

Agroecology Certificate Program

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This interdisciplinary program is aimed at providing students with an opportunity to learn problems and issues that emerge from the interface between agriculture, natural ecosystems and urban areas. Students will gain an appreciation of how traditional agricultural production systems will influence the quality of natural ecosystems and human environment, and also what ecological and developmental pressure that agriculture comes under from the human system. The program will emphasize natural and economic services that are provided by large agricultural areas interspersed between urban and natural areas. Students will learn structural changes that are necessary within agriculture in order to make it ecologically sustainable and community supported. The program includes farm- and field-level experiential learning through internships, field demonstrations and minor experiments. This certificate program is open to degree-seeking students only.

Requirements

Prescribed Courses and Other Requirements:

The Agroecology Certificate Program requires successful completion of the following three categories of course work, with a total of 17-18 credit hours:

1. Agroecology core requirement:

EVR 4274	Sustainable Agriculture - GL	3
EVR 4272	Agroecology	3

2. Agricultural internship or problem analysis: Take any one of the following:

AGG 4941	Agriculture Internship	2
EVR 4905	Independent Study	2
BSC 4914	Student Research Lab	2
BSC 4914	Student Research Lab	2
BSC 3949	Cooperative Education in Biology	2
BSC 4915L	Honors Research	2

As part of the above course, student must complete a farm-, field-or lab-based internship that may involve working on farms, carrying out agro-ecological field observations, carrying out agricultural science lab experiments, or conducting agriculture-related socio-economic analysis. Student will produce a report based on the internship experience. Students also will have the option of doing internship or

conducting agroecology science experiments at USDA's Agricultural Research Service, Miami or other research or education institutions.

3. General agricultural/environmental science and social studies electives:

Take any three of the following.

AEB 4131	Farm Economics and Management	3
AGR 4240	Modern Crop Production	3
HOR 3012	Introduction to Horticulture	3
IPM 4020	Integrated Pest Management	3
EVR 4592	Soils and Ecosystems	3
SWS 4303	Soil Microbiology	3
IDS 3189	Public Health, Nutrition and Economic Development - <i>GL</i>	3
EVR 3723	Natural Resources Valuation and Economics	3
EVR 3010	Introduction to Environmental Science: Energy Flows	3
EVR 3013	Ecology of South Florida	3
GIS 3043	Introduction to GIS	3
EVR 4026	Biotic Resources	3
EVR 4211	Water Resources	3
EVR 4310	Energy Resources	3
EVR 4321	Sustainable Resource Development	3
EVR 4323	Restoration Ecology	3
EVR 4401	Conservation Biology	3
EVR 4352	U.S. Environmental Policy	3
EVR 4415	Population and Environment	3
ECP 3302	Environmental Economics	3
ECP 4314	Natural Resource Economics	3
GEO 3510	Earth Resources – <i>GL</i>	3
GEO 4476	Political Ecology	3
GEO 4354	Geography/Global Food System – <i>GL</i>	3
GLY 3039	Environmental Geology	3
ENY 1004	General Entomology	3
ENY 4060	Advanced Entomology	3
MCB 3020	General Microbiology	3
MCB 3020L	General Microbiology Lab	2
MCB 4603	Microbial Ecology	3
MCB 4653	Food Microbiology	3
PCB 2061	Introductory Genetics	3
PCB 4301	Freshwater Ecology	3
MCB 2000	Introductory Microbiology – <i>GL</i>	3
BOT 3014	Plant Life Histories	3
BOT 3154	Local Flora	3
BOT 3663	Tropical Botany	3

BOT 3810	Economic Botany	3
BOT 4503	Plant Physiology	3
BSC 4422	Biotechnology: Applications in Industry, Agriculture and Medicines	3
INR 3043	Population and Society	3
INR 4054	World Resources, World Order	3

The Certificate Committee will consider other courses toward the elective requirement on a case-by-case basis. Up to two courses taken at Miami Dade College or other colleges in the relevant areas of agricultural sciences, horticulture, ecology, and environmental sciences will count toward the ecology course requirement and general agricultural/environmental science elective requirement.

Note: Student interested in the Agroecology Certificate may submit the FIU Certificate Program Application Form to the Agroecology Program Coordinator in ECS 157 and discuss the course plan with the Committee Chair or any of the members (listed above). Once the course requirements are completed, during the semester that student graduates from his/her undergraduate degree program at FIU, the student must bring a copy of the transcript to the Agroecology Program Coordinator in ECS 157 in order to let the Program know that he/she is ready to graduate. Appropriate paper work will follow and the final Certificate of Completion will be issued after the graduation provided the student has completed all the Certificate requirements.

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