

# Animal and Nutritional Science, B.S.

## General Education Foundations

Please use this link to view a list of courses that meet each GEF requirement. (<http://registrar.wvu.edu/gef/>)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

Code	Title	Hours
<b>General Education Foundations</b>		
F1 - Composition & Rhetoric		3-6
ENGL 101 & ENGL 102 or ENGL 103	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing	
F2A/F2B - Science & Technology		4-6
F3 - Math & Quantitative Reasoning		3-4
F4 - Society & Connections		3
F5 - Human Inquiry & the Past		3
F6 - The Arts & Creativity		3
F7 - Global Studies & Diversity		3
F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)		9
Total Hours		31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

## Curriculum Requirements

Code	Title	Hours
	University Requirements	50
	Animal and Nutritional Sciences Program Requirements	40
	Animal and Nutritional Sciences Major Requirements	30
Total Hours		120

## University Requirements

Code	Title	Hours
	General Education Foundation (GEF) Requirements 1, 2, 3, 4, 5, 6, 7, and 8 (31-37 Credits)	
	Outstanding GEF Requirements 1, 4, 5, 6, and 7	18
ANRD 191	First-Year Seminar	1
	General Electives	31
Total Hours		50

## Animal and Nutritional Sciences Program Requirements

Code	Title	Hours
	Biology Requirement:	8
BIOL 101 & 101L & BIOL 102 & BIOL 102L	General Biology 1 and General Biology 1 Laboratory and General Biology 2 and General Biology 2 Laboratory	
BIOL 115 & 115L & BIOL 117 & BIOL 117L	Principles of Biology and Principles of Biology Laboratory and Introductory Physiology and Introductory Physiology Laboratory	

CHEM 115 & 115L	Fundamentals of Chemistry 1 and Fundamentals of Chemistry 1 Laboratory	4
CHEM 116 & 116L	Fundamentals of Chemistry 2 and Fundamentals of Chemistry 2 Laboratory	4
Physics Requirement		8
PHYS 101 & 101L & PHYS 102 & PHYS 102L	Introductory Physics 1 and Introductory Physics 1 Laboratory and Introductory Physics 2 and Introductory Physics 2 Laboratory	
OR		
PHYS 111 & 111L & PHYS 112 & PHYS 112L	General Physics 1 and General Physics 1 Laboratory and General Physics 2 and General Physics 2 Laboratory	
Math Requirement (also fulfills GEF 3 requirement)		6
Calculus or Advanced Chemistry Requirement		6
CHEM 231 & 231L	Organic Chemistry: Brief Course and Organic Chemistry: Brief Course Laboratory	
CHEM 233 & 233L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory	
CHEM 234 & 234L	Organic Chemistry 2 and Organic Chemistry 2 Laboratory	
AGBI 410	Introductory Biochemistry	
MATH 150	Applied Calculus	
MATH 153	Calculus 1a with Precalculus	
MATH 154	Calculus 1b with Precalculus	
MATH 155	Calculus 1	
MATH 156	Calculus 2	
Science Electives (as necessary to reach at least 40 hours of science credits)		4
Total Hours		40

## Animal and Nutritional Sciences Major Requirements

Code	Title	Hours
<b>Courses in Agriculture</b>		<b>24</b>
12-Credits at the 300 or 400-Level		
<b>Writing and Communication Skills Requirement *</b>		<b>3</b>
A&VS 402	Values and Ethics	
A&VS 451	Current Literature in Animal Science	
<b>Capstone Experience *</b>		<b>3</b>
A&VS 402	Values and Ethics	
A&VS 491	Professional Field Experience	
A&VS 496	Senior Thesis	
Total Hours		30

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Students completing A&VS 402 as the Writing and Capstone requirements will be required to complete an additional Course in Agriculture.

## SUGGESTED PLAN OF STUDY FOR BACHELOR OF SCIENCE - ANIMAL & NUTRITIONAL SCIENCES MAJOR

### First Year

Fall	Hours	Spring	Hours
A&VS 191		1 A&VS 150	2
ENGL 101 (GEF 1)		3 BIOL 117 & 117L (GEF 8)	4

CHEM 115 & 115L (GEF 8)	4 CHEM 116 & 116L (GEF 8)	4
BIOL 115 & 115L (GEF 2)	4 MATH 128 (if needed or Elective)	3
Depending on QRA score select one of the following (GEF 3):	3 GEF 4	3
MATH 124		
MATH 126		
MATH 129		
MATH 150		
MATH 153		
MATH 155		

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**Second Year**

Fall	Hours	Spring	Hours
A&VS 251		4 ANNU 260	3
CHEM 233		3 CHEM 234	3
CHEM 233L		1 CHEM 234L	1
PHYS 101		4 PHYS 102	4
ENGL 102 (GEF 1)		3 GEF 6	3
		GEF 7	3

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**Third Year**

Fall	Hours	Spring	Hours
ANPH 301		3 GEN 371	4
AGBI 410		3 Electives	9
AEM 341		3	
AEM 341L		1	
Electives		6	

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**Fourth Year**

Fall	Hours	Spring	Hours
Electives		9 Electives	7
Science Elective		3 Capstone	3
GEF 5		3 Writing and Communication Skills Requirement	3

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Total credit hours: 120

## Major Learning Outcomes

### ANIMAL & NUTRITIONAL SCIENCES

1. Graduates will acquire a high level of competency in the basic sciences required for disciplinary competency.
2. Graduates will integrate basic knowledge and managerial skills related to the animal, nutritional and food sciences disciplines.
3. Graduates will acquire sufficient written and oral communication skills, problem solving and critical thinking skills to effectively impact lifelong societal and professional developments critical to their respective discipline of interest.
4. Graduates will attain depth of knowledge relative to the scope of subfields of the animal and nutritional sciences:
  - a. Animal production, management and marketing
  - b. Animal nutrition
  - c. Environmental stewardship