801.  Research Procedures in Plant Science  
Spring, 3(2-2)  
P: STT 422.  
Applications of epistemology and logic in plant science research.  
Classical research methods.  
Hypotheses.  
Analysis of laboratory, storage, greenhouse, and field experiments.

802.  Growth and Development of Horticultural Crops  
Spring of even-numbered years, 3(2-2)  
Physiology of grafting, juvenile flowering, fruiting, senescence, bud and seed dormancy, apical dominance of horticultural crops.

803.  Postharvest Physiology  
Spring of odd-numbered years, 3(2-2)  
Physiology, biochemistry, and molecular biology of maturation, ripening and senescence of harvested horticultural crops.

819.  Advanced Plant Breeding  
Fall, 3(3-0) Interdepartmental with Crop and Soil Sciences, and Forestry.  
P: CSS 450, STT 422.  
Genetic expectations resulting from breeding strategies with cross- and self-pollinated crop plants.  
Germline collections, mapping populations, and modifications of reproductive biology useful for crop improvement.

823.  Methods in Genetic Engineering of Plants  
Fall of even-numbered years, 4(0-8) Interdepartmental with Crop and Soil Sciences, and Forestry.  
Administered by Crop and Soil Sciences.  
Bacterial transformation.  
Plant transformation via Ti-plasmid, protoplast/PEG, and electroporation methods.  
Detection of foreign gene integration and expression.

827.  Techniques in Cytogenetics  
Fall of odd-numbered years, 1(0-3) Interdepartmental with Crop and Soil Sciences, and Forestry.  
Administered by Crop and Soil Sciences.  
Preparation of chromosomes from commercially important plants for cytogenetic analysis.

836.  Plant Evolution and the Origin of Crop Species  
Fall of even-numbered years, 3(3-0) Interdepartmental with Crop and Soil Sciences, and Forestry.  
P: CSS 359.  
Cultural and biological aspects of the evolution of domestic plants.  
Origin and diversity of cultivated plants.

853.  Plant Mineral Nutrition  
Fall of odd-numbered years, 3(3-0) Interdepartmental with Crop and Soil Sciences.  
Administered by Crop and Soil Sciences.  
B: BOT 201.  
Inorganic ion transport in plant cells and tissues.  
Physiological responses and adaptation to problem soils.  
Genetic diversity in nutrient uptake and use by plants.  
Physiological roles of elemental nutrients in crop growth.

862.  Environmental Plant Physiology  
Spring of odd-numbered years, 3(3-0) Interdepartmental with Botany and Plant Pathology.  
Administered by Botany and Plant Pathology.  
P: BOT 201 or BOT 414 or BOT 415.  
Interaction of plant and environment.  
Photobiology, thermophysiology, and plant-water relations.

890.  Independent Study  
Fall, Spring, Summer.  
1 to 4 credits.  
A student may earn a maximum of 6 credits in all enrollments for this course.  
R: Approval of department.  
Individual study of problems of special interest.

891A.  Selected Topics in Horticulture  
Fall, Spring, Summer.  
1 to 3 credits.  
A student may earn a maximum of 6 credits in all enrollments for this course.  
R: open only to graduate students in Horticulture.  
Approval of department.  
Selected topics in horticultural science of current interest and importance.

891B.  Selected Topics in Plant Breeding and Genetics  
Fall, Spring, Summer.  
1 to 2 credits.  
A student may earn a maximum of 6 credits in all enrollments for this course.  
Interdepartmental with Crop and Soil Sciences, and Forestry.  
R: open only to graduate students in Plant Breeding and Genetics or Genetics.  
Approval of department.  
Selected topics in plant breeding.

892.  Plant Breeding and Genetics Seminar  
Fall, Spring, Summer.  
1(1-0)  
A student may earn a maximum of 6 credits in all enrollments for this course.  
Interdepartmental with Crop and Soil Sciences, and Forestry.  
Experience in review, organization, oral presentation, and analysis of research.

894.  Horticulture Seminar  
Fall, Spring.  
1(1-0)  
Experience in review, organization, oral presentation and analysis of research.

