

**PLANT SCIENCE B.S.**  
**Fall 2016**

**A. Major Courses (44-46 credits)**

- \_\_\_ AGRO 1660W First-Year Colloquium/Experience in Agroecosystems Analysis (2 cr, F/S)
- \_\_\_ FDSY 2101 Plant Production Systems (3.0 cr, S)
- \_\_\_ BIOL 1009 General Biology (4.0 cr, F/S)<sup>B</sup>
- \_\_\_ CHEM 1061 Chemical Principles I (3.0 cr, F/S)<sup>P</sup>
- \_\_\_ CHEM 1065 Chemical Principles I Lab (1.0 cr, F/S)<sup>P</sup>
- \_\_\_ BIOL 2022 General Botany (3.0 cr, F/S)  
or HORT 1001 Plant Propagation (4 cr, F/S)
- \_\_\_ MATH 1142 Short Calculus (4.0 cr, F/S)<sup>M</sup>  
or Math 1031, 1051, 1271 or 1241
- \_\_\_ HORT 1015 Woody and Herbaceous Plants (4.0 cr, F)
- \_\_\_ HORT 2100 Agricultural Biochemistry (3.0 cr, F)  
or BioC 3021 BioChemistry (3 cr, F/S) *prereq Chem 2301, Biol 1009*
- \_\_\_ SOIL 2125 Basic Soil Science (4.0 cr, F/S)<sup>P,E</sup>
- \_\_\_ HORT 4401 Plant Genetics & Breeding (4 cr, S)  
or AGRO 3660 Plant Genetic Resources: Identification, Conservation, and Utilization (3.0 cr, S)  
or HORT 4071W Applications of Biotechnology to Plant Improvement (4 cr, F)
- \_\_\_ CFAN 2333 Insects, Microbes and Plants (3 cr, F)<sup>TS</sup>
- \_\_\_ HORT 4096W Prof. Exp. Program: Internship (2 cr, F/S)
- \_\_\_ HORT 3005W : Environmental Effects on Horticultural Crops (4.0 cr, S)

**B. Communications (4 credits)**

- \_\_\_ Writ 1301 University Writing (4 cr, F/S)<sup>F</sup>

**C. Interdisciplinary Learning (3 crs) select 1 course**

- \_\_\_ Agro 3203W Env, Food Prod & the Citizen<sup>GP</sup> (3cr, S)  
or Agro 3305 Agroecosystems of the world<sup>GP</sup> (3 cr, F)  
or ApEc 3202 An Introduction to the Food System: Analysis, Management and Design (3cr, S)  
or Agro 4103 World Food Problems<sup>GP</sup>(3 cr, S)jr or sr  
or CFAN 1501 Biotechnology, Pple & the Env<sup>TS</sup>(3cr,S)  
or ESPM 1011 Issues in the Environment<sup>Env</sup> (3 cr, F/S)  
or ESPM 3575 Wetlands (3 cr, S)  
or FScN 1102 Food:Safety, Risks & Tech<sup>CIV</sup> (3 cr, F/S)  
or FW 2001W Intro to Fish, Wildlife & Con Bio (3cr, F)  
or Hort 4850 Pollinator Protection in Mgd Land (3 cr, F)  
or PIPa 2003 Plague, Famine, and Beer (3 cr, S)<sup>HIST</sup>

**D. PROGRAM OF STUDY**

Course Group Description: In consultation with their faculty adviser, students develop a program of study consisting of at least 25 credits, with a minimum of 15 credits at the 3xxx-level or above. Of these 25 credits within the Program of Study, students need to take a minimum of 12 credits of Agro, Ent, Hort or PIPa designators. In addition, all programs of study must include one writing intensive course. The following are course suggestions for various areas of study:

**Plant Breeding**

- Chem 1062: Chemistry Principles II (3 cr, F/S)
- Chem 1066 Chemistry Principles II lab (1 cr, F/S)
- Chem 2301 Organic Chemistry I (3 cr, F/S)
- Agro 3660 Plant Genetic Resources: Identification, Conservation, & Utilization (3 cr, S)  
(assuming took Hort 4401 for core)

- Hort 4071W Applications of Biotechnology to Plant Improvement (4 cr, F) (assuming took Hort 4401 for core)
- Stat 3011 Introduction to Statistical Analysis (4 cr, F/S)<sup>M</sup>
- Agro 4505 Biol., Ecology & Mgt of Invasive Plants (3cr, S)
- Hort 5007 Advanced Plant Propagation (3 cr, S)
- AGRO 4097 - Undergraduate Research Thesis (1 cr, F)

**Agroecology**

- Chem 1062: Chemistry Principles II (3 cr, F/S)
- Chem 1066 Chemistry Principles II lab (1 cr, F/S)
- Chem 2301 Organic Chemistry I (3 cr, F/S)
- Agro 4505 Biol., Ecology & Mgt of Invasive Plants (3cr, S)
- Agro 3203W Environment, Global Food Production, and the Citizen (3 cr, S)<sup>GP,WI</sup> (*if not used for IL course*)
- Ent 3925 Insects, Aquatic Habitats, and Pollution (3 cr, F)
- ESPM 5071 Ecological Restoration (4 cr, F)
- PIPa 2001 Introductory Plant Pathology (3 cr, S)
- ESPM 3108 Ecology of Managed Systems (3 cr, F)

