

Approved Course List for Meeting Requirements for International Agriculture Secondary Major and Minor (Effective Fall 2025)

Required Course: Agron 3420: World Food Issues: Past and Present

3 Cr.

(Cross-listed with ENV S, FS HN)

Issues associated with global agricultural and food systems including ethical, social, economic, environmental, and policy contexts. Investigation of various causes and consequences of over nutrition/undernutrition, poverty, hunger, access, and distribution.

****AgEdS 4960A**

1-3 Cr.

International Agricultural Travel Course

One to three credits each time taken. Extended field trips to study agriculture and education related topics. Location and duration of trips will vary. Pre-trip sessions arranged.

****Agron 4960A**

Cr. Arr.

International Agricultural Travel Course

Tour and study of production methods in major crop and livestock regions of the world. Influence of climate, economics, geography, soils landscapes, markets, and other factors on crop and livestock production. Location and duration of tours will vary. Check with department for current offerings.

****An S 4960A**

Cr. Arr.

International Agricultural Travel Course

Repeated (approx. one-half credit per week traveled in each An S 4960 and Agron 4960). Prereq: Students enroll in both An S 4960 and Agron 4960. Tour and study of production methods in major crop and livestock regions of the world. Influence of climate, economics, geography, soils, landscapes, markets, and other factors on livestock and crop production. Locations and duration of tours will vary. Summer tour will usually visit a northern location and winter tour will usually visit a southern location. Information usually available 9 months before departure.

****Econ 4960**

1-3 Cr.

International Economics Travel Course

One to three credits each time taken. Tour and study of international agricultural and/or nonagricultural economies, markets and institutions. Locations and duration of tours will vary.

****Hort 4960**

1-3 Cr.

International Horticulture Travel Course

Credits may be repeated. Study and tour of production methods in major horticultural regions of the world. Influence of climate, economics, geography, soils, landscapes, markets, cultures, and history of horticultural crops. Location and duration of tours will vary.

**** Soc 4960**

3 Cr.

Agriculture and Rural Development in Ireland

Comparative analysis of the agricultural and rural development needs of Ireland and the U.S. Course involves a 2-week tour of the Irish countryside where students can observe and experience small town and farm life.

**** Nrem 4960A**

3 Cr.

Travel Course

Limited enrollment. Extended field trips.

- A Ecl 4550**
3 Cr. **International Wildlife Issues**
Biological, political, social, and economic factors affecting the management of international wildlife resources.
- *AgEdS 4610/5610**
3 Cr. **Technology Transfer and the Role of Agricultural and Extension Education**
Impact of agricultural and extension education processes on development and their role in the transfer of agricultural technology. Utilizing situational analysis techniques to analyze and solve problems in international agricultural education programs.
- Agron 1400**
3 Cr **Climate and Society** (*Cross-listed with MTEOR 1400/ ENV S 1400/ GEOL 1400*)
The climate system of our planet. How nature and our actions alter the existing energy balance leading to climate change. Past climates on our planet. The influence of climate on society and resource availability during the Holocene (~ 11,000 years ago to present) with focus on changes post industrial revolution. Significant climate events that have altered our way of life in the past. Projected changes in future climate and potential impacts on society, environment and resources. Adaption to and mitigation of climate change.
- Agron 1600**
3 Cr. **Water Resources of the World** (*Cross-listed with ENV S, GEOL, MTEOR*).
Study of the occurrence, history, development, and management of world water resources. Basic hydrologic principles including climate, surface water, groundwater, and water quality. Historical and current perspectives on water policy, use, and the role of water in society and the environment.
- Agron 1800**
3Cr. **Global Agriculture in a Changing World**
A scientific investigation of the global distribution of climate, soils and agricultural production and consumption. Physical processes that connect natural resources to agriculture and the environment. How global change drives increasing demand for agricultural production.
- *Agron 4040/5040**
3 Cr. **Global Change** (*Cross-listed with ENV S, GEOL, MTEOR*)
Recent changes in global biogeochemical cycles and climate; models of future changes in climate system; impacts of global change on agriculture, water resources and human health; ethical issues of global environmental change.
- Agron 4060**
3 Cr. **World Climates** (*Cross-listed with ENV S, MTEOR*)
Distribution and causes of different climates around the world. Effects of climate and climate variations on human activities including society, economy and agriculture. Current issues such as climate change and international efforts to assess and mitigate the consequences of a changing climate. Semester project and in-class presentation required.
- Agron 4460**
3 Cr. **International Issues and Challenges in Sustainable Development** (*Cross-listed with GLOBE, INTST*)
Interdisciplinary study and comparison of agricultural systems around the world, including analysis of biophysical, social, economic, and political determinants of the systems. Emphasis on the interrelationships among system determinants.

Analysis of system constraints and solution strategies. Evaluation of the productivity and sustainability of the systems. Team project and report.

Agron 4500
3 Cr.

Issues in Sustainable Agriculture (*Cross-listed with ENV S*)

Agricultural science as a human activity, contemporary agricultural issues from agroecological perspective. Comparative analysis of intended and actual consequences of development of industrial agricultural practices.

