

The following courses are required for all Agronomy students graduating in the Soil & Environmental Science Option. This option is designed primarily for those individuals interested in employment in environmental science or natural resource management.

AGRONOMIC SCIENCES (24.5-25.5 credits)

AGRON 105	Leadership Experience	R	F, S, SS
AGRON 110	Prof. Dev. in Agronomy: Orientation	0.5(1-0)	F
AGRON 114	Principles of Agronomy	3(2-3 to 4)	F, S
AGRON 154	Fundamentals of Soil Science	3(2-2 to 4)	F, S
AGRON 206	Introduction to Meteorology	3(3-0)	F, S
AGRON 210	Prof. Dev. in Agronomy: Career Planning	1(1-0)	F, S
AGRON 230	Crop Structure-Function Relationships	3(3-0)	F, S
AGRON 260	Soils & Environmental Quality	3(2-3)	F, S
AGRON 310	Prof. Dev. in Agronomy: Internship	R	F, S, SS
AGRON 354	Soils and Plant Growth	3(3-0)	F, S
AGRON 354L	Soils and Plant Growth Laboratory	1(0-3)	F, S
AGRON 356	Soil, Fertilizer, and Water Management	4(3-2)	F
OR			
AGRON 360	Environmental Soil Science	3(2-3)	S
OR			
AGRON 392	Systems Analysis in Crop & Soil Mgt.	3(2-3)	F, S
AGRON 410	Prof. Dev. in Agronomy: Senior Forum	1(1-0)	F, S

(A minimum of 15 credits in Agronomy must be earned at Iowa State.)

ENVIRONMENTAL SCIENCES (12-14 credits)

ENSCI 345	Natl Resource Photogrammetry and GIS	3(2-3)	F
ENSCI 446	Integrating GPS, GIS for Natl Res Mgmt	3(2-3)	S

Select at least 2 of the following courses:

ENSCI 402	Watershed Hydrology and Surficial Processes	4(3-3)	F, SS
ENSCI 404	Global Change	3(3-0)	S
ENSCI 459	Environmental Soil and Water Chemistry	3(3-0)	Alt. F
ENSCI 473	Soil Genesis and Landscape Relationships	4(2-3)	S, SS
ENSCI 485	Soil Microbial Ecology	3(2-3)	F

ECONOMICS AND BUSINESS (6 credits)

ECON 101	Principles of Microeconomics	3(3-0)	F, S, SS
ENV S 380	Environmental and Resource Economics	3(3-0)	F, S

COMMUNICATIONS (12.5 credits)

ENGL 104	First-Year Composition I	3(3-0)	F, S, SS
ENGL 105	First-Year Composition II	3(3-0)	F, S, SS
LIB 160	Library Instruction	0.5(1-0)	F, S
SP CM 212	Fundamentals of Public Speaking	3(3-0)	F, S, SS
OR			
AG EDS 311	Pres. & Sales Strat. for Ag. Audiences	3(3-0)	F, S
OR			
ENGL 302	Business Communication	3(3-0)	F, S, SS
OR			
ENGL 309	Report and Proposal Writing	3(3-0)	F, S
OR			
ENGL 314	Technical Communication	3(3-0)	F, S, SS

BIOLOGICAL SCIENCES (11 credits)

BIOL 211 & 211L	Principles of Biology I & Lab	4(3-3)	F, S
BIOL 212 & 212L	Principles of Biology II & Lab	4(3-3)	F, S
MICRO 201	General Microbiology	2(2-0)	F, S
MICRO 201L	Introductory Microbiology Laboratory	1(0-2)	F, S

PHYSICAL SCIENCES (17 credits)

CHEM 163 & 163L	General Chemistry & Laboratory	5(4-3)	F, S, SS
CHEM 231 & 231L	Elementary Organic Chem. & Lab.	4(3-3)	F, S, SS
GEOL 100 & 100L	The Earth & Laboratory	4(3-2)	F, S
PHYS 106	The Physics of Common Experience	4(4-2)	F, S

MATHEMATICAL SCIENCES (6 credits)

MATH 140	College Algebra	3(3-1)	F, S, SS
STAT 104	Introduction to Statistics	3(2-2)	F, S, SS

HUMANITIES, ETHICS, AND SOCIAL SCIENCE (15 credits)

Three credits each in ethics, U.S. diversity, international perspectives, humanities, and social sciences (all courses must be from approved lists).

ELECTIVE CREDITS (21-24 credits)

128 total credits required for graduation