898.  Master’s Research  
Fall, Spring, Summer.  
1 to 6 credits.  
A student may earn a maximum of 8 credits in all enrollments for this course.  
R: Approval of department.  
Master’s degree Plan B project.

899.  Master’s Thesis Research  
Fall, Spring, Summer.  
1 to 10 credits.  
A student may earn a maximum of 8 credits in all enrollments for this course.  
R: open only to graduate students in Horticulture.

900.  Advanced Forest Genetics  
Fall of odd-numbered years, 2(1-2) Interdepartmental with Forestry, and Crop and Soil Sciences.  
Administered by Forestry.  
P: HRT 819 or HRT 836.  
Applications of genetics, plant breeding, and biotechnology to the improvement, and preservation of diversity, of tree species.

911.  Quantitative Genetics in Plant Breeding  
Spring of even-numbered years, 3(0-3) Interdepartmental with Crop and Soil Sciences, Forestry.  
Administered by Crop and Soil Sciences.  
Theoretical genetic basis of plant breeding with emphasis on traits exhibiting continuous variation, classical and contemporary approaches to the study and manipulation of quantitative trait loci.

943.  Techniques of Analyzing Unbalanced Research Data  
Spring, 4(4-0) Interdepartmental with Animal Science, Forestry, Crop and Soil Sciences, and Fisheries and Wildlife.  
Administered by Animal Science.  
P: STT 464.  
R: open only to graduate students in the College of Agriculture and Natural Resources.  
Linear model techniques to analyze research data characterized by missing and unequal number of observations in classes.  
Simultaneous consideration of multiple factors.  
Estimable comparisons.  
Hypothesis testing.  
Computational strategies.  
Variance components.  
Breeding values.

999.  Doctoral Dissertation Research  
Fall, Spring, Summer.  
1 to 24 credits.  
A student may earn a maximum of 98 credits in all enrollments for this course.  
R: open only to Ph.D. students in Horticulture.

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HOTEL, RESTAURANT AND INSTITUTIONAL MANAGEMENT  
HRI

School of Hotel, Restaurant and Institutional Management
The Eli Broad College of Business and The Eli Broad Graduate School of Management

200.  Introduction to the Hospitality Industry  
Fall, 3(0-0)  
R: open only to freshmen and sophomores.  
Survey of all sectors, segments and disciplines of the hospitality and tourism industries.  
Topics include impact of travel and tourism, hospitality trends, and overview of accounting, marketing, and sales.

257.  Management of Lodging Facilities  
Spring, 3(0-0)  
P: HRI 200, one ISP course.  
R: open only to freshmen, sophomores and juniors.  
Operational departments and logical functions in the operation of various types of lodging properties.  
Planning and control of physical, mechanical, and electrical systems.

265.  Quality Food Management  
Fall, Spring, 3(3-0)  
P: HRI 200, one ISP course.  
R: open only to sophomores and juniors.  
Standards of microbiology, sanitation, nutrition, and other quality issues in food management.  
Chemical, health, and workplace standards.  
Management of product quality and costs.

302.  Hospitality Managerial Accounting  
Fall, Spring, 3(3-0)  
P: ACC 201; CPS 100 or CPS 130; HRI 200; STT 315 or concurrently.  
R: open only to juniors and seniors.  
Principles of managerial accounting applied to hospitality enterprises.  
Topics include financial statements, forecasting methods, internal control, and accounting ethics.

307.  Organizational Behavior in the Hospitality Industry  
Spring, 3(3-0)  
P: MI 300, MGT 362; HRI 237.  
R: open only to juniors and seniors.  
Human resource management and interpersonal skills in the hospitality industry.  
Focus on managing in a culturally diverse workplace.

357.  Hospitality Information Systems  
Fall, 3(3-0)  
P: HRI 237; CPS 100 or CPS 130.  
Technology for gathering, analyzing, storing and communicating information within the hospitality industry.

345.  Quantity Food Production Systems  
Fall, Spring, 3(1-4)  
P: HRI 285.  
R: open only to juniors and seniors.  
Organization of food and beverage operations.  
Production knowledge, especially purchasing, storing, preparing and production in food service operations.  
Menu development and recipe management.

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