

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	3
ENGL 309	Proposal and Report Writing	3
ENGL 314	Technical Communication	3
SP CM 312	Business and Professional Speaking	3

Biological Sciences: 7 cr.

BIOL 211	Principles of Biology I	4
& 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	3
or AGRON 320	Genetics, Agriculture and Biotechnology	

Physical Sciences: 8-9 cr.

CHEM 163	College Chemistry	5
& 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	3
BBMB 221	Structure and Reactions in Biochemical Processes	3
CHEM 231	Elementary Organic Chemistry	4
& 231L	and Laboratory in Elementary Organic Chemistry	

Mathematical Sciences 6 cr.

MATH 140	College Algebra	3
or MATH 150	Discrete Mathematics for Business and Social Sciences	
Statistics course		3

Agricultural Sciences: 28-29 cr.

AGRON 181	Introduction to Crop Science	3
or HORT 221	Principles of Horticulture Science	
AGRON 182	Introduction to Soil Science	3
AGRON 206	Introduction to Weather and Climate	3
AGRON 217	Weed Identification	1-2
or AGRON 330	Crop and Seed Identification Laboratory	
AGRON 281	Crop Physiology	3
AGRON 316	Crop Structure-Function Relationships	3
or HORT 321	Horticulture Physiology	
AGRON 354	Soils and Plant Growth	3
9 credits from AGRON, HORT, or TSM (6 credits at 300-400 level)		9

Economics and Business: 9 cr.

ECON 101	Principles of Microeconomics	3
Six credits from the following:		6
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	3
AGRON 338	Seed Science and Technology	3
AGRON 421	Introduction to Plant Breeding	3
ENT 376	Fundamentals of Entomology and Pest Management	3
PL P 408	Principles of Plant Pathology	3
One of the following:		
AGRON 311	Professional Internship in Agronomy (seed related)	1
AGRON 491	Seed Science Internship Experience	1-2
HORT 391	Horticultural Management Experience	1

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> (<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> (<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).