## Genetics & Agronomy (Plant Breeding & Biotechnology option) –
### Catalog 2012-2013  Degree: BS, Genetics & Agronomy College of Agriculture & Life Sciences

### I. Communications (13 credits)
- ENGL 150 (3) & ENGL 250 (3)
- SP COM 212 (3) or AGEDS 311 (3)
- One of ENGL 302, 309 or 314 (3)
- LIB 160 (1)

### II. Mathematical Sciences (15-16 credits)
- STAT 101(4) or STAT 104 (3)
- MATH 165 (4) or MATH 181 (4)
- MATH 166 (4) or MATH 182 (4)
- STAT 401 (4)

### III. Physical and Chemical Sciences (33-34 credits)
**General Chemistry (9 credits)**
- CHEM 177 (4) & CHEM 177L (1)
- CHEM 178 (3) & CHEM 178L (1)

**Organic Chemistry (8 credits)**
- CHEM 331 (3) & CHEM 331L (1)
- CHEM 332 (3) & CHEM 332L (1)

**Biochemistry (6 - 7 credits)**
- BBMB 404 (3) or BBMB 420 (3)
- BBMB 405 (3) (not with 420) or BBMB 411 (3) or CHEM 211 & 211L (4) or CHEM 325 (3)

**Physics (10 credits)**
- PHYS 111 (5) or PHYS 221 (5)
- PHYS 112 (5) or PHYS 222 (5)

### IV. Personal Development, Human Relations, and Global Awareness (12-15 credits)
**College Requirements:**
- Three credits in Humanities
- ECON 101 (3)
- Three credits in Ethics, e.g. AGRON 342

**University Requirements:**
- Three credits International Perspectives*
- Three credits US Diversity*

* These may dual count for college requirements

### V. Biological Sciences Core (18.5 -19 credits)
- GEN 110 (1) fall only or AGRON 110 (0.5)
- BIOL 211(3) & BIOL 211L (1)
- BIOL 212 (3) & BIOL 212L (1)
- GEN/BIO 313 (3) & GEN/BIO 313L (1)
- BIOL 314 (3)
- BIOL 315 (3)

### VI. Genetics Core (13 credits)
- GEN 409 (3) fall only
- GEN 410 (3) spring only
- GEN 462 (3) fall only or EEOB 563 (3) spring
- GEN 491 (1) OR AGRON 410 (1)
- MICRO 302 (3)

### VII. Agronomy Core (21.5 -23 credits)
- AGRON 105 (R)
- AGRON 110 (0.5) or GEN 110 (1)
- AGRON 114 (3)
- AGRON 154 (3)
- GEOL 100 (3)
- AGRON 206 (3)
- AGRON 210 (1)
- AGRON 310 (R) OR 311 (1)
- AGRON 316 (3)
- AGRON 354 & 354L (4)
- AGRON 410 (1) or GEN 491 (1)
- Ag Issues Choice (3), e.g. AGRON 342

### VIII. Plant Breeding & Biotechnology (12-13 credits)
- AGRON 421 (3) fall only
- GEN 444 (3)
- AGRON 392 (3)
- AGRON 212 & L (4) or 338 (3) fall only

### IX. Free Electives (None are required.)
This list includes maximum overlap between the two programs. Minimum credits total to 138; more may be required depending on your choice of courses.

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For specific advising, please see Dr. Lois Girton (Genetics) lgirton@iastate.edu, 294-1606 and Dr. Mary Wiedenhoeft (Agronomy) mwiedenh@iastate.edu, 294-3274. July 2012 (LG/MW)