

**EXECUTIVE COMMITTEE
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCE**

**REPORT TO RIVERSIDE DIVISION
MAY 23, 2017**

To be adopted:

Proposed changes to the undergraduate major requirements in Plant Biology.

PRESENT:

Major Requirements

The major requirements for the B.S. and B.A. degrees in Plant Biology are as follows:

1. Life Sciences core requirements (69-73 units)

Students must complete all required courses with a grade of "C-" or better and with a cumulative GPA in the core courses of at least 2.0. Grades of "D" or "F" in two core courses, either separate courses or repetitions of the same course, are grounds for discontinuation from the major.

- a) BIOL 005A, BIOL 05LA, BIOL 005B, BIOL 005C
- b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 12A, CHEM 12B, CHEM 12C

- c) MATH 009A, MATH 009B (MATH 009C recommended)

- d) PHYS 002A, PHYS 002B, PHYS 002C, PHYS 02LA, PHYS 02LB, PHYS 02LC

- e) STAT 100A

- f) BCH 100 or BCH 110A (BCH 110A is strongly recommended)

2. Upper-division requirements (36 units for the B.S., 31 units for the B.A.)

A GPA of at least 2.0 in upper-division courses taken in the field of the major is a graduation requirement. A student is subject to discontinuation from the major whenever the GPA in upper-division course work is below 2.0. Students finding themselves in this circumstance must meet with an advisor.

PROPOSED:

Major Requirements

The major requirements for the B.S. and B.A. degrees in Plant Biology are as follows:

1. Life Sciences core requirements (69-73 units)

Students must complete all required courses with a grade of "C-" or better and with a cumulative GPA in the core courses of at least 2.0. Grades of "D" or "F" in two core courses, either separate courses or repetitions of the same course, are grounds for discontinuation from the major.

- a) BIOL 005A, BIOL 05LA or BIOL 020, BIOL 005B, BIOL 005C
- b) CHEM 001A, CHEM 001B, CHEM 001C, CHEM 01LA, CHEM 01LB, CHEM 01LC, CHEM 008A and CHEM 08LA or CHEM 008HA and CHEM 008HLA or CHEM 12A, CHEM 008B and CHEM08LB or CHEM 008HB and CHEM 008HLB or CHEM 12B, CHEM 008C and CHEM 08LC or CHEM 008HC and CHEM 008HLC or CHEM 12C
- c) MATH 007A or MATH 009A, MATH 007B or MATH 009B (MATH 009C recommended)
- d) No Change
- e) No Change
- f) No Change

2. No Change

- a) BIOL 102
- b) BPSC 104/BIOL 104
- c) BIOL 132/BPSC 132, BIOL 143/BPSC 143, BPSC 133
- d) **For the B.S. only:** Two (2) units of BPSC 95H, BPSC 197, BPSC ~~198I~~, or BPSC 199
- e) BPSC 193 with a grade of C- or better
- f) For the B.S. At least 11 additional units from one of the four areas of specialization (consult with a faculty advisor). Students may apply a maximum of 6 units of BPSC 190 and/or BPSC 195H and/or BPSC 197 and/or BPSC ~~198I~~ and/or BPSC 199.

For the B.A. At least 8 additional units from one of the four areas of specialization (consult with a faculty advisor).

Note Students planning a B.A. degree should schedule the required language courses in place of a series of electives.

Areas of Specialization

Individual student career goals may be achieved by selecting an area of specialization within the diverse disciplines of botany and plant sciences. Adjustments within these programs can be made to accommodate students' interests. Students must consult with a faculty advisor to clarify educational goals and to plan a program of study.

