Course Description

This interdisciplinary course examines the environmental, social, and economic dimensions of agriculture, and relevant emerging challenges involving climate change, and resource depletion and degradation. By discussing implications of the so called Green Revolution, of the capital-intensive/high-input practices and the role of food markets, students will learn aspects related to industrial agriculture and how this is linked to development discourses. Environmental protection, and food systems, security, food safety and sovereignty will then be concepts used to problematize consequences of conventional agriculture. The course will link those discussions to a South American context by zooming into the implications of the agroindustry development model in the region and the derived socio-environmental conflicts. Additionally, students will explore the principles and practice of productive alternatives, including integrated crop and pest management, permaculture & agroecology, plus organic, sustainable, and “climate smart” agriculture both in rural and urban contexts, and their implications for food safety and food sovereignty. Using a framework of “systems thinking”, and drawing analogies between agricultural and ecological systems, the course explores the multiple drivers, inputs, and outputs of agricultural production and trade. Students will have firsthand, immersive experiences with production systems that are wide-ranging, and will explore the pros and cons of each, through the lens the environment, economy, and society.

Learning Objectives

By completing this course, students will:

• Be able to define the terms “sustainable agriculture” and “food security” from multiple perspectives
• Be able to apply critical perspectives to the mainstream agro-industrial practices for food production
• Differentiate types of sustainable agriculture systems (e.g. conservation agriculture, organic, biodynamic, permaculture, climate smart agriculture, etc.) their origins, and advantages and disadvantages
• Be able to succinctly summarize why sustainable agriculture is not merely desirable, but necessary to meet coming global challenges
• Synthesize this knowledge and the costs and benefits of the perspectives explored using both oral and written language.

Course Prerequisites:
No prerequisites

Methods of Instruction
The course will consist of lectures by the professor, followed by Q&As and class discussions based on the class material and assigned readings. Classroom activities will include individual, partner and group work and will be complemented by homework exercises. The learning process will be enhanced by discussion meetings with representatives of different players in the public sphere, among them NGOs, political scientists, and politicians. Co-curricular activities will include visits to either NGOs and/or areas affected by environmental issues present in Buenos Aires.

Assessment and Final Grade

1. Oral presentation 20%
2. Discussion Forums 20%
3. Midterm Exam 20%
4. Final Paper 20%
5. Class Participation 20%

Course Requirements

Oral Presentation
Students will be required to deliver oral presentations during the course. This presentation should be 10-15 minutes in length and demonstrate a good understanding of a selected topic and the ability to put it in perspective. The topic should be presented in a concise yet comprehensive manner.

Discussion Forums
Discussion Forums consist of a role-play exercise in which students, divided into smaller groups, will represent the positions and interests of different organizations in a multi-
stakeholder negotiation (involving corporate, NGO, media and governmental actors) around a pertinent sensitive subject implying conflictive interests.

**Midterm Exam**
Students will take an exam that assesses both the level of comprehension of the readings and the understanding of the issues discussed in the first half of the term. The exam will consist of three exam questions, from which students choose two (800-1000 word length each) and elaborate their answers based on both the readings seen and the topics discussed in class.

**Final Paper**
Students will be provided with the instructions for the production of a final paper, 2500-3000 words in length, based on one of subjects discussed during the term. This paper will require students to critically think, synthesize and integrate the concepts from different class sessions. Students are expected to show extensive knowledge of the discussed literature being also allowed to use complementary material to support their arguments. The paper should use APA citation style in referencing resources.

**Participation**
Participation is valued as meaningful contribution in the digital and tangible classroom, utilizing the resources and materials presented to students as part of the course. Meaningful contribution requires students to be prepared in advance of each class session and to have regular attendance. Students must clearly demonstrate they have engaged with the materials as directed, for example, through classroom discussions, online discussion boards, peer-to-peer feedback (after presentations), interaction with guest speakers, and attentiveness on co-curricular and outside-of-classroom activities. Each session will begin with a ‘breaking ice’ exercise that consists on briefly describing the main ideas and arguments introduced by the authors at discussion for that specific session (listed as mandatory readings for the day). Therefore only students who voluntarily participate along the different session’s opening will have that 10% count as part of their final grade for class participation.

**Attendance Policy**
Regular class attendance is required throughout the program, and all unexcused absences will result in a lower participation grade for any affected CIEE course. Due to the intensive schedules for Open Campus and Short Term programs, unexcused absences that constitute more than 10% of the total course will result in a written warning.

Students who transfer from one CIEE class to another during the add/drop period will not be considered absent from the first session(s) of their new class, provided they were marked present for the first session(s) of their original class. Otherwise, the absence(s) from the original class carry over to the new class and count against the grade in that class.

For CIEE classes, excessively tardy (over 15 minutes late) students must be marked absent. Attendance policies also apply to any required co-curricular class excursion or event, as well as to Internship, Service Learning, or required field placement. Students who miss class for personal travel, including unforeseen delays that arise as a result of personal travel, will be marked as absent and unexcused. No make-up or re-sit opportunity will be provided.
Attendance policies also apply to any required class excursion, with the exception that some class excursions cannot accommodate any tardiness, and students risk being marked as absent if they fail to be present at the appointed time.

