

Graduate Group in Ecology (GGE)
Area of Emphasis (AOE): Agricultural Ecology
Subfield of Specialization (SOS): Genetics, Plant Breeding and Population Ecology
http://ecology.ucdavis.edu/AOE/AgEco/ageco_home.htm

Overview

One of the most diverse programs on campus, the Graduate Group in Ecology offers M.S. and Ph.D. degree programs in several areas of specialization within the spectrum of ecology, one being the Genetics, Plant Breeding, and Population Ecology subfield of specialization within the Agricultural Ecology area of emphasis. The study of plant breeding through this program is recommended for those students primarily interested in the origins of crop species and centers of diversity; the characterization and maintenance of crop germplasm; crop domestication; and the ecological considerations of crop development and deployment.

GGE general requirements

Core Courses

ECL200A: Principles and Applications of Ecological Theory (4 units, Fall)

ECL200B: Principles and Applications of Ecological Theory (4 units, Winter)

Seminars

ECL296: Ecology and Evolution Seminar Series (required each quarter of first year; recommended thereafter)

ECL290: Seminar in Ecology (1 for the M.S. degree, 3 for the Ph.D.) These quarterly seminars on specific topics are led by Ecology faculty; students required to make a presentation.

One course in field ecology

At least one course in field ecology must be completed prior to matriculation or during the course of the program. For suggested organizations for field courses, see

http://ecology.ucdavis.edu/Courses/Field_courses.htm

One course in evolution

One course in evolution is required and may be satisfied prior to admission. If not previously satisfied, EVE 100 (Introduction to Evolution, 4 units) must be taken.

Exit Seminar

For the Ph.D. candidate, an exit seminar is required prior to filing of dissertation. This requirement is optional for the M.S. (thesis option) but is recommended.

Additional requirements for the Agricultural Ecology AOE,
Genetics, Plant Breeding and Population Ecology SOS

Agroecology core course

ECL 216: Ecology and Agriculture (3 units, Fall)

One course in human ecology or economics

Such as EST/ANT 101: Human Ecology (4 units, Winter)

Five examination topics

Examination topics are meant to correspond to potential qualifying examination topics. All GGE students must have five such topics. Two of these are required by the GGE to be:

1) Principles of Ecology

The GGE core courses ECL200A and B are taken in preparation)

2) Research Methodology and Quantitative Skills

Any two courses from the following list can be taken in preparation:

- PLS205: Experimental Design and Analysis (4 units, Winter)
- PLS206: Multivariate Systems and Modeling (4 units, Spring)
- ECL206: Concepts and Methods in Plant Community Ecology (4 units, Fall)
- MPM402 (Preventive Veterinary Medicine 402): Medical Statistics I (4 units, Summer)
- MPM403 (Preventive Veterinary Medicine 402): Medical Statistics II (4 units, Fall)

The three optional topics are based on the SOS and may be satisfied by any of the selections from the following list, or by a substitute approved by the students' guidance committee.

- PLS222: Advanced Plant Breeding (4 units, Spring)
- ECL204: Population and Community Ecology (4 units, offered in alternate years)
- ECL207: Plant Population Biology (3 units, Winter)
- PLB152: Plant Genetics (4 units, Spring)
- PLS154: Introduction to Plant Breeding (4 units, Winter)

These courses above are meant as suggestions only and may be substituted with the consent of the guidance committee.

Note: While effort has been made to represent this program as accurately as possible, for the latest and most reliable information regarding program requirements, be sure to contact the current program representative.