

# Certificate in Crop Breeding and Biotechnology

This is one of two 15-credit, post-baccalaureate graduate certificates that provide training to students and working professionals. This certificate and the Certificate in Plant Disease may be paired for the pre-existing professional master's in plant science.

## CERTIFICATE IN CROP BREEDING AND BIOTECHNOLOGY

### Requirements

15 credits

Students cannot use more than 4 credits of 400-level courses on a Certificate Program of Study.

### Prerequisites

- BS in Crop Science, Plant Sciences, Plant Biotechnology, or related degree or:
- Junior status and coursework including coursework in:

An introductory plant pathology course

Botany or an introductory plant biology course

A soil science course

A statistics course

### Coursework:

#### Physiology – (3 cr)

- BIOC 460 / 5XX Plant Metabolism, 3 cr. prereq BIOC 220 or BCH 380. (3 credits)

#### Breeding – take two (6 cr)

- AGSC 441/5XX Plant Breeding and Genetics – spring odd years, 3 credits. prereq BIOB 375 or BIOB 377
- BIOB 430/5XX Plant Biotechnology – spring even years, 3 credits. prereq BCH 380 or BIOB 375 or BIOB 377
- PSPP 4XX/541 Advanced Genetics – spring odd years, 3 credits. .prereq BIOB 375 or BIOB 377.

#### Genomics – take one (3 cr)

- BIOB 476R Gene Construction (not a PSPP class) – 4 credits. spring semesters prereqs BCH 380 & BCH 441
- BIOH 465R Gene Expression Lab (not a PSPP class) – 3 cr. prereqs BCH 380 or BCH 441
- PSPP 642 Structural and Functional Genomics (no instructor currently) 3 cr. – alternate odd falls

#### Professional Development (3 cr)

- PSPP 594 – Seminar (1 credit).
- PSPP 575 – Professional Paper 2 cr.