Seed Science

Secondary Major
Administered by the Departments of Agricultural and Biosystems Engineering, Agronomy, Horticulture, and Plant Pathology. Must be taken as a secondary major in conjunction with a primary major. The seed science program is designed for students with career interests in one or more aspects of the seed industry. Areas of study focus on seeds including production, conditioning, pathology, physiology, quality control, marketing, and seed plant designs.

Curriculum in Seed Science (Secondary Major)
Total Degree Requirement: 128 cr.

Complete Communication and Library requirements of primary major and 3 cr. from the following:
- ENGL 302 Business Communication
- ENGL 309 Proposal and Report Writing
- ENGL 314 Technical Communication
- SP CM 312 Business and Professional Speaking

Biological Sciences: 7 cr.
- BIOL 211 Principles of Biology I
  & 211L and Principles of Biology Laboratory I
  or BIOL 212 Principles of Biology II
  & 212L and Principles of Biology Laboratory II
- BIOL 313 Principles of Genetics
  or AGRON 320 Genetics, Agriculture and Biotechnology

Physical Sciences: 8-9 cr.
- CHEM 163 College Chemistry
  & 163L and Laboratory in College Chemistry
  or CHEM 177 General Chemistry I
  & 177L and Laboratory in General Chemistry I
One of the following:
- AGRON 259 Organic Compounds in Plants and Soils
- BBMB 221 Structure and Reactions in Biochemical Processes
- CHEM 231 Elementary Organic Chemistry
  & 231L and Laboratory in Elementary Organic Chemistry

Mathematical Sciences 6 cr.
- MATH 140 College Algebra
  or MATH 150 Discrete Mathematics for Business and Social Sciences

Statistics course

Agricultural Sciences: 28-29 cr.
- AGRON 181 Introduction to Crop Science
  or HORT 221 Principles of Horticulture Science
- AGRON 182 Introduction to Soil Science
- AGRON 206 Introduction to Weather and Climate
- AGRON 217 Weed Identification
  or AGRON 330 Crop and Seed Identification Laboratory
- AGRON 281 Crop Physiology
- AGRON 316 Crop Structure-Function Relationships
  or HORT 321 Horticulture Physiology
- AGRON 354 Soils and Plant Growth
9 credits from AGRON, HORT, or TSM (6 credits at 300-400 level)

Economics and Business: 9 cr.
- ECON 101 Principles of Microeconomics
Six credits from the following:
- ACCT 284 Financial Accounting
- ECON 102 Principles of Macroeconomics
- ECON 230 Farm Business Management
- ECON 234 Small Business Management
- ECON 235 Introduction to Agricultural Markets
- ECON 236 Agricultural Selling
- ECON 334 Entrepreneurship in Agriculture
- MGMT 370 Management of Organizations
- MKT 340 Principles of Marketing

Seed Science: 16 cr.
- AGRON 317 Principles of Weed Science
- AGRON 338 Seed Science and Technology
- AGRON 421 Introduction to Plant Breeding
- ENT 376 Fundamentals of Entomology and Pest Management
- PL P 408 Principles of Plant Pathology
One of the following:
- AGRON 311 Professional Internship in Agronomy (seed related)
- AGRON 491 Seed Science Internship Experience
- HORT 391 Horticultural Management Experience

Humanities: 3 CR.
3 cr. from approved humanities list: [http://www.cals.iastate.edu/student-services/humanities](http://www.cals.iastate.edu/student-services/humanities)
Social Sciences: 3 CR.
3 cr. from approved social sciences list: http://www.cals.iastate.edu/student-services/social-sciences/

Ethics: 3 CR.
3 cr. from approved ethics list: http://www.cals.iastate.edu/student-services/ethics/

Remaining credits (student choice).
Because seed science is a secondary major, the courses taken by the student during the first year will vary, depending on the primary major (see typical program for the primary major).