Soil & Water Sciences

PURDUE UNIVERSITY

Agronomy Department / College of Agriculture

COA-AGRY-BS / Major: SHSC 201710
120 Credits for graduation

Name:_____ **PUID:**_____ **Date:** _____

Required Major Courses (29 to 30 credits)

_____ (3) AGRY 25500[CC] Soil Science
_____ (3) AGRY 29000 Introduction to Environmental Science
_____ (3) AGRY 33500 Weather and Climate
_____ (3) AGRY 33700 Environmental Hydrology
_____ (3) AGRY 36500 Soil Fertility
_____ (4or 3) AGRY 38500 Environmental Soil Chemistry Or AGRY 34900 Soil Ecology
_____ (1) AGRY 39800 Agronomy Seminar
_____ (3) AGRY 45000 Soil Conservation and Water Management
Or AGRY 58500 Soils and Land Use
_____ (3) AGRY 46500 Soil Physical Properties
_____ (1) AGRY 49800 Agronomy Senior Seminar
_____ (3) AGRY 56500 Soil Classification, Genesis, and Survey

Other Departmental/ Program Course Requirements (80 credits) (See Advising Resources)

_____ (0.5) AGR 10100 Introduction to the College of Agriculture and Purdue University
_____ (0.5) AGR 11300 Introduction to Agronomy Academic Programs
_____ (3) Genetics or Crop Physiology and Ecology or Biochemistry[7]
_____ (4) BIOL 11000 Fundamentals of Biology I
_____ (4) BIOL 11100 Fundamentals of Biology II Or BTNY 11000 Introduction to Plant Science
_____ (3) CHM 11100 General Chemistry (satisfies Science Selective for core)
_____ (3) CHM 11200 General Chemistry (satisfies Science Selective for core)
_____ (4) CHM 25700 Organic Chemistry
_____ (1) CHM 25701 Organic Chemistry Laboratory
_____ (3) EAPS 11100 Physical Geology
_____ (3) MA 16010 Applied Calculus I (satisfies Quantitative Reasoning Selective for core)
_____ (3) MA 16020 Applied Calculus II
_____ (4) PHYS 22000 General Physics
_____ (4) PHYS 22100 General Physics
_____ (3) STAT 30100 Elementary Statistical Methods (satisfies Information Literacy Selective for core)
_____ (3) Crop or Plant Science Selective[5]
_____ (3) Ecology Selective[6]
_____ (3) Engineering or Science Selective[8]
_____ (3) Agricultural Economics, Economics, Management or Organizational Leadership and Supervision Selective[4]
_____ (3) Economics Selective (satisfies Human Culture Behavioral/Social Science for core)
_____ (3) UCC Humanities Selective (satisfies Human Cultures Humanities for core)[1]
_____ (3) Humanities or Social Science Selective[2]
_____ (3) Humanities or Social Science Selective[2]
_____ (3) Humanities or Social Science Selective (30000+ level) [2]
_____ (4) ENGL 10600 First-Year Composition ***(satisfies Written Communication for core)***
_____ (3) COM 11400 or Fundamentals of Speech Communication ***(satisfies Oral Communication for core)***
COM 21700 Science Writing and Presentation
_____ (3) Written or Oral Communication Selective[3]

Electives (10 or 11 credits)

_____ (10 or 11) Electives

University Core Requirements (http://www.purdue.edu/provost/initiatives/curriculum/course.html)

Human Cultures Humanities	☐ _____	*Science, Technology & Society Selective*	☐ _____
Human Cultures Behavioral/Social Science	☐ _____	*Written Communication*	☐ _____
Information Literacy	☐ _____	*Oral Communication*	☐ _____
Science Selective	☐ _____	*Quantitative Reasoning*	☐ _____
Science Selective	☐ _____		

College of Agriculture & University Level Requirements (https://ag.purdue.edu/oap/Pages/core_requirements.aspx)

3 credits Multicultural Awareness	☐ _____		
9 credits International Understanding	☐ _____	☐ _____	☐ _____
9 credits of Hum. And/or Social Sciences outside the College of Agriculture	☐ _____	☐ _____	☐ _____
3 credits of Hum. And/or Social Science at 30000 or higher	☐ _____		

