

# INTERNATIONAL AGRICULTURAL DEVELOPMENT, BACHELOR OF SCIENCE

## College of Agricultural & Environmental Sciences

International Agricultural Development is an interdisciplinary major housed in the Plant Sciences department. Students learn to apply existing and emerging agricultural technologies and strategies to address global poverty. Students can choose to focus on social sciences or natural sciences. This interdisciplinary program includes courses in animal and plant sciences, soil and environmental sciences, sociology and economics, community development and Native American studies. There are four areas of specialization: Agricultural Production, Trade & Economic Development, Environmental Issues, and Rural Communities. Students participate in internships or study abroad to round out their education. Graduates move on to serve in the Peace Corps, work for governmental or non-governmental organizations, or work in international trade.

## Faculty

Includes members from various departments across colleges.

## Advisors

**Staff Advisor.** Honora Knopp; plsadvising@ucdavis.edu

**Faculty Advisor.** Amanda Crump; acrump@ucdavis.edu

The major requirements below are in addition to meeting University Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/university-degree-requirements/>) & College Degree Requirements (<https://catalog.ucdavis.edu/undergraduate-education/college-degree-requirements/>); unless otherwise noted. The minimum number of units required for the International Agricultural Development Bachelor of Science is 118.

Code	Title	Units
<b>Preparatory Subject Matter</b>		
CRD 001	The Community	4
IAD 010	Introduction to International Agricultural Development	4
PLS 002	Botany & Physiology of Cultivated Plants	4
MAT 019A	Calculus for Data-Driven Applications	4
<i>Soil Science</i>		
SSC 010	Soils in Our Environment	3-5
or SSC 100	Principles of Soil Science	
<i>Economics</i>		
ECN 001A	Principles of Microeconomics	4
or ECN 001AV	Principles of Microeconomics	
or ECN 001AY	Principles of Microeconomics	
ECN 001B	Principles of Macroeconomics	4
or ECN 001BV	Principles of Macroeconomics	
Choose one:		4-5
STA 013	Elementary Statistics	

or STA 013V	Elementary Statistics	
or STA 013Y	Elementary Statistics	
SOC 046	Introduction to Social Research Methods	
PLS 120	Applied Statistics in Agricultural Sciences	
Choose 6 units:		6
ARE 015	Population, Environment & World Agriculture	
ANS 041	Domestic Animal Production	
ANS 041L	Domestic Animal Production Laboratory	
CRD 020	Food Systems	
NUT 010	Discoveries & Concepts in Nutrition	
or NUT 010V	Discoveries & Concepts in Nutrition	
or NUT 010Y	Discoveries & Concepts in Nutrition	
PLS 001	(Discontinued for summer 2024) **	
PLS 015	Introduction to Sustainable Agriculture	
PLS 049	Organic Crop Production Practices	
Preparatory Subject Matter Subtotal		37-40
<b>Depth Subject Matter</b>		
ECN/ARE 115A	Economic Development	4
IAD 103	Social Change & Agricultural Development	4
IAD 170	Program Development for International Agriculture	4
ARE 147	Resource & Environment Policy Analysis	3
or PLS 101	Agriculture & the Environment	
Choose a minimum of 5 units:		5
IAD 142	Equipment & Technology for Small Farms	
IAD/PLS 160	Agroforestry: Global & Local Perspectives	
PLS 110	Crop Management Systems for Vegetable Production	
PLS 111	Principles of Crop Production	
PLS 112	Forage Crop Production	
PLS 130	Grassland Ecology	
Choose a minimum of 4 units:		4
SOC 170	Population	
CRD 141	Organization of Economic Space	
CRD 162	People, Work & Technology	
Choose 4 units:		4
CRD 142	Rural Change in the Industrialized World	
CRD 149	Community Development Perspectives on Environmental Justice	
CRD 152	Community Development	
Choose 4 units:		4
POL 123	The Politics of Interdependence	
POL 124	The Politics of Global Inequality	
SOC 145A	Sociology of Third World Development	
ANT 126A	Anthropology of Development	
ANT 126B	Women & Development	
ANT 131	Ecology & Politics	
Depth Subject Matter Subtotal		32
<b>Foreign Language Requirement</b>		
Students must complete:		0-15
Three sequenced quarters (15 units) of courses in one foreign language:		

• SPA 001 or SPA 001V or SPA 001Y & SPA 002 or SPA 002V or SPA 002Y & SPA 003 or SPA 003V or SPA 003Y OR SPA 001A or SPA 001S in combination with other courses to complete 15 units.	
• FRE 001 or FRE 001Y & FRE 002 or FRE 002Y & FRE 003 or FRE 003Y, or FRE 001A.	
• CHN 001, CHN 002, CHN 003.	
• POR 001, POR 002, POR 003 or POR 001A.	
Or passing a foreign language proficiency examination	
Or received a score of 5, 4, or 3 on a foreign language Advanced Placement examination (except Latin)	
Or received a score of 550 on the SATII: Subject Test will also satisfy this requirement.	
Foreign Language Requirement Subtotal	0-15
<b>Internship Requirement</b>	
Students must complete at least 4 units of internship. Internships can be chosen in consultation with an advisor. Internship requirement waived for students enrolled in the UC Education Abroad Program.	4
Internship Requirement Subtotal	4
<b>Areas of Specialization</b>	
Choose one:	45-46
Agricultural Production Option (p. 2)	
Environmental Issues Option (p. 2)	
Rural Communities Option (p. 3)	
Trade & Economic Development Option (p. 3)	
Subtotal	45-46
<b>International Agricultural Development Abroad</b>	
Choose 0-40 units:	0-40
International Agricultural Development Abroad Subtotal	0-40
<b>Total Units</b>	<b>118-177</b>

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Course(s) discontinued; see your advisor for course options.

