

College of Agriculture and Life Sciences – School of Plant and Environmental Sciences
Bachelor of Science: Crop and Soil Environmental Sciences – Crop Genetics & Breeding Option
For students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021

Pathways to General Education (44-47 credits)

1. Discourse

- ___ (3, foundational) ENGL 1105: First-Year Writing – F, S
- ___ (3, foundational) ENGL 1106: First-Year Writing – F, S, SI, SII
- ___ (3, advanced/applied) *ENGL 3764: Technical Writing – F, S, W, SI, SII

2. Critical Thinking in the Humanities

- ___ (3) _____ - F, S, W, SI, SII
- ___ (3) _____ - F, S, W, SI, SII

3. Reasoning in the Social Sciences

- ___ (3) AAEC 1005: Econ Food Fiber Sys or ECON 2005: Principles of Economics – F, S
- ___ (3) AAEC 1006: Econ Food Fiber Sys or ECON 2006: Principles of Economics – F, S

4. Reasoning in the Natural Sciences

- ___ (3) *CHEM 1035: General Chemistry – F, S, SI, SII
- ___ (1) *CHEM 1045: General Chemistry Laboratory – F, S, SI, SII
- ___ (3) *CHEM 1036: General Chemistry – F, S, SI, SII
- ___ (1) *CHEM 1046: General Chemistry Laboratory – S, SI, SII

5. Quantitative and Computational Thinking

- ___ (3, foundational) – MATH 1025: Elementary Calculus – F, S, SI, SII
- ___ (3, foundational) _____ - F, S, W, SI, SII
- ___ (3, advanced) _____ - F, S, W, SI, SII

6. Critique and Practice in Design and the Arts

- ___ (3, design) _____ - F, S, W, SI, SII
- ___ (3, arts) _____ - F, S, W, SI, SII

7. Critical Analysis of Identity and Equity in the United States

- (may be double-counted with another core concept)
- ___ (3) _____ - F, S, W, SI, SII

Free Electives (number needed to complete 120 credits)

- ___ () _____
- ___ () _____
- ___ () _____
- ___ () _____

Common Degree Core Requirements (27 credits)

- ___ (1) ALS 1234: CALS First Year Seminar – F
- ___ (3) ALCE 3634: Comm Ag & Life in Speaking – F, S,
 or COMM 2004: Public Speaking – F, S, SI, SII
- ___ (3) BIOL 1105: Principles of Biology – F, W, SI
- ___ (3) CSES 2444: Agronomic Crops - F
- ___ (3) *CSES/ENSC 3114 or GEOS 3614: Soils – F
- ___ (1) CSES/ENSC 3124 or GEOS 3624: Soils Laboratory - F
- ___ (3) CSES/HORT 3444: World Crops & Systems – S
- ___ (3) *CSES 4214: Soil Fertility and Management - F
- ___ (3) ENSC 1015: Found Environmental Sci- F
 or ENSC 1016: Found Environmental Sci - S
- ___ (4) *PPWS 4104: Plant Pathology - F

Crop Genetics & Breeding Option Requirements (33 credits)

- ___ (3) BIOL 1106: Principles of Biology – S, W, SII
- ___ (3) *BIOL 2004: Genetics – F, S, SII
- ___ (3) *BIOL 2134: Cell Function Differentiation – F, S, SI
- ___ (3) *BIOL/HORT 2304: Plant Biology – F, S
- ___ (1) *BIOL 3104: Cell Molecular Biol Laboratory – F, S
- ___ (3) *BIOL 3774: Molecular Biology – F
- ___ (3) *BCHM 3114: Biochem for Biotech – F
- ___ (3) *CHEM 2535: Organic Chemistry – F, S, SI
- ___ (1) *CHEM 2545: Organic Chemistry Laboratory – F, S, SI
- ___ (3) *CHEM 2536: Organic Chemistry - F, S
- ___ (1) *CHEM 2546: Organic Chemistry Laboratory - S
- ___ (3) CSES 4144: Plant Breeding and Genetics – S
- ___ (3) CSES 4344: Crop Physiology and Ecology – S

Restricted Electives (choose 6 credits from list below)

- ___ (3) *BIOL/ALS 2404: Biotech in Global Soc - S
- ___ (3) *CSES/ENSC 3644: Plant for Env Rest – S
- ___ (3) CSES 4354: Advanced Agronomic Crops - S
- ___ (3) *ENT/PPWS 4264: Pesticide Usage – S

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NOTE:

Total Hours Required: 120

*Some courses listed on the checksheet may have prerequisites; please consult the University Course Catalog or check with your advisor.

F (fall), S (spring), W (winter), SI (summer I), and SII (summer II) let students know the term the course is offered – when a course is offered is subject to change so always check the course catalog.

By the end of the academic year in which the student has attempted 60 credits (including transfer, advanced placement, advanced standing and credit by examination), "satisfactory progress" toward a B.S. degree in CSES will include:

1. Declaring an option within the CSS major
2. Passing the following:
 - At least 24 credits that apply to the Pathways of General Education
 - CHEM 1035 and 1036
 - ALS 1234, CSES/ENSC 3114 and CSES/ENSC 3124
 - 6 credits of Math

GPA Requirements:

- Overall GPA: 2.0 (each semester in order to be in good academic standing)
- In-major GPA: 2.0 (by the time the student graduates)
 - Includes classes in: CSES, ENSC, ENT, HORT, and PPWS