

**COLLEGE OF AGRICULTURE AND LIFE SCIENCES
BACHELOR OF SCIENCE IN ANIMAL AND POULTRY SCIENCES**

Major in Animal and Poultry Sciences

For students graduating in calendar year 2022 and for student date of entry under UG Catalog 2020-2021

Name: _____

Last 4 of Student ID # _____

PATHWAY TO GENERAL EDUCATION

Course & Number	Title	Credits
DISCOURSE (1)		
1F: ENGL 1105-1106	First-Year Writing	3 ___ 3 ___
1A: #APSC 4004+	Contemporary Issues in the Animal Sciences	3 ___
CRITICAL THINKING IN HUMANITIES (2)		
Approved Courses _____		3 ___ 3 ___
REASONING IN SOCIAL SCIENCES (3)		
AAEC 1005, 1006 or ECON 2005-2006	Economics of the Food and Fiber Systems or Principles of Economics	3 ___ 3 ___
REASONING IN NATURAL SCIENCES (4)		
BIOL 1105, 1106	Principles of Biology	3 ___ 3 ___
QUANTITATIVE AND COMPUTATIONAL THINKING (5)		
5F: MATH 1014 or #MATH 1025*	Precalculus with Transcendental Functions or Elementary Calculus	3 ___
5F: #STAT 2004	Introductory Statistics	3 ___
5A: #ALS 3104+	Animal Breeding and Genetics	3 ___
CRITIQUE AND PRACTICE IN DESIGN AND ARTS (6)		
Approved Courses _____		3 ___ 3 ___
CRITICAL ANALYSIS OF IDENTITY AND EQUITY IN THE UNITED STATES (7)		
Approved Course _____		3 ___
Subtotal		45

DEGREE CORE

Course & Number	Title	Credits
BIOL 1115, 1116	Principles of Biology Lab**	1 ___ 1 ___
#CHEM 1035-1036, #1045-1046	General Chemistry** and General Chemistry Lab**	3 ___ 3 ___ 1 ___ 1 ___
APSC 1454	Introduction to Animal and Poultry Science***	3 ___
#APSC 1464	Animal and Poultry Science Lab	1 ___
APSC 1504	APSC First Year Experience	1 ___
#APSC 2004	Animal and Poultry Sciences Seminar	1 ___
#ALS 2304	Comparative Animal Physiology and Anatomy	4 ___
#ALS 3204	Animal Nutrition and Feeding	3 ___
#ALS 3304	Physiology of Reproduction	3 ___
#APSC 3254 or #BIOL 2604	Animal Products or General Microbiology	3 ___
#APSC 4954	Capstone Experience**	2 ___
Choose one of the following courses:		
AAEC 2104, or #2434, or #3454, or #MGT 3304	Personal Financial Planning, Foundations of Ag. Bus., Small Business Mgt. & Entrepreneurship, or Mgt. Theory and Leadership Practice	3 ___
Subtotal		34

Graduation Requirements: In addition to Required Courses listed on the first page, each student must complete courses listed in one of the boxes on pages 4-6 to equal at least 120 credits, with a minimum overall GPA of 2.0000 and a minimum in-major GPA of 2.0000.

For purposes of GPA computation, courses included IN-MAJOR are courses listed in the DEGREE CORE on page 1, APSC 4004 and ALS 3104 in the Pathway to General Education on page 1, and designated (+) courses in all options on pages 4-6.

+These courses are included in the in-major GPA calculation; *MATH 1025 is the pre-requisite for PHYS 2205; ** These credits will NOT be included in the calculation of the in-major GPA; ***A grade of C or better is required.

#These courses have prerequisites and /or corequisites; please consult the University Course Catalog or check with your advisor.

An APSC degree may be earned in combination with the first year of work in an accredited medical, dental, or veterinary school, provided that the following requirements are met: at least two of the three years of pre-professional work, including the third year, are in residence at VT; and a minimum of 90 semester credits of undergraduate work that include all the courses listed above as Pathway to General Education and Degree Core, and at least 1 handling lab and 1 production course.

Progress Towards Degree Policy: Upon the completion of 72 credits, APSC students must have completed CHEM 1036 and 1046, APSC 1454 and 1464, and 6 credits from ALS 2304, 3104, or 3204; have a minimum overall GPA of 2.0; and have completed at least 24 credits that apply to the Pathway to General Education requirements.

Foreign Language Requirement: Two semesters of a single foreign language are required unless 2 units of a single foreign language are completed in high school. These credits do not count toward graduation requirements.

RESTRICTED AND FREE ELECTIVES

See the boxes on pages 4-6 for information on how many credits to choose from each Restricted Elective Category below.
 Courses used for Pathways 1-6, Degree Core, or Emphasis cannot be double counted as Restricted or Free Electives.
All restricted electives **must be taken on an A-F basis** unless offered P/F only.

