


# SPECIALTY AGRICULTURE, B.S.

## Specialty Agriculture














Specialty Agriculture in this context refers to sustainable, high-yield agriculture that can be economically sustainable in mountainous regions and small land areas. The Bachelor of Science in Specialty Agriculture provides educational opportunities in agriculture, agribusiness, and agrotourism, covering both traditional and sustainable agricultural sciences. New and emerging technologies for high yield and specialty agriculture are emphasized, as they will improve agribusiness outcomes for smaller farms that are characteristic of the region. Focus of the major includes, but is not limited to, the agricultural aspects of greenhouse production, hydroponics, precision farming, urban agriculture, community gardens, and specialty crop production.











 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

## Major





The Core Curriculum is designed to foster critical thinking skills and introduce students to basic domains of thinking that transcend disciplines. The Core applies to all majors. Information on specific classes in the Core can be found at <https://www.marshall.edu/gened/>.

Code	Title	Credit Hours
<b>Core Curriculum</b>		
<i>Core 1: Critical Thinking</i>		
FYS 100	First Yr Sem Critical Thinking	3
NRE 220 	Human Dimensions of Nat Res	3
NRE 120 	Discussions in Envriion Science	3
<i>Core 2</i>		
ENG 101  	Beginning Composition	3
ENG 201  	Advanced Composition	3
CMM 103  	Fund Speech-Communication	3
Select one of the following:		
MTH 140 	Applied Calculus	
MTH 229 	Calculus/Analytic Geom I (CT)	
Core II Humanities		3
Core II Social Science		3
GEO 222 	Global Environment Issues (CT) (recommended)	
Core II Fine Arts		3
Core II Physical/Natural Science		4
<i>Additional University Requirements</i>		
Writing Intensive		3
GEO 222 	Global Environment Issues (CT) (recommended)	
Writing Intensive		3
Multicultural or International		3
GEO 222 	Global Environment Issues (CT) (recommended)	
<b>Department Requirements</b>		

IST 150	Spreadsheet & Database Prin	3
NRE 120 	Discussions in Envriion Science	3
NRE 220 	Human Dimensions of Nat Res	3
NRRM 101 	Intro Natural Res & Rec Mgmt	3
NRE 490	ES/NRRM Capstone Prep	3
NRE 470	ES Internship	3
	or NRE 491  ES Senior Capstone	
NRRM 200	Analytical Methods: Statistics	4
<b>Major-Specific Requirements</b>		
BSC 120 	Principles of Biology	4
BSC 121 	Principles of Biology	4
CHM 211 	Principles of Chemistry I	3
CHM 212 	Principles Chemistry II	3
CHM 217 	Principles of Chem Lab I	2
CHM 218 	Principles of Chem Lab II	2
ENT 360	Intro to Entrepreneurship	3
MGT 320	Principles of Management	3
NRE 322	Assess I: Terrestrial Systems	4
NRE 323	Assessment II: Aquatic Ecology	4
NRE 200	Introduction to Agriculture	3
NRE 300	Principles of Soil Science	3
NRE 301	Principles of Soil Science Lab	2
NRE 302	Animal Production	3
NRE 401	Horticulture	4
NRE 402	Sustainable Agriculture	3
NRE 403	Agricultural Entomology	4

### Major-Specific Electives 12-14

In consultation with the NRE/COS advisors, students will select electives from Marshall University offerings best suited to prepare students to apply for the following fields or professional credentials: nutrient management certification, outreach and education, agritourism, agribusiness, soil science professional, soil health, food security, animal production, and crop production. The student will select these electives in consultation with NRE/COS advisors to reach to 120 credit hours required for graduation. Additional electives may be used to satisfy general education requirements (e.g., writing intensive). A minimum of 40 hours must be 300-400 level courses. Below is a list of courses that could be considered; however, the list is not exhaustive and other courses can be considered based on consultation between the student and NRE/COS advisors.


<i>Nutrient Management</i>		
GEO 101 	Physical Geography (CT)	
GEO 222 	Global Environment Issues (CT)	
GLY 455	Hydrogeology	
NRE 423	GIS and Data Systems	
NRE 425	Water Policy and Regulations	
NRE 400	Soil Fertility/Plant Nutrition	
<i>Soil Health/Soil Science</i>		
BSC 320	Principles of Ecology	
BSC 445	Microbial Ecology	
GEO 101 	Physical Geography (CT)	
GLY 200 	The Dynamic Earth	

GLY 314	Mineralogy
GLY 455	Hydrogeology
NRE 423	GIS and Data Systems
NRE 400	Soil Fertility/Plant Nutrition


**Food Security**

DTS 202	Introductory Foods
DTS 210	Nutrition
DTS 301	FS Safety & Systems Mgt I
DTS 302	FS Safety & Sys Mgt II
DTS 410	Cross Cultural Foods
GEO 222 	Global Environment Issues (CT)
HST 390	Food in World History
HST 392	Food Markets and Modernity