AN S 4410
3 Cr

International Animal Agriculture (*Cross-listed with GLOBE*)

An overview of animal agriculture with emphasis in developing countries. Historical, economic, environmental, and political considerations will be assessed and evaluated. Issues related to gender, resilience and sustainability for different production systems including alternative livestock species, will be investigated. The role of animal source foods in attainment of global food security will be discussed.

An Sc 4950
R Cr.

Ag Travel Course Preparation

Econ 3550
3 Cr.

International Economics

Explanations of causes of international trade and the impact of trade on welfare and employment patterns. Analysis of government policies towards trade, such as tariffs, quotas, and free trade areas. Theory of balance of payments and exchange rate determination, and the role of government policies. Examination of alternative international monetary arrangements.

Econ 3850
3 Cr.

Economic Development

Current problems of developing countries, theories of economic development, agriculture, and economic development, measurement and prediction of economic development, measurement and prediction of economic performance of developing countries, alternative policies and reforms required for satisfying basic needs of developing countries, interrelationships between industrialized countries and the developing countries, including foreign aid.

Econ 4550
3 Cr.

International Trade

Rigorous treatment of theories of international trade and its impact on domestic and world welfare and the distribution of income. Theoretical analysis of government policies towards trade, such as quotas, tariffs and free trade areas. Theory of exchange rate and balance of payments determination and the role of government policy, study of efficiency of the foreign exchange market. Examination of alternative international monetary

Econ 4570
3 Cr.

International Finance

National income accounting and balance of payments; foreign exchange rates and exchange rate markets; money, interest rates, and exchange rate determination; prices, exchange rates, and output in the short run; international monetary arrangements; fixed versus flexible exchange rates; optimal currency areas; international capital flows; currency and financial crises in emerging markets.

Econ 4600

Agricultural, Food, and Trade Policy

3 Cr. Description and analysis of economic problems of U.S. agriculture. Explanation and economic analysis of government policies and programs to develop agriculture, conserve agricultural resources, address consumer food concerns, stabilize farm prices, and raise farm incomes. The influence of macropolicy, world economy, and international trade on U.S. agriculture.

Ent 3740 Insects and Our Health

3 Cr. Identification, biology, and significance of insects and arthropods that attack people and animals, particularly those that are vectors of disease.

FSHN 4600/5600 Global Nutrition (*Dual-listed with NUTRS 560 FS HN 560*).

3 Cr. An overview of global nutrition issues, including the sociocultural, biological, economic, and environmental context of nutrition related topics. The etiology, epidemiology, and program/policy responses to issues will be presented. Areas to be covered include childhood malnutrition, growth stunting, micronutrient deficiencies, parasites and nutrition, sanitation, and obesity and chronic disease incidence in developing countries. Participatory course, students will engage in a series of class activities, discussions, and presentations.

For 4600 Agroforestry Systems

3 Cr. Agroforestry systems in temperate and tropical regions. Ecological, socioeconomic and political aspects of Agroforestry.

GLOBE 3600 Global Health. (*Cross-listed with MICRO and V MPM*).

3 Cr. Explores human health across the world with particular emphasis on low- and lower-middle-income countries. Attention is given to the interconnectedness of health determinants, problems, and solutions found in global health, including the role of animals and the environment. Broad in scope, highlighting different cultures and the historical foundations of global health. Topics include colonialism, poverty, emerging diseases, climate change, biodiversity, one health, maternal and child health, HIV, malaria, urbanization, noncommunicable diseases and more. Current events will be a feature of all class meetings.

Soc 2200 Globalization and Sustainability (*Cross-listed with ANTHR, ENV S, GLOBE, ME, MAT E*).

3 Cr. An introduction to understanding the key global issues in sustainability. Focuses on interconnected roles of energy, materials, human resources, economics, and technology in building and maintaining sustainable systems. Applications discussed will include challenges in both the developed and developing world and will examine the role of technology in a resource-constrained world.

Soc 3450 Population and Society

3 Cr. Human population growth and structure, impact on food, environment and resources. Comparison of US with other societies around the world.

Soc 3480 Global Poverty, Resources, and Sustainable Development

3 Cr. Trends in hunger, poverty, resource use and development. Assessment of theories, policies, and programs to promote sustainable livelihoods, resource management, and development at local and national levels. Examine solutions through institutional efforts and grassroots social movements.

Soc 4110
3 Cr.

Social Change in Developing Countries

Social change and development in developing countries; international interdependence; causes and consequences of persistent problems in agriculture, city growth, employment, gender equality, basic needs; local and worldwide efforts to foster social change and international development.

*Dual-level courses-primarily for Graduate students, open to qualified undergraduate students.
Contact the Instructor.

**Travel courses can be used to meet study abroad portion of requirements for secondary major or minor in International Agriculture.

Students are advised to consult their advisor about additional internationally focused courses within CALS or their department. Afterward, they should contact Dr. Ebby Luvaga (luvaga@iastate.edu), the CALS Coordinator for International Agriculture as a Secondary Major, for approval.

Last updated, October 25, 2024