Soil & Water Sciences

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
0.5	AGR 10100 Intro to the College of Agriculture and Purdue University		4	BIOL 11100 Fundamentals of Biology II or BTNY 11000 Introduction to Plant Science	BIOL 11000
0.5	AGR 11300 Introduction to Agronomy Academic Programs		3	CHM 11200 General Chemistry	CHM 11100
4	BIOL 11000 Fundamentals of Biology I		3	MA 16020 Applied Calculus II	MA 16010
3	CHM 11100 General Chemistry		3	Economics Selective	
4	ENGL 10600 First-Year Composition		2	Elective	
3	MA 16010 Applied Calculus I	ALEKS 75+			
15			**15**		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
3	AGRY 25500[CC] Soil Science	CHM 11200	3	AGRY 36500 Soil Fertility	AGRY 25500
3	AGRY 29000 Introduction to Environmental Science		3	COM 11400 Fundamentals of Speech or COM 21700 Science of Writing and Presentation	
1	AGRY 39800 Agronomy Seminar		4	PHYS 22000 General Physics	
4	CHM 25700 Organic Chemistry	CHM 11200	3	Ecology Selective	
1	CHM 25701 Organic Chemistry Laboratory		3	Elective	
3	Crop or Plant Science Selective				
15			**16**		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
4 or 3*	AGRY 38500 Environmental Soil Chemistry or AGRY 34900 Soil Ecology	AGRY 25500 or BIOL 11000	3	AGRY 33700 Environmental Hydrology	BIOL 11100
3	EAPS 11100 Physical Geology		3	STAT 30100 Elementary Statistical Methods	
4	PHYS 22100 General Physics	PHYS 22000	3	Genetics or Crop Physiology and Ecology, or Biochemistry selective	
3	UCC Humanities Selective		3	Humanities or Social Science Selective	
3	Elective		3	Written or Oral Communication Selective	
16/17			**15**		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	AGRY 45000 Soil Conservation and Water Management or AGRY 58500 Soils and Land Use	AGRY 25500	3	AGRY 33500 Weather and Climate	PHYS 22000
3	AGRY 46500 Soil Physical Properties	AGRY 25500	3	Engineering or Science Selective	
1	AGRY 49800 Agronomy Senior Seminar		3	Agricultural Economics, Economics, Management or Organizational Leadership and Supervision Selective	
3	AGRY 56500 Soil Classification, Genesis, and	AGRY 25500	3	Humanities or Social Science Selective	
3	Humanities or Social Science Selective (30000+ level)		3	Elective	
13			**15**		

1) 120 credits listed above are required for Bachelor of Science degree.

2) 2.0 Graduation GPA required for Bachelor of Science degree.

3) 32 credits of upper division courses (30000 level or higher) must be taken at Purdue University, West Lafayette.

4) ANY COURSE TAKEN AT PURDUE CAN BE ATTEMPTED NO MORE THAN THREE TIMES (INCLUSIVE OF W, WF, I AND IF).

5) CC = is considered a critical course

See next page for all supplemental Information

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The student is ultimately responsible for knowing and completing all degree requirements.
myPurdue Plan is knowledge source for specific requirements and completion

SHSC Supplemental Information

[1]University Core Curriculum Humanities Selective (3 credits)

See approved Humanities list at: http://www.purdue.edu/provost/initiatives/curriculum/course.html

[2]Humanities and Social Science Selective (9 credits)

See approved list at: https://ag.purdue.edu/oap/pages/core-social_humanities.aspx

[3]Written or Oral Communication Selective (3 credits)

AGR 20100 Communication Across Culture	COM 20000-59900	YDAE 44000 Methods of Teaching Agriculture
ASL 10000-59900	ENGL 20000-59900	Education

[4]Agricultural Economics, Economics, Management or Organizational Leadership and Supervision Selective (3 credits)

AGEC 10000-59999	MGMT 10000-59999
ECON 10000-59999	OLS 10000-59999

[5]Crop Plant Selective (3 credits)

AGRY 10500 Crop Production	AGRY 32000 Genetics	AGRY 55000 Field Crops Breeding Techniques
AGRY 11000 Survey of Turfgrass Culture	AGRY 32100 Genetics Laboratory	AGRY 57200 Molecular Cytogenetics
AGRY 20400 Crop and Weed Identification	AGRY 50500 Forage Management	BTNY 20400 Crop and Weed Identification
AGRY 21000 Fundamentals of Turfgrass Culture	AGRY 51000 Turfgrass Science	BTNY 21100-59999
AGRY 21100 Fundamentals of Turfgrass Culture Laboratory	AGRY 51100 Population Genetics	HORT 20100 Plant Propagation
AGRY 28500 World Crop Adaptation and Distribution	AGRY 51200 Integrated Turfgrass Systems	HORT 21700 Woody Landscape Plants
AGRY 30500 Seed Analysis and Grain Grading	AGRY 51500 Plant Mineral Nutrition	HORT 21800 Herbaceous Landscape Plants
AGRY 30600 Seed Technology	AGRY 52000 Principles and Methods of Plant Breeding	HORT 30100 Plant Physiology
AGRY 31100 Turfgrass Diagnostics	AGRY 52500 Crop Physiology and Ecology	

[6]Ecology Selectives (3 credits)

