

**BIOCHEMICAL SCIENCES MAJOR – PRE-VETERINARY MEDICINE SPECIALIZATION (A.S.) INTERESTED IN ANIMAL SCIENCES MAJOR – ANIMAL BIOSCIENCES (PRE-VET) SPECIALIZATION (B.S.)**

*This model plan of study is presented as a suggested path to graduate in 4 years with an Associate of Science Degree with a major in Biochemical Sciences and specialization in Pre-Veterinary Medicine and a Bachelor of Science Degree in Agriculture with a major in Animal Sciences and specialization in Animal Biosciences. It is intended to be a useful guide; however, each student is unique and should review the Degree Requirements and work with their advisor to develop an individualized course plan that best fits their personal academic background and goals.*

**NOTE:** This sheet should not be used in isolation. In order to graduate in a timely manner, students must consult their academic advisor on a regular basis.

<b>Freshman Year (ATI)</b>	<b>Autumn Semester</b>				<b>Spring Semester</b>			
<b>Benchmarks</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>
<i>BIOLOGY 1113 should be completed by the end of this year.</i>	BIOTECH	1201T	Biochemical Sciences and Biotechnology	.5	AGRCOMM	3130	Oral Expression in Ag	3
<i>CHEM 1210 &amp; 1220 should be completed by the end of this year.</i>	CHEM	1210	General Chemistry I	5	BIOLOGY	1113	Energy Transfer and Development	4
<i>ENGLISH 1110 should be completed by the end of this year.</i>	ENGLISH	1110.01	First-Year English Composition	3	CHEM	1220	General Chemistry II	5
<i>Begin to consider study abroad programs.</i>	GENSTDS	1201.01T	College Orientation	.5	RURLSOC	1500	Intro. Rural Sociology <sup>a</sup>	3
	MATH	1150	Precalculus	5				
			<b>Total:</b>	<b>14</b>			<b>Total:</b>	<b>15</b>
<b>Sophomore Year (ATI)</b>	<b>Autumn Semester</b>				<b>Spring Semester</b>			
<b>Benchmarks</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>
<i>Apply to graduate from ATI at least one semester before the semester of your graduation.</i>	AEDECON	2001	Principles of Food and Resource Economics <sup>a</sup>	3	BIOLOGY	1114	Form, Function, Diversity & Ecology <sup>a</sup>	4
<i>Maintain at least a 2.0 cumulative GPA.</i>	ANMLTEC	3140T	Animal Anatomy and Physiology	4	MICRBIO	4000.01	Basic and Practical Microbiology <sup>a</sup>	4
<i>Graduate with Associate of Science Degree.</i>	CHEM	2510	Organic Chemistry I <sup>a</sup>	4	_____	_____	Lit/Art/Hist/Cul&Ideas	3
	_____	_____	Lit/Art/Hist/Cul&Ideas	3	_____	_____	Elective	3
	_____	_____	Elective	3				
			<b>Total:</b>	<b>17</b>			<b>Total:</b>	<b>14</b>
					<b>Total credit hours for Associate of Science Degree: 60</b>			
<b>Junior Year (Columbus)</b>	<b>Autumn Semester</b>				<b>Spring Semester</b>			
<b>Benchmarks</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>
<i>Begin to consider an internship location. Internship should be completed by end of this summer.</i>	ANIMSCI	2200.01	Intro. Animal Sci. Lec. <sup>b</sup>	3	ANIMSCI	2367	Animals in Society	3
	ANIMSCI	2200.02	Intro. Animal Sci. Lab. <sup>b</sup>	1				
<i>Apply to graduate from Columbus at least three semesters before the semester of your graduation.</i>	ANIMSCI	2200.03	Animal Systems	2	ANIMSCI	3150	Principles of Genetic Improvement <sup>b</sup>	3
	ANIMSCI	2260	Data Analysis	3	ANIMSCI	3200	Applied Animal Bioscience Laboratory	2
	ANIMSCI	3130	Principles of Animal Nutrition <sup>b</sup>	3	_____	_____	Minor equivalent course <sup>b</sup>	4
	_____	_____	Lit/Art/Hist/Cul&Ideas or Minor equivalent course (course not taken at ATI)	3	ANIMSCI	_____	Major Elective <sup>b</sup>	3
			<b>Total:</b>	<b>14</b>			<b>Total:</b>	<b>15</b>
<b>Senior Year (Columbus)</b>	<b>Autumn Semester</b>				<b>Spring Semester</b>			
<b>Benchmarks</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>	<b>Department</b>	<b>Course #</b>	<b>Course Name</b>	<b>Hours</b>
<i>Maintain at least a 2.0 GPA in the major, minor, and cumulative.</i>	ANIMSCI	3191	Internship <sup>b</sup>	2	ANIMSCI	2000	Animal Handling	2
<i>Graduate with Bachelor of Science Degree.</i>	ANIMSCI	3170	Animal Health I <sup>b</sup>	2	ANIMSCI	3160	Repro. Physiology	3
	ANIMSCI	_____	Production Course (1) <sup>b</sup>	4	ANIMSCI	3270	Animal Health II	2
	ANIMSCI	_____	Major Elective <sup>b</sup>	3	ANIMSCI	_____	Production Course (2) <sup>b</sup>	3-4
	ANIMSCI	_____	Major Elective <sup>b</sup>	2	ANIMSCI	4597	Contemporary Issues	3
	_____	_____	Lit/Art/Hist/Cul&Ideas (course not taken at ATI)	3	ANIMSCI	_____	Major Elective <sup>b</sup>	2
			<b>Total:</b>	<b>16</b>			<b>Total:</b>	<b>15-16</b>
					<b>Total credit hours for Bachelor of Science Degree: 121<sup>c</sup></b>			

