HORTICULTURE (HORT)

HORT 514: Modern Techniques and Concepts in Plant Ecophysiology

2 Credits

An intensive introduction to concepts of plant ecophysiology and modern techniques used in this field.

**Prerequisite:** BIOL 220W
Cross-listed with: PLBIO 514

HORT 517: Ecology of Plant Roots

2 Credits

Form and function of roots from an ecological perspective using examples from both wild and crop plants.

HORT 573: Interpreting Data from Experiments with Quantitative Treatments

3 Credits/Maximum of 999

Interpreting Data from Experiments with Quantitative Treatments (HORT 573) is an applied regression course that employs statistical analysis in the context of agricultural/horticultural experimentation. Analytical approaches include: descriptive statistics, data distribution(s), data graphing/representation, correlation, least squares linear regression, general linear models, mixed linear models, generalized linear mixed models, non-linear regression models, and discrete response regression models. Graphical techniques are demonstrated to identify unusual observations and recognize relationships. Discussions will focus on identifying the best models with linear, polynomial, and multiple linear regression techniques for data obtained from both observational and designed experiments. Fixed and/or mixed model approaches will be used for experiments with designs and treatment structures common to agricultural and horticultural experiments, such as blocked designs, and factorial and augmented factorial treatment structures. Analysis of covariance will be discussed in detail to include situations with homogeneous and nonhomogeneous slopes and factorial experiments involving repeated measures and/or additional indicator variables. Analysis of covariance will also be presented as an alternative to blocking. Practical applications of nonlinear and logistic regression methods will also be discussed.

**Prerequisite:** AGRO 808 or ENT 535 or STAT 500

HORT 590: Colloquium

1-3 Credits/Maximum of 3

Continuing seminars which consist of a series of individual lectures by faculty, students, or outside speakers.

HORT 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects including non-thesis research, supervised on an individual basis and which fall outside the scope of formal courses.

HORT 596A: **SPECIAL TOPICS**

1-9 Credits/Maximum of 9

HORT 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given on a topical or special interest subject which may be offered infrequently.

HORT 600: Thesis Research

1-15 Credits/Maximum of 999

No description.

HORT 601: Ph.D. Dissertation Full-Time

0 Credits/Maximum of 999

No description.

HORT 602: Supervised Experience in College Teaching

1-3 Credits/Maximum of 6

Provides an opportunity for horticulture graduate students to gain experience in teaching under the supervision of a faculty member.

HORT 603: Foreign Academic Experience

1-12 Credits/Maximum of 12

Foreign study and/or research constituting progress toward the degree at a foreign university.

HORT 610: Thesis Research Off Campus

1-15 Credits/Maximum of 999

No description.

HORT 611: Ph.D. Dissertation Part-Time

0 Credits/Maximum of 999

No description.