1. Plant Cellular, Molecular, and Developmental Biology
 - a) BPSC 135
 - b) Additional units from the following to meet either the B.S. or B.A. requirement: BCH 102, BCH 110B, BCH 110C or BIOL 107A, BCH 153/BIOL 153/BPSC 153, BCH 162, BCH 183/BPSC 183, BIOL 107B, BIOL 113, BIOL 114, BIOL 121/ MCBL 121, BIOL 121L/MCBL 121L, BIOL 123/MCBL 123/PLPA 123, BIOL 155/ BPSC 155, BIOL 168, BPSC 138/BIOL 138, BPSC 185, CBNS 101, CBNS 108
2. Plant Genetics, Breeding, and Biotechnology
 - a) BPSC 150
 - b) Additional units from the following to meet either the B.S. or B.A. requirement: BCH 153/BIOL 153/BPSC 153, BIOL 105, BIOL 107A, BIOL 107B, BIOL 108, BIOL 119,

- a) No Change
- b) No Change
- c) No Change

- d) **For the B.S. only:** Two (2) units of BPSC 95H, BPSC 197, BPSC 198I, or BPSC 199
- e) No Change
- f) For the B.S. At least 11 additional units from one of the four areas of specialization (consult with a faculty advisor). Students may apply a maximum of 6 units of BPSC 190 and/or BPSC 195H and/or BPSC 197 and/or BPSC 198I and/or BPSC 199.

No Change

No Change

Areas of Specialization

No Change

1. Plant Cellular, Molecular, and Developmental Biology
 - a) No Change
 - b) No Change
2. Plant Genetics, Breeding, and Biotechnology
 - a) No Change
 - b) No Change

BIOL 148/BPSC 148, BIOL 155/ BPSC 155,
BPSC 135, BPSC 158, BPSC 185, CBNS
108, STAT 100B

3. Ecology, Evolution, and Systematics

- a) BPSC 146
- b) Additional units from the following to meet either the B.S. or B.A. requirement: ANTH 170/BPSC 170, BIOL 105, BIOL 108, BIOL 112/BPSC 112/ENTM 112, BIOL 116, BIOL 116L, BIOL 138/BPSC 138, BIOL 165/BPSC 165, BPSC 134/ ENSC 134, BPSC 158, BPSC 166, BPSC 185, ENSC 100, GEO 151, GEO 153, GEO 169

4. Plant Pathology, Nematology, and Pest Management

- a) BIOL 120/MCBL 120/PLPA 120
- b) Additional units from the following to meet either the B.S. or B.A. requirement: BCH 183/BPSC 183, BIOL 121/MCBL 121, BIOL 121L/MCBL 121L, BIOL 124/ MCBL 124, BPSC 146, BPSC 150, BPSC 158, BPSC 166, ENSC 134/BPSC 134, ENTM 100/BIOL 100, ENTM 109, ENTM 124, ENTM 127/BIOL 127, ENTM 129, ENTM 129L, ENSC 100, ENSC 120/NEM 120, NEM 159/BIOL 159, PLPA 120L/ BIOL 120L/MCBL 120L, PLPA 123/BIOL 123/MCBL 123, PLPA 134/BIOL 134, PLPA 134L/BIOL 134L, ENSC 104

5. Individualized specialization

For students who wish to pursue ~~crossdisciplinary~~ education in plant biology. Course selection can be individualized, but needs to be approved by faculty advisor.

3. Ecology, Evolution, and Systematics

- a) No Change
- b) No Change

4. Plant Pathology, Nematology, and Pest Management

- a) No Change
- b) No Change

5. Individualized specialization

For students who wish to pursue cross-disciplinary education in plant biology. Course selection can be individualized, but needs to be approved by faculty advisor.

Justification:

Math 007A/B is the new Calculus for Life Sciences course that runs parallel to Math 9A/B (and has the same placement criteria as well as prerequisites). MATH 007A/B will be considered equivalent in terms of program requirements and in the progression of the first-year calculus sequence. The content of Math 007A/B significantly overlaps with Math 009A/B; credit is only awarded for either Math 007A or Math 009A, and credit is only awarded for either Math 007B or Math 009B.

The Chemistry Department is renumbering the 012 series into the 008 series.

Approvals:

Approved by the faculty of the Department of Botany and Plant Sciences:

Approved by the Executive Committee of

November 22, 2016

the College of Natural and Agricultural Sciences:
Approved by the Committee on Educational Policy:

December 16, 2016
May 3, 2017