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## Relevant Courses

As indicated by the following list, UC Davis offers a great number of upper-level undergraduate and graduate-level courses in a wide variety of departments that are relevant to students interested in plant breeding. While required courses will depend on which academic program you choose, each program also offers some degree of choice of electives. Through consultation with your academic advisors, you will be able to tailor your program to your specific interests.

ABT233	Pest Control Practices (3 units, Winter)
ANG204	Theory of Quantitative Genetics (3 units, Spring – offered in alternate years)
ANG208	Estimation of Genetic Parameters (3 units)
ANG212	Sequence Analysis in Molecular Genetics (2 units, Winter – offered in alternate years)
ARE100A	Intermediate Microeconomics: Theory of Production and Consumption (4 units, Fall/Winter/Spring)
ARE130	Agricultural Markets (4 units, Spring)
ARE138	International Commodity and Resource Markets (3 units, Winter)
BIS101	Genes and Gene Expression (4 units, Fall/Winter/Spring)
BIT150	Applied Bioinformatics (4 units, Fall)
ECL204	Population and Community Ecology (4 units, offered in alternate years)
	ECL207 Plant Population Biology (3 units, Winter)
ENH125	Greenhouse and Nursery Crop Production (5 units, Winter)
ENH145	Tree Improvement and Utility (3 units)
ENH150	Genetics and Plant Conservation: The Biodiversity Crisis (3 units, Winter)
ENT110	Arthropod Pest Management (5 units, Winter)
ENT135	Introduction to Biological Control (4 units, Spring)
ENT230	Advanced Biological Control (4 units, Fall – offered in alternate years)
EVE100	Introduction to Evolution (4 units, Fall/Winter/Spring)
EVE102	Population and Quantitative Genetics (4 units, Spring)
EVE117	Plant Ecology (4 units, Fall)
GGG201A	Advanced Genetic Analysis (5 units, Spring)
GGG201B	Genomics (5 units, Spring)
GGG201C	Molecular Biology (4 units, Spring)
GGG201D	Quantitative and Population Genetics (5 units, Winter)
GGG220	Genomics and Biotechnology of Plant Improvement (3 units, Winter)
HYD124	Plant-Water-Soil Relationships (4 units, Spring)
IAD170	Program Development for International Agriculture (4 units, Winter)
IAD202N	Analysis and Determinants of Farming Systems (4 units, Spring)

IPM201	Concepts and Systems of Plant Protection and Pest Management (4 units, Winter – offered in alternate years)
MCB160L	Principles of Genetics Laboratory (4 units, Fall/Winter/Spring)
MCB161	Molecular Genetics (3 units, Winter)
MCB163	Developmental Genetics (3 units, Winter)
MCB164	Advanced Eukaryotic Genetics (3 units, Spring)
MCB182	Principles of Genomics (3 units, Spring)
MCB262	Transgenic Expression Systems (3 units, offered in alternate years)
MCB263	Biotechnology Fundamentals and Application (2 units, Winter – offered in alternate years)
MCB282	Biotechnology Internship (7-12 units)
NEM110	Introduction to Nematology (2 units, Winter)
PBI201	Plant Senescence: Cellular and Molecular Aspects (4 units, Fall)
PBI202	Advanced Physiology of Cultivated Plants (2 units, Fall)
PBI208	Plant Hormones and Regulators (4 units, Winter – offered in alternate years)
PBI210	Plant Ecophysiology (3 units, Winter – offered in alternate years)
PBI212	Physiology of Herbicidal Action (3 units, Spring – offered in alternate years)
PBI219	Reproductive Biology of Flowering Plants (3 units, Fall – offered in alternate years)
PBI220	Plant Developmental Biology (4 units, offered in alternate years)
PBI223	Special Topics in Scientific Methods (2 units, Fall)
PLB105	Developmental Plant Anatomy (5 units, Fall)
PLB108	Systematics and Evolution of Angiosperm (5 units, Spring)
PLB111	Plant Physiology (3 units, Fall)
PLB112	Plant Growth and Development (3 units, Winter)
PLB113	Molecular and Cellular Biology of Plants (3 units, Spring)
PLB116	Plant Morphology and Evolution (5 units, Winter)
PLB119	Population Biology of Weeds (3 units, Spring)
PLB126	Plant Biochemistry (3 units, Fall)
PLB142	Ecology of Crop Systems (4 units, Winter)
PLB141	Principles and Methods of Ethnobotany (4 units, Winter – offered in alternate years)
PLB143	Evolution of Crop Plants (3 units, Spring)
PLB150	Plant Natural Product Chemistry (3 units, Fall)
PLB152	Plant Genetics (4 units, Spring)
PLB153	Plant Cell, Tissue, and Organ Culture (4 units, Winter – offered in alternate years)
PLB154	Introduction to Plant Breeding (4 units, Winter)
PLB157	Physiology of Environmental Stresses in Plants (4 units, Winter)
PLB158	Mineral Nutrition of Plants (4 units, Spring)
PLB160	Principles of Plant Biotechnology (3 units, Winter)
PLB161A	Plant Genetics and Biotechnology Laboratory (4 units, Fall)
PLB161B	Plant Genetics and Biotechnology Laboratory (4 units, Winter)
PLB171	Plant Propagation (4 units, Fall)
PLB172	Postharvest Physiology and Handling of Horticultural Commodities (3 units, Fall)
PLB172L	Postharvest Physiology and Handling Laboratory (2 units, Fall)
PLB173	Biological Applications in Fruit Tree Management (2 units, Winter)
PLB174	Biological Applications in Fruit Production (2 units, Spring)
PLB176	Introduction to Weed Science (3 units, Winter)
PLP120	Introduction to Plant Pathology (4 units, Fall/Spring)
PLP130	Fungal Biotechnology and Biochemistry (3 units, Winter)

PLP123	Plant-Virus-Vector Interaction (3 units, Fall)
PLP209	Principles of Plant Disease Control (3 units, Winter – offered in alternate years)
PLS110A	Principles of Agronomic Crop Production in Temperate and Tropical Systems (3 units)
PLS110B	Management of Agronomic Crops in Temperate and Tropical Systems (3 units, Spring)
PLS110C	Crop Management Systems for Vegetable Production (4 units, Fall)
PLS118	Seed Production and Quality (4 units, Spring – offered in alternate years)
PLS120	Applied Statistics in Agricultural Science (4 units, Fall)
PLS150	Cropping Systems of the World (4 units, Winter)
PLS170A	Fruit and Nut Cropping Systems (2 units, Fall)
PLS170B	Fruit and Nut Cropping Systems (2 units, Spring)
PLS222	Advanced Plant Breeding (4 units, Spring)
PLS205	Experimental Design and Analysis (4 units, Winter)
PLS206	Multivariate Systems and Modeling (4 units, Spring)
PLS212	Postharvest Biology and Biotechnology of Fruits and Nuts (3 units, Spring – offered in alternate years)
PLS220	Genomics and Biotechnology of Plant Improvement (3 units)
PLS221	Genomics and Breeding of Vegetable Crops (3 units, Spring)
PLS291	Seminar in Plant Breeding and the Evolution of Cultivated Plants
SSC208	Soil-Plant Interrelationships (3 units, Winter – offered in alternate years)
VEN110	Grapevine Growth and Physiology (3 units, Winter)
VEN118	Grapevine Pests, Diseases and Disorders (3 units, Fall)