<sup>a</sup> One possible course from approved CFAES GE list or B.S. major requirement that has multiple options, as outlined in corresponding Degree Requirements document.

<sup>b</sup> This course requirement may also be completed at ATI, and may be used as an elective in the A.S. major. See Degree Requirements for complete details.

<sup>c</sup> 121 total credit hours are required to graduate with the B.S. Animal Sciences major. Additional coursework may be necessary to complete all veterinary school prerequisite requirements. In order to graduate in a timely manner, students should use A.S. elective credits to complete additional course requirements for the B.S. major and/or admission to veterinary school.

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This advising sheet is for Ohio State ATI students that wish to earn both an Associate of Science (A.S.) Degree with a Biochemical Sciences major and specialization in Pre-Veterinary Medicine and a Bachelor of Science (B.S.) Degree with a major in Animal Sciences and specialization in Animal Biosciences. The tables below outline the complete degree requirements to earn a B.S. in Agriculture with a major in Animal Sciences and specialization in Animal Biosciences. The underlined courses are those that may also fulfill a requirement for the A.S. Biochemical Sciences major with a specialization in Pre-Veterinary Medicine. These courses can count toward both degree programs simultaneously.

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Subject	Course Options	Hours	✓
Survey Courses	<u>GENSTDS 1201.01T*</u> OR FAES 1100 and <u>BIOTECH 1201T*</u> OR ANIMSCI 1100	.5 .5	
Writing Level 1	<u>ENGLISH 1110</u>	3	
Writing Level 2	ANIMSCI 2367● or other course from approved CFAES GE list. <sup>b</sup>	3	
Oral Communication	<u>AGRCOMM 3130</u> or COMM 2110	3	
Math 1	<u>MATH 1150</u>	5	
Data Analysis	ANIMSCI 2260	3	
Biological Science	<u>BIOLOGY 1113</u>	4	
Physical Science	<u>CHEM 1210</u>	5	
Additional Science	<u>ANMLTEC 3140T</u> or ANIMSCI 3140	3-4	
Additional Science	<u>BIOLOGY 1114</u> , <u>CHEM 1220</u> , <u>MICRBIO 4000</u> , <u>MOLGEN 4500</u> , or <u>PHYSICS 1200</u>	3-5	
Social Science 1	<u>RURLSOC 1500●</u> or <u>SOCIOL 1101●</u>	3	
Social Science 2	<u>AEDECON 2001</u> or ECON 2001	3	
Historical Study	<u>HISTORY 1152</u> or other course from approved CFAES GE list. <sup>b</sup>	3	
Culture & Ideas or Historical Study	<u>RELSTDS 2370▲</u> or other course from approved CFAES GE list. <sup>b</sup>	3	
Literature	<u>COMPSTD 2301▲</u> or other course from approved CFAES GE list. <sup>b</sup>	3	
Art	<u>MUSIC 2250▲</u> or other course from approved CFAES GE list. <sup>b</sup>	3	
Minor Equivalent	See Table 2.	15	
Major	See Table 3.	40	
Contemporary Issues	ANIMSCI 4597 or other course from approved CFAES GE list. <sup>b</sup>	3	
Internship	ANIMSCI 3191 <sup>a</sup>	2	
Electives	Consult advisor for selection.	9-11	
<b>Minimum Total Credit Hours</b>		<b>121</b>	

<sup>a</sup> These course requirements may also be completed at ATI and used as an elective in the AS major. Maximum of 2 cr practicum may be used toward major electives. See *Animal Sciences Matrix* for specific course options.