**Production**

- Hort 3131 Student Organic Farm Planning, Growing & Marketing (3cr, S)
- Agro 3203W Environment, Global Food Production, and the Citizen (3 cr, S)<sup>GP,WI</sup> (*if not used for IL course*)
- Agro 4505 Biol., Ecology & Mgt of Invasive Plants (3cr, S)
- Agro 4888 Issues in Sustainable Agriculture (2cr, F)
- Ent 1005 Insect Biology (4 cr, F)<sup>B</sup>
- Hort 1014 Edible Landscape (3 cr, S)
- PIPa 2001 Introductory Plant Pathology (3 cr, S)
- Agro 4605 Management Strategies for Crop Production (3cr, S)
- Soil 3416 Plant Nutrients and the Environment (3 cr, S)

**Nursery & Floriculture**

- Hort 4015 (could take 2) Advanced Woody & Herbaceous Plant Topics (1 cr, F)
- Hort 4141W Scheduling Crops for Protected Envts(4 cr, F)
- Hort 5051 Plant Production II (4 cr, S)
- Hort 5031 Organic Viticulture & Fruit Production (3cr, F odd yrs )
- Ent 4021 Honey Bees and Insect Societies(3 cr, odd Falls)
- FNRM 3501 Arboriculture: Selection & Maintenance of Trees (3 cr, S)
- PIPa 2001 Introductory Plant Pathology (3 cr, S)
- Soil 3416 Plant Nutrients and the Environment (3 cr, S)
- Hort 5023 Public Garden Mgmt (2 cr, S, alt yrs)

**Turfgrass Science**

- Hort 4061W Turfgrass Management (3 cr, F)
- Hort 4062 Turfgrass Weed and Disease Science (3 cr, F)
- Hort 4063 Turfgrass Science (3 cr, S)
- PIPa 2001 Introductory Plant Pathology (3 cr, S)
- Ent 4015 Ornamentals and Turf Entomology (3 cr, S)
- Agro 4505 Biol, Ecology & Mgt of Invasive Plants(3 cr, S)
- Soil 3416 Plant Nutrients and the Environment (3 cr, S)
- Hort 3480 Topics in Turfgrass (1 – 4 cr)
- Hort 4141W Scheduling Crops for Protected Envts(4 cr, F)

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### Sustainable Plant Health

ENT 1005 Insect Biology (4cr, F)  
PIPa 2001 Intro Plant Pathology (3cr, S)  
    or PIPa 5480 Principles of Plant Pathology (3cr, F)  
PIPa 3003 Diseases of Forest and Shade Trees (3cr, S)  
Soil 3416 Plant Nutrients in the Environment (3 cr, S)  
    or ESPM 3612W Soil and Environmental Biology (3cr, F)  
Agro 4505 Biol., Ecology & Mgmt of Invasive Plants (3cr, S)  
Hort 4850 Pollinator Protection in Mngd Landscapes (3cr, F)  
Ent 5341 Biological Control of Insects & Weeds (3cr, odd S)  
PIPa 5660 Plant Disease Resistance and Applications (3cr, S)

\* Note: a number of these courses may require additional prerequisites not met through the major. Check the course catalog or consult with your faculty advisor to plan accordingly.

### E. Liberal Education Requirements and Themes (21 credits)

Students must complete seven core courses and four (of five) theme courses. Some courses may fulfill both a core and theme requirement.

*Completed through required coursework:*

F - Freshman Composition Requirement  
 M - Mathematical Thinking Core  
 B - Biological Science w/Lab Core  
 P - Physical Science w/Lab Core  
 E - Environment Theme  
 TS- Technology and Society theme (3 cr)

*Possibly completed through required coursework:*

\_\_\_ GP – Global Perspectives Theme (3 cr) (*completed if taken Agro 4103*)

*Most likely NOT completed through required coursework:*

\_\_\_ SS – Social Science Core (3 cr)  
\_\_\_ L – Literature Core (3 cr)  
\_\_\_ AH – Arts/ Humanities Core (3 cr)  
\_\_\_ Hist – Historical Perspectives Core (3 cr)  
\_\_\_ DSJ – Diversity and Social Justice in the US Theme (3 cr)  
\_\_\_ CIV – Civic Life and Ethics Theme (3 cr)

### F. Writing Intensive Requirements

All four of your WI courses must be a part of your Major Courses (Hort 3005W, HORT 4096W) and Program of Study.

\_\_\_ completed with Agro 1660W  
\_\_\_ completed with Hort 3005W  
\_\_\_ completed with Hort 4096W  
\_\_\_ Program of Study course

### G. Free Electives (as needed to reach 120 credits)

Students are encouraged to make choices that strengthen their expertise in an area and/or provide comparative understanding from another culture or discipline. To this end, students should strongly consider using free electives to complete a University minor, study abroad experience, or a student designed content area. Students construct these expertise areas with the help of their faculty advisors.