**Crop Production**

BSC 302	Principles of Microbiology
BSC 320	Principles of Ecology
BSC 322	Principles Cell Biology
BSC 324	Principles of Genetics
BSC 416	Plant Taxonomy
BSC 420	Plant Physiology
BSC 430	Plant Ecology
GEO 222 	Global Environment Issues (CT)
HST 392	Food Markets and Modernity
NRE 425	Water Policy and Regulations
NRE 400	Soil Fertility/Plant Nutrition

**Animal Production**


BSC 301	Vertebrate Embryology
BSC 302	Principles of Microbiology
BSC 320	Principles of Ecology
BSC 322	Principles Cell Biology
BSC 324	Principles of Genetics
BSC 401	Ichthyology
BSC 408	Ornithology
BSC 409	Mammalogy
BSC 422	Animal Physiology
BSC 424	Animal Parasitology
NRE 425	Water Policy and Regulations
GEO 222 	Global Environment Issues (CT)
HST 392	Food Markets and Modernity
NRE 425	Water Policy and Regulations
NRE 400	Soil Fertility/Plant Nutrition
NRE 425	Water Policy and Regulations
NRE 400	Soil Fertility/Plant Nutrition

**Agritourism**

ENT 320	Marketing for Entrepreneurs
MKT 231	Principles of Selling
MKT 340	MKT Concepts and Applications
NRRM 360	Tourism Planning & Management
NRRM 362	Ecotourism: Admin and Mgmt

**Education and Outreach**

CI 248	Intro to Science Elem Ed
EDF 201	Ed Psych Developing Learner

GEO 222 	Global Environment Issues (CT)
NRRM 231	Nature Study
NRRM 310	Environmental Interpretation
NRRM 311	Intro to Environmental Educ


**Agribusiness**









DTS 202	Introductory Foods
HST 390	Food in World History
MKT 231	Principles of Selling
MKT 340	MKT Concepts and Applications

## Major Information



- **Capstone Experience:** It is the responsibility of each student to consult his/her advisor regarding details of meeting the capstone requirement. The Capstone for this degree is completed in the summer.
- Students are required to know and track their degree requirements for graduation or for entrance to a professional school.
- Coursework listed as “elective” may vary for each student. Students are encouraged to use elective hours toward a minor or toward prerequisites.
- Students are strongly encouraged to select courses that meet two or more Core or College requirements. For example, a writing intensive literature course could satisfy the Core II Humanities requirement as well as the university writing intensive requirement.
- Course offerings and course attributes are subject to change each semester. Please consult each semester’s schedule of courses for availability and attributes.
- Minimum 2.0 overall and MU and in all NRRM coursework required for graduation.
- Minimum of 120 hours (40 upper level) required for graduation.

 - General Education Course




 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

Course	Title	Credit Hours
<b>First Year</b>		
<b>First Semester</b>		
IST 150	Spreadsheet & Database Prin	3
NRE 120 	Discussions in Envrion Science	3
MTH 140 	Applied Calculus	3
ENG 101 	Beginning Composition	3
FYS 100	First Yr Sem Critical Thinking	3
UNI 100	Freshman First Class	1
Credit Hours		16
<b>Second Semester</b>		
ENG 201 	Advanced Composition	3
CMM 103 	Fund Speech-Communication	3
BSC 120 	Principles of Biology	4
GEO 222 	Global Environment Issues (CT)	3
NRE 220 	Human Dimensions of Nat Res	3
Credit Hours		16

**Second Year****First Semester**

CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
Core II Humanities		3
Core II Fine Arts		3
NRE 200	Introduction to Agriculture	3
	Credit Hours	14

**Second Semester**

BSC 121 	Principles of Biology	4
CHM 212 	Principles Chemistry II	3
CHM 218 	Principles of Chem Lab II	2
NRRM 200	Analytical Methods: Statistics	4
NRE 302	Animal Production	3
	Credit Hours	16

**Third Year****First Semester**

NRE 323	Assessment II: Aquatic Ecology	4
NRE 300	Principles of Soil Science	3
NRE 301	Principles of Soil Science Lab	2
NRE 403	Agricultural Entomology	4
Major Specific Elective		4
	Credit Hours	17


**Second Semester**

NRE 490	ES/NRRM Capstone Prep	3
NRE 322	Assess I: Terrestrial Systems	4
MGT 320	Principles of Management	3
Major Specific Elective		4
BSC 420	Plant Physiology	4
	Credit Hours	18

**Fourth Year****First Semester**

NRE 402	Sustainable Agriculture	3
ENT 360	Intro to Entrepreneurship	3
Major Specific Elective		3
Major Specific Elective		3
Major Specific Elective		4
	Credit Hours	16

**Second Semester**

NRE 470 or NRE 491 	ES Internship or ES Senior Capstone	3
NRE 401	Horticulture	4
Writing Intensive		3
Major Specific Elective		4
	Credit Hours	14
	Total Credit Hours	127