## Areas of Specialization

### Agricultural Production Option

Code	Title	Units
BIS 002A	Introduction to Biology: Essentials of Life on Earth	5
BIS 002B	Introduction to Biology: Principles of Ecology & Evolution	5
CHE 002A	General Chemistry	5
CHE 002B	General Chemistry	5
Choose 15 units:		15
ANS 118	Fish Production	
ANS 124	Lactation	
ANS 143	Pig & Poultry Care & Management	
ANS 144	Beef Cattle & Sheep Production	
ANS 145	Meat Processing & Marketing	
ANS 146	Dairy Cattle Production	
AVS 121	Avian Reproduction	
ENT 110	Arthropod Pest Management	
ENT 135	Introduction to Biological Control	

ENH 100	Urban Forests are Nature-Based Solutions
ENH 133	Woody Plants in the Landscape: Growth, Ecology & Management
ESM 100	Introduction to Water Science
HYD 124	Plant-Water-Soil Relationships
IAD 142	Equipment & Technology for Small Farms
IAD/PLS 160	Agroforestry: Global & Local Perspectives
PLP 120	Introduction to Plant Pathology
PLS 110	Crop Management Systems for Vegetable Production
PLS 111	Principles of Crop Production
PLS 112	Forage Crop Production
PLS 113	Biological Applications in Fruit Tree Management
PLS 114	Biological Applications in Fruit Production
PLS 130	Grassland Ecology
PLS 150	Sustainability & Agroecosystem Management
PLS 170A	Fruit & Nut Cropping Systems
PLS 170B	Fruit & Nut Cropping Systems
PLS 172	Biology and Quality of Harvested Crops
PLS 176	Introduction to Weed Science
SSC 109	Sustainable Nutrient Management
SSC 118	Soils in Land Use & the Environment

### Restricted Electives

Courses selected in consultation with an advisor. 10

**Total Units 45**

## Environmental Issues Option

Code	Title	Units
ESP 001	Environmental Analysis	4
<i>Biological Science</i>		
BIS 002A	Introduction to Biology: Essentials of Life on Earth	5
BIS 002B	Introduction to Biology: Principles of Ecology & Evolution	5
Choose 16 units:		16
ARE 147	Resource & Environment Policy Analysis	
ARE 175	Natural Resource Economics	
ARE 176	Environmental Economics	
ESP 100	General Ecology	
ESP/ANT 101	Ecology, Nature, & Society	
ESP 110	Principles of Environmental Science	
ESP 160	The Policy Process	
ESP 161	Environmental Law	
ESP 170	Conservation Biology Policy	
ESP 171	Urban & Regional Planning	
ESP 172	Public Lands Management	
ESP 175	Natural Resource Economics	
PLS 101	Agriculture & the Environment	
PLS 147	California Plant Communities	
PLS 147L	California Plant Communities Field Study	

PLS 150	Sustainability & Agroecosystem Management	
ENH 150	(Discontinued for spring 2025) **	
ENH 160	Restoration Ecology	
ENH 160L	Restoration Ecology Laboratory	

*Restricted Electives*

Courses selected in consultation with an advisor.	15
<b>Total Units</b>	<b>45</b>

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Course(s) discontinued; see your advisor for course options.

**Rural Communities Option**

Code	Title	Units
ANT 002	Cultural Anthropology	5
SOC 001	Introduction to Sociology	5
or SOC 001V	Introduction to Sociology	

Choose 16 units: 16

CRD 140	Dynamics of Regional Development	
CRD 147	Community Youth Development	
CRD 149	Community Development Perspectives on Environmental Justice	
CRD 151	Community Field Research: Theory & Analysis	
CRD 152	Community Development	
CRD 153A	International Community Development: Asia	
CRD 153B	International Community Development: Europe	
CRD 154	Social Theory & Community Change	
CRD 164	Theories of Organizations & Their Role in Community Change	
CRD 172	Social Inequality: Issues & Innovations	
CRD 176	Comparative Ethnicity	
CRD 180	Transnational Community Development	

*Restricted Electives*

Courses selected in consultation with an advisor.	20
<b>Total Units</b>	<b>46</b>

**Trade & Economic Development Option**

Code	Title	Units
ANT 002	Cultural Anthropology	5
or SOC 001	Introduction to Sociology	
or SOC 001V	Introduction to Sociology	
MAT 019B	Calculus for Data-Driven Applications	4

Choose 20 units: 20

ARE 015	Population, Environment & World Agriculture	
ARE 100A	Intermediate Microeconomics: Theory of Production & Consumption	
ARE 100B	Intermediate Microeconomics: Imperfect Competition, Markets & Welfare Economics	
ARE 115B/115BY/ ECN 115B/115BY	Economic Development	
ARE 120	Agricultural Policy	

ARE 121	Economics of Agricultural Sustainability
ARE 130	Agricultural Markets
ARE 136	Managerial Marketing
ARE 138	International Commodity & Resource Markets
ARE 139	Futures & Options Markets
ARE 175	Natural Resource Economics
ARE 176	Environmental Economics
CRD 141	Organization of Economic Space
ECN 160A	International Microeconomics
or ECN 160AY	International Microeconomics
ECN 160B	International Macroeconomics

*Restricted Electives*

Courses selected in consultation with an advisor.	17
<b>Total Units</b>	<b>46</b>