AGRY 34900 Soil Ecology	BTNY 21100 Plants and the Environment	FNR 24100 Ecology and Systematics of Fishes and Mammals
BIOL 12100 Biology I: Diversity, Ecology, and Behavior	BTNY 30200 Plant Ecology	FNR 24150 Ecology and Systematics of Fishes, Amphibians, and Reptiles
BIOL 28600 Introduction to Ecology and Evolution	EEE 30000 Environmental and Ecological Systems Modeling	FNR 25100 Ecology and Systematics of Amphibians, Reptiles, and Birds
BIOL 48300 Environmental and Conservation Biology	ENTM 31100 Insect Ecology	FNR 25150 Ecology and Systematics of Mammals and Birds
BIOL 58500 Ecology	FNR 20100 Marine Biology	FNR 35900 Spatial Ecology and GIS

[7]Genetics, Crop Physiology and Ecology or Biochemistry Selective (3 credits)

AGRY 32000 Genetics	AGRY 52500 Crop Physiology and Ecology	BCHM 30700 Biochemistry

SHSC Supplemental Information

[8]Engineering or Science Selective (3 credits)

ABE 32500 Soil and Water Resource Engineering	BTNY 21100 Plants and the Environment	EAPS 22100 Survey of Atmospheric Science
ABE 52200 Ecohydrology	BTNY 30100 Introductory Plant Physiology	ENTM 20600 General Entomology
ABE 52500 Irrigation Management and Design	BTNY 30500 Fundamentals of Plant Classification	ENTM 20700 General Entomology Laboratory
ABE 52600 Watershed Systems Design	BTNY 31600 Plant Anatomy	ENTM 21000 Introduction to Insect Behavior
AGEC 35200 Quantitative Techniques for Firm Decision Making	BTNY 35000 Biotechnology in Agriculture	ENTM 30600 General Applied Entomology
AGEC 45100 Applied Econometrics	CE 34100 Hydraulics, Hydrology, and Drainage	ENTM 30700 Companion Laboratories to ENTM 30600
AGRY 25500 Soil Science	CE 35000 Environmental Engineering	ENTM 34000 Insect Pests of Trees, Turf, and Ornamentals
AGRY 27000 Forest Soils	CE 35500 Engineering Environmental Sustainability	HONR 49900 Human Diseases and Disorders
AGRY 32000 Genetics	CE 54200 Hydrology	HORT 30100 Plant Physiology
AGRY 32100 Genetics Laboratory	CHM 22400 Introductory Quantitative Analysis	HORT 35000 Biotechnology in Agriculture
AGRY 33500 Weather and Climate	CHM 25500 Organic Chemistry	MA 16200 Plane Analytic Geometry and Calculus II
AGRY 33600 General Meteorology	CHM 25501 Organic Chemistry Laboratory	MA 16600 Analytic Geometry and Calculus II
ANSC 22100 Principles of Animal Nutrition	CHM 25600 Organic Chemistry	MA 22400 Introductory Analysis II
ANSC 23000 Physiology of Domestic Animals	CHM 25601 Organic Chemistry Laboratory	MA 23200 Calculus for the Life Sciences II
BCHM 30700 Biochemistry	CHM 25700 Organic Chemistry	MA 26100 Multivariate Calculus
BCHM 30900 Biochemistry Laboratory	CHM 25701 Organic Chemistry Laboratory	MA 26500 Linear Algebra
BIOL 22100 Introduction to Microbiology	CHM 26100 Organic Chemistry	NRES 23000 Survey of Meteorology
BIOL 23100 Biology III: Cell Structure and Function	CHM 26200 Organic Chemistry	NRES 25500 Soil Science
BIOL 23200 Laboratory in Biology III: Cell Structure and Function	CHM 26300 Organic Chemistry Laboratory	PHYS 15200 Mechanics
BIOL 24100 Biology IV: Genetics and Molecular Biology	CHM 26400 Organic Chemistry Laboratory	PHYS 17200 Modern Mechanics
BIOL 24200 Laboratory in Biology IV: Genetics and Molecular Biology	CS 15200 FORTRAN Programming for Engineers	PHYS 21400 The Nature of Physics
BIOL 27000 Cell Structure and Function	CS 15600 C Programming	PHYS 22000 General Physics
BIOL 27100 Laboratory in Cell Structure and Function	CS 18000 Programming I	PHYS 22100 General Physics
BIOL 28000 Genetics and Molecular Biology	EAPS 11100 Physical Geology	PHYS 24100 Electricity and Optics
BIOL 28100 Laboratory in Genetics and Molecular Biology	EAPS 11200 Earth Through Time	STAT 50200 Experimental Statistics II
BIOL 28600 Introduction to Ecology and Evolution	BTNY 11000 Introduction to Plant Science	STAT 51100 Statistical Methods
BIOL 28700 Laboratory in Introduction to Ecology	BTNY 21000 Introduction to Plant Science	STAT 51200 Applied Regression Analysis