**2964, 2974, 2984, 2994, 3954, 3964, 3984, 4964, 4974, 4984 and 4994 courses
 will be approved on a case-by-case basis.**

NOTE: Enrollment in specific courses listed on pages 2 and 3 is not guaranteed. Consult with your advisor when choosing restricted electives. Unless otherwise indicated, courses are 3 credits.

Agricultural/Applied Electives

ALCE 3XXX & higher		FIW 2XXX & higher	
ALS 2XXX & higher		FST 2XXX & higher	
APSC (including P/F)		GEOG 4XXX	
BSE 2XXX & higher		HNFE 1004	Foods, Nutrition & Exercise
CSES 2XXX & higher		HNFE 2XXX	
DASC 2XXX & higher		HORT 2XXX & higher	
ENT 2XXX & higher		PPWS 2XXX & higher	
#ENGL 3104 ¹	Professional Writing		

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>	<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Business Electives

AAEC 2104	Personal Financial Planning	CONS 2304	Consumer & Family Finances
#AAEC 2434	Foundations of Agribusiness	ECON 2XXX & higher	
AAEC 3XXX & higher		#ENGL 3774 ¹	Business Writing
ACIS 1504	Intro to Bus Analytics & BI	FIN 3XXX & higher	
ACIS 2XXX & higher		HTM 2XXX & higher	
AHRM 2404	Consumer Rights	IS 2XXX & higher	
APSC 3764	Lvsk. Merchandising - 2 cr	LDRS 1016	Exploring Citizen Leadership
#APSC 4554	Adv. Lvsk. Enterprise Mgt.	MGT 3XXX & higher	
BIT 2XXX & higher		MKTG 3XXX & higher	
COMM 2XXX & higher			

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>	<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Science Electives

#ALS 2404 (BIOL 2404)	Biotech in Global Soc	ENSC 3XXX	
#ALS 4554 (BIOL 4554)	Neurochemical Regulation	ENT 3XXX	
#ALS 4574 (BIOL 4574)	Social Behav. Birds & Mammals	ENT 4354 (BIOL 4354) -4 cr	Aquatic Entomology
#APSC 3064	Comp/Lab Animal Science	#ENGL 3764 ¹	Technical Writing
#APSC 3304	Embryology	#FIW 2314	Wildlife Biology
#APSC 4054 (BCHM 4054)	Genomics	FST 3XXX & higher	
#APSC 4224	Equine Exercise Physiology	HNFE 3XXX & higher	
#APSC 4304 (DASC 4304)	Bovine Repro. Practices -2 cr	MATH 1025 and higher	
#APSC 4514	Animal Growth and Development	#NEUR 2025-2026 (#APSC 2025-2026)	Intro. to Neuroscience
APSC 4994	Undergraduate Research	#NEUR 3044	Cell Mol. Neuroscience
BCHM 2XXX & higher (except 4074)		#NEUR 4044	Neuroscience Sr. Seminar
BIOL 2XXX & higher (except 2204 and 3404)		PHYS 2XXX & higher (except 2074, 2325, 2326)	
BMVS 4XXX & higher ²		PPWS 3XXX	
CHEM 2XXX & higher (except 4024)		PSYC 2074	Animal Behavior
#DASC 4374	Physiology of Lactation	STAT 3XXX & higher	
#DASC 4384	Mammary Immunology		

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

¹ Only one of the three may be used as Restricted Electives towards an APSC degree.

² BMVS 4054 will count as a free elective in the companion/lab animal emphasis

Free Electives

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

<u>Course</u>	<u>Cr.</u>	<u>Grade</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

PRODUCTION - BUSINESS OPTION

Course & No.	Title	Credits
<u>Required Emphasis Courses: choose one of the following four combinations</u>		
<u>Poultry</u>		
#APSC 2104+; #APSC 4404+; BMVS 4024	Poultry Lab; Commercial Poultry Enterprise Mgt. Diseases of Poultry	1 ____ 4 ____ 2 ____
OR		
<u>Livestock</u>		
#APSC 2114+; #APSC 3214 (FST 3214); #APSC 3224; #APSC 4414+ or #APSC 4444+	Livestock Mgt & Handling; and Principles of Meat Science; Meat Science Lab Beef/Sheep or Swine Production	1 ____ 3 ____ 1 ____ 4 ____ or 3 ____
OR		
<u>Equine</u>		
#APSC 2124+; APSC 2424; #APSC 4424+	Horse Mgt. Laboratory; Equine Industry; Horse Production	1 ____ 3 ____ 4 ____
OR		
<u>Companion/Lab</u>		
#APSC 2164+; #APSC 3064; #APSC 4464+	Comp. & Lab Anim. Care & Handling; Comp/Lab Anim. Science; Comp/Laboratory Anim. Health & Mgt	1 ____ 3 ____ 4 ____
+ Credits count in the in-major GPA		
<u>Additional Requirements (Restricted Electives) *:</u>		
Business Electives (Minimum 6 credits)		_____
CSES Electives (Min. 3 cr.; Livestock emphasis only)		_____
<u>Other Restricted Electives**:</u>		
Agricultural/Applied Electives		_____
Science Electives		_____
<u>Credits Still Needed</u>		
Business Electives		_____
CSES Electives (Livestock emphasis only)		_____
Agricultural/Applied or Business or Science electives		_____
Total Emphasis Credits		38***
*Choose from Business (and CSES) restricted electives listed on page 2.		
**Choose any restricted electives listed on pages 2 and 3.		
***At least 9 of the 38 credits must be 4XXX		
Free Electives:	Choose free electives to total ≥ 120 credits	_____
	Needed:	_____
Total Credits (minimum)		41

