

Graduate Group in Horticulture & Agronomy (GGHA)
Specialization: Breeding and Genetics for Crop Improvement
<http://ggha.ucdavis.edu>

Overview

The Graduate Group in Horticulture & Agronomy offers M.S. and Ph.D. degree programs in several areas of specialization spanning the production, management, and utilization of horticultural and agronomic plants as well as the postharvest handling of horticultural commodities. Within the broad options of agronomy, environmental horticulture, pomology, vegetable crops, viticulture, and weed science, students can specialize in the area of Breeding and Genetics for Crop Improvement. Research may be conducted on an applied or basic problem having a physiological, genetic, or ecological emphasis. The study of plant breeding through this program is recommended for those students interested in the development, deployment, and production systems of improved varieties.

M.S. requirements

Plan I – Thesis Option

To complete the degree, a minimum of thirty (30) units of upper division and graduate courses and a thesis are required. At least 12 of the 30 units must be in graduate courses in the major field. The thesis must be based on experimental research.

Plan II – Exam Option

To complete the degree, a minimum of thirty-six (36) units of upper division and graduate course work and satisfactory performance on a comprehensive final examination are required. At least 18 of the 36 units must be earned in graduate courses in the major field, and no more than 9 of these may be research (299) units. The GGHA requires a minimum of 6 units of original research with a written report submitted to the Graduate Adviser. A faculty committee of three (3), nominated by the Graduate Adviser and appointed by the Graduate Dean, administers the exam.

Core Course

HRT 290: GGHA Seminar (1 unit, Fall)

One course in professionalism and ethics, which may include

GGG 296: Scientific Professionalism & Integrity (2 units, Fall)

NUT 492A: Professionalism (2 units, Fall/Winter)

One course in ecology, which may include

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

PLB 142: Ecology of Crop Systems (4 units, Winter)

PLB/EVE 117: Plant Ecology (4 units, Fall)

One course on research methods or perspectives, which may include

HRT 203: Research Perspectives in Horticulture (3 units, Fall – alternate years)

PBI 225: Methods & Instrumentation for Crop and Soil Science (3 units, Spring – alternate years)

PLS/AGR 205: Experimental Design and Analysis (4 units, Winter)

PLS/AGR 206: Multivariate Systems and Modeling (4 units, Spring)

ECL 206: Concepts and Methods in Plant Community Ecology (4 units, Fall)

Seminars

Three graduate seminars are required, including at least one outside the student's home department

Research

A minimum of 6 units is required

Other courses

Courses taken for the chosen option (agronomy, environmental horticulture, pomology, vegetable crops, viticulture, or weed science) must include at least one graduate course.

For a list of suggested courses, please visit the GGHA website <http://ggha.ucdavis.edu>.

Ph.D. requirements

The GGHA Ph.D. program is approved to begin in Fall 2007. Please monitor the GGHA website for requirements for this program, as they become available.

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.