

PLANT BREEDING AND GENETICS GRADUATE OPTION

This option is offered within the following major(s):

- Crop Science - College of Agricultural Sciences (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/crop-soil-science/crop-science-ms-phd-mais>)
- Horticulture - College of Agricultural Sciences (<http://catalog.oregonstate.edu/college-departments/agricultural-sciences/horticulture/horticulture-ms-phd-mais>)

The Plant Breeding and Genetics (PBG) graduate option at Oregon State University embodies the Land Grant mission of integrated research, teaching and extension in the context of cultivar development and fundamental genetics. Plant breeding is a collaborative discipline spanning everything from classical field approaches to gene manipulation at the molecular level. Breeders regularly cooperate with pathologists, entomologists, soil scientists, physiologists, food scientists, genomicists, molecular biologists and experts in other fields.

Students in the Plant Breeding and Genetics graduate option will learn an interdisciplinary approach to applied plant breeding by taking courses across a broad spectrum of disciplines. The option may be tailored to meet students' career goals including further graduate study, as well as direct entry into public or private sector breeding programs. After completing the degree, students will have the fundamental knowledge of plant breeding that may be applied to a range of crops including annual and perennial horticultural crops, agronomic food and feed crops, and forestry products.

Code	Title	Hours
Select 12 credits of the following:		12
BOT 575	COMPARATIVE GENOMICS	
CROP 590	EXPERIMENTAL DESIGN IN AGRICULTURE	
PBG 507	SEMINAR	
PBG 519	CURRENT TOPICS IN PLANT BREEDING AND GENETICS	
	or HORT 519 CURRENT TOPICS IN PLANT BREEDING AND GENETICS	
PBG 530	PLANT GENETICS	
PBG 541	PLANT TISSUE CULTURE	
	or MCB 541 PLANT TISSUE CULTURE	
PBG 550	PLANT BREEDING	
PBG 620	DNA FINGERPRINTING	
	or MCB 620 DNA FINGERPRINTING	
PBG 621	GENETIC MAPPING	
	or MCB 621 GENETIC MAPPING	
PBG 622	MAPPING QUANTITATIVE TRAIT LOCI	
	or MCB 622 MAPPING QUANTITATIVE TRAIT LOCI	
PBG 650	ADVANCED PLANT BREEDING AND QUANTITATIVE GENETICS	
Total Hours		12

Option Code: 1210