Unexcused absences will lead to the following penalties:

<table>
<thead>
<tr>
<th>Percentage of Total Course Hours Missed</th>
<th>Equivalent Number of Open Campus Semester classes</th>
<th>Minimum Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 10%</td>
<td>1 content classes, or up to 2 language classes</td>
<td>Participation graded as per class requirements</td>
</tr>
<tr>
<td>10 – 20%</td>
<td>2 content classes, or 3-4 language classes</td>
<td>Participation graded as per class requirements; 3% grade final grade reduction; <strong>written warning</strong></td>
</tr>
<tr>
<td>More than 20%</td>
<td>3 content classes, or 5 language classes</td>
<td><strong>Automatic course failure</strong>, and possible expulsion</td>
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**Weekly Schedule**

NOTE: This schedule is subject to change at the discretion of the instructor to take advantage of current experiential learning opportunities.

**Week 1**

Class 1:1: **Introduction**

We will use this first day of class to get to know each other, understand who we are in the context of the larger, cultural, regional and climate-specific agri-systems we individually come from and discuss what is the actual agricultural and food system status quo

**Week 2**

Class 2:1: **Agro-industrial model and development**

High level historical developments and current debates around the concept of sustainable development will be presented in this session to link them to the agricultural development model. This session is the first conceptual-historical building block in the path of understanding how the so Called Green Revolution was created and infer how the world arrived to the actual agricultural paradigm.

Readings:
Class 2:2: **Development model: Agriculture and food production**

We will discuss aspects of how the actual model of food production creates at the same time food waste and malnourishment. During the session, we will examine how climate change impacts food production and how food production impacts climate change. What does an intensive agriculture model entail? Food-climate-energy-water-poverty nexus Questions like Why there is need for a more balanced relationship between economic, social and environmental aspects will be debated

**Readings:**


**Week 3**

Class 3:1: **Culture and Agriculture in the World**

The class will critically review definitions and measurement methods for food security and insecurity. Trade, GMOs and seed monopolization, implications for local culture and some of the dynamics involved.

**Readings:**


Class 3:2 **Biofuels: Energy and Agriculture**
Biotechnology, biofuels, labeling, food movements, and other emerging issues in agriculture and the controversies involved. When biofuels can help reduce CO2 emissions?

Readings:

Class 3:3: **Livestock Systems**
In this session, we will explore livestock production systems, CAFOs, husbandry, and growing demand for animal products and its implications for climate change (i.e. deforestation and greenhouse gas emissions)

Readings:
Food and Agriculture Organization, Livestock’s Long Shadow, 2006.

**Week 4**

Class 4:1: **Film-debate session, Discussion forum**

We will project the documentary “A journey to fumigated Towns” where we will discuss the effects of agribusiness in Argentina. Effects of pesticides and other farming methods and agrochemicals that have been used in Argentina for several decades will be shown. New arising farming practices will be put on the table to set the frame of next sessions discussions. The debate will also be used as a discussion forum, where students will be asked to Students will be asked to choose from and represent in a forum a different variety of organizations with contrasting cognitive and culture maps around the intensive agro-industrial food production

Media Resource:
Film. Journey to fumigated towns (Viaje a los pueblos fumigados) – Senator Pino Solanas Will be provided by the instructor

Class 4:2 **Introduction to Agroecology and permaculture principles**
The session will explore some foundational aspects of permaculture & agroecology, and their implications for food safety and food sovereignty. We will also explore the philosophies lying behind these practices, in preparation for the site visit to Gaia the following week
**Readings:**

**Class 4:3: Alternative agriculture (with Guest speaker)**

Principles of alternative ways of growing food will be presented: integrated crop and pest management, plus organic, sustainable, and “climate smart” agriculture both in rural and urban contexts.

**Readings:**
TBC

**Week 5**

**Class 5:1: Site Visit to Ecovillage**

On-site visit to Gaia Eco village that focuses on the implementation of an educational process with constant research and learning of permaculture knowledge.

**Class 5:2** Midterm Exam to be done in class.

**Week 6**

**Class 6:1: Conventional vs alternative agricultural practices and Global Population Growth**

In this session, we will discuss costs, benefits, between different approaches and we will compare them with alternative natural fertilizers in terms of socio-economic efficiency considering the challenge of feeding 9.6 billion people by 2050.
Readings:
Julian Cribb, The Coming Famine, Pages 69-85; 154-167

Class 6:2: Final paper, presentations and feedback
Students will make an oral presentation about a set of cases related to a free choice subject that has direct link to themes seen during the course. Specific guidelines will be provided by the instructor to best develop the discussion around the presented cases.

Due: Final Paper & Oral Presentation

Readings:


**Media Resource**

Film. *Viaje a los pueblos fumigados* – Senator Pino Solanas