How does reduced rainfall impact the lives of people growing coffee in Honduras... and immigration in the USA? How does increasing consumption of meat in China influence deforestation of the Amazon Rainforest? How do subsidies for cotton in the USA effect cotton growers in Mali and the price of a t-shirt in Italy? These are a few of the complex issues we will explore this semester. Agriculture affects all of us. Every time we eat, go to the grocery store, or even buy clothing, we are participating in complex agricultural systems that are increasingly more globally integrated. This course takes an interdisciplinary approach, combining both natural and social science theory and scholarship to investigate topics such as climate change, technological applications to agriculture (e.g. GMOs), soil and water usage, the role of culture and local knowledge, and population growth. Over the course of the semester we will investigate issues receiving widespread attention from policymakers, national governments, academics, farmers, consumers, and many others. This class will place a specific emphasis on agriculture in the global South examining issues related to food security. As we explore the issues related to international agriculture, we will confront implications for national and global security, human rights, sustainability, and other ethical questions.

Bachelor of Arts: Social and Behavioral Sciences
International Cultures (IL)
General Education: Natural Sciences (GN)
General Education: Social and Behavioral Sciences (GS)
General Education - Integrative: Interdomain
GenEd Learning Objective: Crit and Analytical Thinking
GenEd Learning Objective: Global Learning
GenEd Learning Objective: Integrative Thinking

INTAG 199: Foreign Studies
1-12 Credits/Maximum of 12
Courses offered in foreign countries by individual or group instruction.
International Cultures (IL)

INTAG 296: Independent Studies
1-18 Credits/Maximum of 18
Creative projects, including research and design, which are supervised on an individual basis and which fall outside the scope of formal courses.

INTAG 297: Special Topics
1-9 Credits/Maximum of 9
Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 298: Special Topics
1-9 Credits/Maximum of 9
Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 299: Foreign Studies
1-12 Credits/Maximum of 12
Courses offered in foreign countries by individual or group instruction.
International Cultures (IL)

INTAG 300: Tropical Agriculture and Food Systems
3 Credits
The primary goal of this course is to inform students about tropical agriculture, including the environments of tropical agroecosystems, the production of crops, livestock and forestry within these systems, and major farming systems of the tropics. This class will focus on agriculture in developing countries in the tropics. Several examples from around the world will be included. By the end of this course students should be able to: 1. Describe the various environments of the tropics and explain the influence of these environments on tropical agroecosystems 2. Identify the major crops and livestock of the tropics and discuss their agroecological requirements and production in tropical environments 3. Identify and describe the major farming systems of the tropics 4. Critically analyze the important issues facing contemporary tropical agriculture.
International Cultures (IL)

INTAG 397: Special Topics
1-9 Credits/Maximum of 9
Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 398: Special Topics
1-9 Credits/Maximum of 9
Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 399: Foreign Studies
1-12 Credits/Maximum of 12
Courses offered in foreign countries by individual or group instruction.
International Cultures (IL)

INTAG 460: International Food Production
1 Credits/Maximum of 3
FDSC 460 / INTAG 460 is designed to give food science undergraduate and graduate students an appreciation of how food is produced and processed abroad. Students participate in a number of production facility tours, interact with local food scientists and food technologists, and gain valuable international experience. A major point of emphasis for the course is comparing and contrasting food production norms in the U.S. and the host country or region. The course consists of pre-trip
lectures and meetings and culminates in a faculty-guided embedded
study tour. Prior to the travel component of the course, students work
in small groups to research a specific food product that is of economic
and cultural importance to the country or region of interest, then write
reports to be presented in-country before a tour of the related product's
production facility. The course integrates and builds upon core concepts
in food chemistry and food microbiology; as such, FDSC 460 / INTAG 460
is targeted towards upper-level food science undergraduate students, as
well as food science graduate students.

Prerequisites: FDSC 200, Permission of program

International Cultures (IL)

INTAG 470A: Comparing Agricultural and Food Systems in the US and
France: Lecture

