exceptional</td>
</tr>
<tr>
<td>A-</td>
<td>90% - 92%</td>
<td>Excellent</td>
</tr>
<tr>
<td>B+</td>
<td>87% - 89%</td>
<td>Superior</td>
</tr>
<tr>
<td>B</td>
<td>83% - 86%</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>80% - 82%</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>77% - 79%</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C</td>
<td>73% - 76%</td>
<td></td>
</tr>
<tr>
<td>C-</td>
<td>70% - 72%</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>67% - 69%</td>
<td>Low Pass</td>
</tr>
<tr>
<td>D</td>
<td>63% - 66%</td>
<td></td>
</tr>
<tr>
<td>D-</td>
<td>60% - 62%</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>59% or less</td>
<td>Fail (no credit)</td>
</tr>
</tbody>
</table>

**Course Requirements**

Grades are based on a combination of participation, in-class assessments, service learning, and exams.

**Attendance (10 %)**

Attendance is an important part of this course. You have two “sick days,” per Institute policy. As long as you are at all the other meetings, you will receive the full 10% for this part of your grade. There are no make-ups offered for attendance.

**Moodle Quizzes (10 %)**

Students will be assigned two short quizzes every week, each of which will be due before class time and will not be reopened. The quiz will be on Moodle and it is not timed. Students can take the quiz as many times as they like, with the recorded grade being the highest grade they receive. There will be a combination of technical, methodological, and content questions. The content questions will help students zoom in on the most important ideas of the readings. The technical questions will help students learn the class’s policies and administrative procedures. The methodological questions...
will test on skills that will pop up every week, like finding an author’s argument and assessing sources.

**Mid-Term Exam (20%)**

An exam covering all topics presented in the first half of the course. It will consist of short answers. The exam will take approximately 90 minutes to complete and is closed book/closed notes. No alternative exam dates or times will be offered. See the full prompt on Moodle for more information.

**Course Journal (20%)**

Students will be provided with a notebook at the start of the semester, which they will use as a personal space through which to reflect on course material and ideas. In-class assignments (e.g. summaries of assigned readings, analyses of primary sources, mental maps, reflections, predictive exercises) will be regularly scheduled and graded twice throughout the semester, i.e. before the mid-semester break (Week 7) and at the end of the course (Week 12). Each of these checks is worth 10% of your grade, for a total of 20%. See the full prompt on Moodle for more information.

**Presentation (15%)**

A 15-20 minute presentation in pairs on best practices in food and sustainability. E.g. I expect: 1) a brief activity/questions to involve the class 2) a brief theoretical introduction 3) a description of your case-study 4) an evaluation of its achievements 5) counter arguments 6) a clear conclusion 7) questions for discussion. See the full prompt on Moodle for more information.

**Final Exam (20%)**

An exam covering all topics presented in the second half of the course. It will consist of short answers. The exam will take approximately 120 minutes to complete and is closed book/closed note. This is the only time the exam will be given. No alternative exam dates or times will be offered. See the full prompt on Moodle for more information.

**Office Hours (5%)**

Getting to know your professor makes you more comfortable with that person and therefore more likely to ask for help. It also might help for you to ask questions about the various assignments or discuss a paper idea. In this course, you get 5% of your grade for coming one time before Week 9 to office hours. See the full prompt on Moodle for more information.

**Extension & Submitting Late Work**

Work submitted after the deadline will receive a grade of zero, not partial credit. Each student is allowed one extension of 24 hours over the entire semester. This can be used for any assignment but the final project. Students need to email the instructor before the deadline and inform the instructor of their use of the extension. Any work submitted after the 24-hour extension will be marked zero. As for all policies, exceptions can be made by the Director for students with special accommodations or in case of medical emergencies, etc.

**Attendance & Lateness Policy**

Class attendance (in person) is mandatory. Students are allowed two “sick days,” which do not need to be justified. However, it is considered common courtesy to inform the instructor of your absence when possible. It is the students’ responsibility to keep them in case of real necessity (sickness or any other unforeseen inconvenience that may prevent students from being in class). Each additional absence—even for another illness—will lower the students’ grade by half a letter grade (i.e., a final grade of a B+ would be lowered to a B). Missing a co-curricular field trip also lowers a student’s final grade by half a letter grade. It is the policy of the Institute that any student who has eight or more absences automatically fails the class.
If a student misses a class, it is ultimately their responsibility to find out what has been missed. Ideally, they should find out what they missed from a classmate. Any work missed in class because of an excused absence may be made up within one week of the return to the class. Any work missed that was a quiz or other test must be made up outside of class time and will, in the interest of intellectual honesty, be a slightly different test than the one given in class.

Except in the case of medical emergencies with a doctor’s certificate and approved by the Director, absences are not accepted when tests are scheduled; tests cannot be made up. Furthermore, scheduled times and dates indicated for exams, quizzes, oral presentations, and any other graded assignments cannot be changed for any reason. Even if more sections of the same class are activated, students may only take exams during the scheduled times and dates for the section they are enrolled in.

Consistent lateness (or leaving class early) is a sign of disorganisation and lack of respect both for your instructor and for your fellow students. Umbra instructors are empowered to count three late arrivals as the equivalent of an absence.

**Academic Integrity**

All forms of cheating (i.e., copying during exam either from a fellow student or making unauthorised use of notes) and plagiarism (i.e., presenting the ideas or words of another person for academic evaluation without acknowledging the source) will be handled according to the Institute Academic Policy, which can be found in the Umbra Institute Academic Policies and Conduct Guidelines.