<sup>b</sup> Available at [www.cfaes.osu.edu/students](http://www.cfaes.osu.edu/students).

<sup>c</sup> Prereq: 9 credit hours of 3000 level or above Animal Science courses

<sup>d</sup> Prereq: BIOCHEM 4511

<sup>e</sup> Prereq: ANIMSCI/MEATSCI 3110

\* courses are only offered at the Wooster (ATI) Campus

Note: A capital OR separates a pair of equivalent courses, a lowercase or separates a choice between different courses that fulfill the same requirement

Course(s)	Hours	✓
<b>Select 15 credit hours from the courses listed below:</b>		
BIOLOGY 1114 Form, Function, Ecology & Diversity	4	
BIOCHEM 4511 Introduction to Biological Chemistry	4	
<u>CHEM 2510</u> Organic Chemistry Lecture 1	4	
<u>CHEM 2520</u> Organic Chemistry Lecture 2	4	
MATH 1151 Calculus I	5	
<u>MICRBIO 4000.01</u> Basic & Practical Microbiology	4	
MOLGEN 4500 General Genetics	3	
PHYSICS 1200 Mechanics, Kinematics, Fluids, Waves	5	
PHYSICS 1201 E&M, Optics, Modern Physics	5	
<b>Total Minor Equivalent Credit Hours</b>	<b>15</b>	

Course(s)	Hours	✓
ANIMSCI 2000 Animal Handling	2	
ANIMSCI 2200.01 & 2200.02 OR ANIMSCI 2200.01 & ANMLTEC 2200.02T* OR ANMLTEC 2200T* & 2300T* Intro. Animal Sciences w/ Lab	4	
ANIMSCI 2200.03 Animal Systems	2	
ANIMSCI 3130 Principles of Animal Nutrition	3	
ANIMSCI 3150 Principles of Genetic Improvement OR ANMLTEC 3150T* Livestock Genetic Improvement	3	
ANIMSCI 3160 Reproductive Physiology	3	
ANIMSCI 3170 Animal Health I <sup>a</sup>	2	
ANIMSCI 3200 Applied Animal Bioscience Laboratory	2	
ANIMSCI 3270 Animal Health II	2	
<b>Production Course 1 Options (one from the following):</b>		
ANIMSCI 4001 Equine Production or ANIMSCI 4002.01 & 4002.02 Beef Cattle Prod. & Mgmt./Lab or ANIMSCI 4003.01 & 4003.02 Swine Production/Lab or ANIMSCI 4004.01 & 4004.02 Small Rum & Pseudo Rum/Lab or ANIMSCI 4005 Companion Animal Biology & Behavior or ANIMSCI 4006.01 & 4006.02 Poultry & Avian Mgmt./Lab or ANIMSCI 4007 Dairy Herd Management	4	
<b>Production Course 2 Options (one from the following):</b>		
a) An additional selection from Production Course 1 options b) ANIMSCI 5100 Advanced Growth & Development <sup>c</sup> c) ANIMSCI 5530 Comparative Animal Nutrient Metabolism <sup>d</sup> d) ANIMSCI/MEATSCI 5810 Branded Meat Products <sup>e</sup> e) A long-term study abroad experience f) Two short term study abroad experiences g) ANIMSCI 4189 Field Exp. (requires approval; letter graded)	3-4	
ANIMSCI Electives <sup>a</sup>	10-11	
<b>Total Major Credit Hours</b>	<b>40</b>	

**Additional Bachelor's Degree Requirements:**

- All students must complete at least one Social Diversity (●) course and two Global Issues (▲) courses. Please see the approved CFAES GE list for additional options.
- A 2.00 cumulative CPHR is required as well as a 2.00 CPHR in the major and minor coursework.
- Students must complete a minimum of 30 credit hours at The Ohio State University with at least 12 in the department in Columbus offering the major.
- Applications to graduate must be submitted at least three semesters in advance.