2.5 Credits

This course is designed to explore key similarities and differences in
the food and agricultural systems of the United States and France. It
introduces students to a number of overarching food and agricultural
topics that pertain to both countries, and students explore and analyze
these key issues from both countries perspective. These overarching
topics include the structure of agricultural and environmental policies,
the use agricultural land for biofuel production, organic agriculture,
food safety, attitudes and policies surrounding the use of genetically
modified crops, the role of large agribusiness firms, attitudes towards
diet and health, and several others important topics. Students conduct
background reading on these topics, hear lectures – sometimes
from guest presenters – that frame the topics from both the U.S. and
France's perspective, and write reports on specific crops or foods that
expose key similarities and differences between the two food systems.
Finally, students pick one crop or food for an oral presentation that
contains background information on how that crop fits into the two food
systems, U.S. and France, and analyzes the key issues that relate to the
overarching topics already identified. This course has two components
that must be taken in partnership: 470A (FOOD SYS US/FRANCE I)
and 470B (FOOD SYS US/FRANCE II). The first is a classroom - based
course, and meets regularly during the semester. The second is a two
week component that takes place after the end of the semester. In this
second component, after traveling to France, students hear presentations
from the French perspective on the overarching topics identified earlier
and also explore the topics first hand via field trips to farms, wholesale
markets, retail markets, and other places relevant to the French food
system. This component is organized by a host university, AgroParisTech.
For these two weeks, students live in dorms within the city of Paris.
Knowledge of French is not required.

Prerequisite: INTAG470A or AG BM470A

INTAG 470B: Comparing Agricultural and Food Systems in the United
States and France: Travel

0.5 Credits

Explore key differences and similarities in the food and agricultural
systems of the United States and France. INTAG 470B / AGBM 470B
Comparing Agricultural and Food Systems in the US and France: Travel
(0.5) This course is designed to explore key similarities and differences
in the food and agricultural systems of the United States and France. It
introduces students to a number of overarching food and agricultural
topics that pertain to both countries, and students explore and analyze
these key issues from both countries perspective. These overarching
topics include the structure of agricultural and environmental policies,
the use agricultural land for biofuel production, organic agriculture,
food safety, attitudes and policies surrounding the use of genetically
modified crops, the role of large agribusiness firms, attitudes towards
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week component that takes place after the end of the semester. In this
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markets, retail markets, and other places relevant to the French food
system. This component is organized by a host university, AgroParisTech.
For these two weeks, students live in dorms within the city of Paris.
Knowledge of French is not required.

Prerequisite: INTAG 100; AGBM 101; ECON 102

Cross-listed with: AGBM 470A

INTAG 470B: Comparing Agricultural and Food Systems in the United
States and France: Travel

0.5 Credits

Seminar discussions on contemporary topics in global agriculture;
capstone course for INTAG minor. INTAG 490 Senior Seminar in
International Agriculture (3) This course is designed to meet the need
for a capstone course within the International Agriculture (INTAG) minor.
The course provides a range of experiential learning techniques including
intensive reading and in-class discussion, practical experience through a
group trip to the nation's capital, and application of the international
experiences encountered through the INTAG program. Included is
course content designed to provide a holistic integration of the four
main INTAG study areas (Socioeconomic and Communication Systems,
Animal and Plant Sciences, Natural Resources and the Environment,
and Food, Health, and Nutrition). Students will learn about the current
state of international agriculture through recent articles and analyses
and respond in-class discussions and through written response papers.
The second half of the course involves site visits to major international
development organizations in Washington, D.C. (US government,
international agricultural research organizations, and various NGOs) and
participation in the form of an INTAG senior seminar series open to the
public. This seminar series allows students to present and discuss their
past (or intended) international agriculture experiences while a student
at Penn State, and share with both those in the class and those outside
of the class options, opinions about and critical issues in international
agriculture. This seminar series will be an important tool in promoting
the INTAG minor. The students will then synthesize the knowledge they
have obtained both from the course and their international agriculture
experiences to complete final reports which outline their understanding
of the current state of international agriculture. This course is ultimately
designed to facilitate the development of students to be global citizens
in the agricultural arena. The course is geared towards students in their
junior or senior years. Evaluation consists of class participation (20%),
student-led presentation of materials (15%), response papers to readings
and D.C. trip (30%); presentation at INTAG seminar series (15%) and the completion of a final paper on their understanding of the current state of international agriculture (20%). The course is offered once every academic year in the Spring semester. The course is a core requirement for the International Agriculture minor. INTAG 100 is a prerequisite.

**Prerequisite:** INTAG 100

INTAG 495: Internship in International Agriculture

1-13 Credits

Observation of and participation in the operation and management of a University-approved international agricultural firm or international agricultural development agency.

**Prerequisite:** Prior approval of proposed internship plan

Full-Time Equivalent Course

INTAG 496: Independent Studies

1-18 Credits/Maximum of 18

Creative projects, including research and design, which are supervised on an individual basis and which fall outside the scope of formal courses.

INTAG 497: Special Topics

1-9 Credits/Maximum of 9

Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 498: Special Topics

1-9 Credits/Maximum of 9

Formal courses given infrequently to explore, in depth, a comparatively narrow subject which may be topical or of special interest.

INTAG 499: Foreign Studies

1-12 Credits/Maximum of 12

Courses offered in foreign countries by individual or group instruction.

International Cultures (IL)