**Classroom Policy**

Students are expected to follow the policy of the Institute and demonstrate the appropriate respect for the historical premises that the school occupies. Please note that cell phones must be set on silent mode before the beginning of each class. Computers and other electronic devices cannot be used during class lectures and discussions for anything other than note-taking, unless there has been a specific academic accommodation.
**Schedule of Topics, Readings, and Assignments**

**WEEK 1**

**Introduction to the Course**

*Meeting#1:* In this first class, the instructor will explain the structure of the course. Introduction on “What is sustainability?”

*Meeting#2:* What is sustainability? There is no universally agreed definition of what sustainability means. Today the class will explore the different views on what it is and how it can be achieved.

**Readings for the week:**


How Does Sustainable Agriculture in Italy Yield High Quality Food? *CarbonCraft Blog* 2020

**WEEK 2**

**Defining & Measuring Sustainable Development**

*Meeting#3:* The definition of “sustainable food” has to include a social justice component in a globalised world economy.


*Meeting#4:* In 2015, countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. In 2016, the Paris Agreement on climate change entered into force, addressing the need to limit the rise of global temperatures. The class will discuss what businesses, governments, and people are doing to achieve the Goals.

**Readings**


**WEEK 3**

**Life Cycle Analysis**

*Meeting#5:* Is a more local food always more sustainable than one produced far away? Is local more sustainable than organic? The concept of Life-Cycle Analysis (LCA) and the true food miles (and carbon footprint) of “local” foods will be introduced.

**Readings**


Meeting#6: The class will explore LCA calculations of different Italian products.

Readings

WEEK 4

Local Food, Organic Food, Farmers Markets
Meeting#7: What is the history of organic food production and labelling? This week we will discuss the positive aspects of organic agriculture, but will also offer a critique of the “supermarket pastoral” around “natural” food.


Meeting#8: GUEST LECTURE OR VISIT IN A ORGANIC FARM

Readings for the week:

Urban Agriculture
Meeting#9: Can the countryside and the city grow to be closer? Today, we will rethink the relationship between urban dwellers and their source of food. Can cities become more sustainable by growing food?

Readings

Meeting#10: visit to Orto Sole urban and community garden

Readings

**WEEK 6**

**Midterm Exam Week**
*Meeting#11: Review*
*Meeting#12: Exam*

**Semester Break**

**WEEK 7**

**Genetic Modified Organisms:**
*Meeting#13: The lecture will explore what exactly is “genetic modification”. Is GMO the benevolent technology Monsanto would have us believe it is, or is there something wrong about genetic modification and patenting life?*

*Meeting#14: The class will explore the science- and myth- that surrounds GM food to understand what’s at stake.*

**Readings for the week:**

Pellegrino, Elisa, Stefano Bedini, Marco Nuti, and Laura Ercoli. “Impact of Genetically Engineered Maize on Agronomic, Environmental and Toxicological Traits: A Meta-Analysis of 21 Years of Field Data.” *Scientific Reports* 8,1: 3113, 2018

**WEEK 8**

**Climate Change, Food Security vs Food Sovereignty**
*Meeting#15: The growing temperatures are influencing agricultural productivity in correlation with the latitude. In this class, we will explore the risks associated with climate change and the strategies adopted to address this problem.*

*Meeting#16: It will analyze threats to food security on a global scale and through the case of Italy*

**Readings for the week**


**WEEK 9**

**From food to energy: a new Bio-Economy strategy for a sustainable Italy**
*Meeting#17: From waste to green energy: how food industry by-products become a resource that blends*
environmental and economic sustainability. It will discuss the BIT II (bioeconomy in Italy) document presented at the Italian presidency of Council Ministers in 2019.

Readings:
BIT II – Italian Bioeconomy strategy II (https://cnbhsv.palazzochigi.it/media/1774/bit_en_2019_02.pdf)

Fabio Fava, Lucia Gardossi, Patrizia Brigidi, Piergiuseppe Morone, Daniela A.R. Carosi, Andrea Lenzi. The bioeconomy in Italy and the new national strategy for a more competitive and sustainable country, New Biotechnology, 61, 2021,124-136.

Meeting #18: In this class, it will discuss the valorization of food waste in Italy as an attracted resource for some industries biogas, ethanol, and biodiesel as final products.

Readings:

WEEK 10
Agro-ecology, Agro-forestry and Meat Production

Meeting #19: The class will explore alternative agricultural and farming methods in the Umbria region to assess their sustainability, and compare their findings to the farm visited the previous week.

Readings

Meeting #20: Students will present different chapters of the book assigned, and compare their findings to the farm visited the previous week

Readings

WEEK 11
Food Activism and Slow Food

Meeting#21: The class will explore the intersectionality of class, race, and gender that shape food inequalities as well as food as a site of activism and political change

Readings

Meeting#22: From the beginning, Slow Food was a “political” food movement. Students will discuss Carlo Petrini’s turning away from the mainstream left and creating the group that would become Slow
Food. In addition, we will look at Slow Food’s current stance and decide whether it is the blueprint for global sustainability.

**Readings**

**Meeting#12:** Meeting with slow food umbria representative for a presentation about regional presidia

---

### WEEK 12

**Students Presentation and Special Academic Events Week**

**Meeting #23:** Final Presentations

**Thursday lab:** Final Exam Review

---

### WEEK 13

**Final Exam**