SCIENCE OPTION

Course & No.	Title	Credits
<u>Required Emphasis Courses: choose one of the following four combinations</u>		
<u>Poultry</u> #APSC 2104 ⁺ ; #APSC 4404 ⁺	Poultry Lab; Commercial Poultry Enterprise Mgt.	1 ___ 4 ___
OR		
<u>Livestock</u> #APSC 2114 ⁺ ; #APSC 4414 ⁺ or #APSC 4444 ⁺	Livestock Mgt & Handling; Beef/Sheep or Swine Production	1 ___ 4 ___ or 3 ___
OR		
<u>Equine</u> #APSC 2124 ⁺ ; APSC 2424; #APSC 4424 ⁺	Horse Mgt. Laboratory; Equine Industry; Horse Production	1 ___ 3 ___ 4 ___
OR		
<u>Companion/Lab</u> #APSC 2164 ⁺ ; #APSC 3064; #APSC 4464 ⁺	Comp. & Lab Anim. Care & Handling; Comp/Lab Anim. Science; Comp/Laboratory Anim. Health & Mgt	1 ___ 3 ___ 4 ___
+ Credits count in the in-major GPA		
<u>Additional Requirements (Restricted Electives)*:</u>		
Science Electives (Minimum 15 credits)		_____
<u>Other Restricted Electives**:</u>		
Agricultural/Applied Electives		_____
Business Electives		_____
<u>Credits Still Needed:</u>		
Science Electives		_____
Agricultural/Applied or Business or Science Electives		_____
Total Emphasis Credits		38***
*Choose any restricted science electives listed on page 3.		
**Choose any restricted electives listed on pages 2 and 3.		
***At least 9 of the 38 credits must be 4XXX		
Free Electives:	Choose free electives to total ≥ 120 credits	_____
	Needed:	_____
Total Credits (minimum)		41

PRE-VET OPTION

Course & No.	Title	Credits
<u>Required Emphasis Courses: choose one of the following four combinations</u>		
#APSC 2104+; #APSC 4404+	Poultry Lab; Commercial Poultry Enterprise Mgt.	1 ___ 4 ___
OR		
#APSC 2114+ #APSC 4414+ or #APSC 4444+	Livestock Mgt & Handling Beef/Sheep or Swine Production	1 ___ 4 ___ or 3 ___
OR		
#APSC 2124+; APSC 2424; #APSC 4424+	Horse Mgt. Laboratory; Equine Industry; Horse Production	1 ___ 3 ___ 4 ___
OR		
#APSC 2164+; #APSC 3064; #APSC 4464+	Comp. & Lab Anim. Care & Handling; Comp/Lab Anim. Science; Comp/Laboratory Anim. Health & Mgt	1 ___ 3 ___ 4 ___
+ Credits count in the in-major GPA		
<u>Additional Required Courses*:</u>		
#CHEM 2535 – 2536	Organic Chemistry	3 ___ 3 ___
#CHEM 2545 – 2546	Organic Chemistry Lab	1 ___ 1 ___
#PHYS 2205 – 2206	General Physics	3 ___ 3 ___
#PHYS 2215 – 2216	General Physics Lab	1 ___ 1 ___
#BCHM 2024, or #3114, or #4115	Concepts of Biochemistry or Biochemistry for Biotechnology & Life Sciences or General Biochemistry	3 ___ or 4 ___
<u>Recommended Course*:</u>		
#HNFE 2204	Medical Terminology	3 ___
<u>Restricted Electives**:</u>		
Science Electives		___
Agricultural/Applied Electives		___
Business Electives		___
<u>Credits Still Needed:</u>		
Agricultural/Applied or Business or Science Electives		___
Total Emphasis Credits		38***
*These courses fulfill the requirements for admission to many of the veterinary medical schools in the United States. Students are responsible for checking to be sure they meet the requirements for admission to specific veterinary schools.		
**Choose any restricted electives listed on pages 2 and 3.		
***At least 9 of the 38 credits must be 4XXX		
Free Electives:	Choose free electives to total ≥ 120 credits	___
	Needed:	___
Total Credits (minimum)		41