

**EL\_ANSC\_BS 120 Earned credits Total**      **Name:** \_\_\_\_\_ **ID:** \_\_\_\_\_ **Advisor:** \_\_\_\_\_

<b>I. GENERAL EDUCATION (total 40 credits GenEd)</b>			
	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
<b>Knowledge</b>			
A1. STEM			
A2. Social and Behavioral Sciences			
A3. Humanities			
A4. Arts and Design			
<b>Competencies</b>			
B1. Write effectively			
B2. Communicate effectively			
B3. Mathematical, statistical, computation			
B4. Information literacy			
<b>Responsibilities</b>			
C1. Civic knowledge & responsibility			
C2. Global responsibilities			
C3. Diversity and inclusion			
<b>Integrate &amp; Apply</b>			
D1. Ability to Synthesize			
<b>Grand Challenge</b>			
G. Grand Challenge Course			

*\*courses in other sections also fulfill GenEd requirement*

<b>IV. PROFESSIONAL CONCENTRATION (30 cr). Min GPA 2.0 req'd</b>			
<u>Course Description:</u>	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
<b>Foundation Course Requirements (5 cr):</b>			
Introduction to Animal Science (A1)*	AVS 101*		3
Intro. Animal Science Laboratory	AVS 102		1
Freshman Seminar AVS	AVS 110		1
<b>Concentration Course Requirements (22 cr):</b>			
Animal Management Techniques	AVS 304		3
Anatomy & Physiology	AVS 331		3
Anatomy & Physiology Lab	AVS 333		1
Animal Diseases	AVS 332		3
Behavior of Managed Animals	AVS 343		3
Animal Nutrition	AVS 412		3
Physiology of Reproduction (D1)*	AVS 472*		3
Principles of Cell Biology	BIO 341		3
<b>Additional concentration credits (3 cr; 300+ level course(s) in CELS):</b>			
Additional concentration course			
Additional concentration course			

<b>II. BASIC NON-SCIENCE REQUIREMENTS (9 cr)</b>			
<u>Course Description:</u>	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
Communication Fundamentals (B2)*	COM 100*		3
Wrt to Inform & Explain (WRT 104; B1, B4) or Intro to Research Wrt (WRT 106; B1, B4)*			3
Technical Writing (WRT 332) or Science Writing (WRT 334) (B1, B2)*			3

<b>V. SUPPORTING ELECTIVES^^ (9 cr):</b>			
<u>Course Description:</u>	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
Additional supporting elective course			
Additional supporting elective course			
Additional supporting elective course			
Additional supporting elective course			

<b>III. BASIC SCIENCE REQUIREMENTS (50 cr)</b>			
<u>Course Description:</u>	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
Principles of Biology I (A1)*	BIO 101*		3
Principles of Biology I Lab (A1)*	BIO 103*		1
Principles of Biology II (A1)*	BIO 102*		3
Principles of Biology II Lab (A1)*	BIO 104*		1
General Chemistry Lecture I (A1)*	CHM 101*		3
Laboratory for Chemistry 101 (A1)*	CHM 102*		1
General Chemistry Lecture II	CHM 112		3
Laboratory for Chemistry 112	CHM 114		1
Organic Chemistry Laboratory	CHM 226		2
Organic Chemistry I	CHM 227		3
Organic Chemistry II	CHM 228		3
Integrative Microbiology*	CMB 211*		4
Introductory Biochemistry	CMB 311		3
Calculus (A1, B3)*	MTH 131*		3
Physics I (A1, B3)*	PHY 111*		3
Physics I Lab (A1, B3)*	PHY 185*		1
Physics II (A1, B3)*	PHY 112*		3
Physics II Lab (A1, B3)*	PHY 186*		1
Introductory Statistics	STA 308		4
General Genetics	BIO 352		4

<b>VI. FREE ELECTIVES (Need 120 credits to graduate)</b>			
<u>Course Description:</u>	<u>Course No.</u>	<u>Grade</u>	<u>Cr.</u>
Planning for Academic Success	URI 101		1
Additional free elective course			
Additional free elective course			

**NOTES:**  
**NEED A TOTAL OF 120 CREDITS TO GRADUATE**  
*\*Courses that also count towards 40 credit GenEd requirement.*  
*The only GenEd courses left to take are those whose GenEd outcomes have not been met (Sec I) by any of the required courses.*  
 Maximum 9 cr total of AVS 399, 491, 492 can be counted towards degree  
 Maximum 3 cr total of AVS 491/492 can be counted as concentration course  
 Internship credits (AVS 399) cannot be counted as concentration credits  
 ^^Approved supporting electives include any course taught in **CELS** (AVS, AFS, BIO, BTC, CMB, EEC, GEG, GEO, LAR, MAF, MLS, NRS, PLS, SAF), the College of Business (INE, MKT) or the following prefixes: APG, CHM, CSC, ECN, MTH, OCG, PHY, STA  
 See page 2 for course suggestions

**B.S. Animal Science & Technology**  
**Effective Fall 2024**

<b>Animal Science &amp; Technology Courses</b>		
<b>Course Code</b>	<b>Course (Semester offered, credits)</b>	<b>GenEd Outcome</b>
AVS 101	Introduction to Animal Science (F, S, Su, J, 3 crs)	A1
AVS 102	Introduction to Animal Science Laboratory (F, S, 1 cr)	
AVS 110	Freshman Seminar in Animal and Veterinary Science (S, 1 cr)	
AVS 122X	Biology and Behavior of Sharks and Whales (F, 3crs)	
AVS 132G	Sustainable Agriculture, Food Systems, and Society (F, Su, J, 3 crs)	A2, G
AVS 201	Companion Animal Management (F, 3 crs)	
AVS 212	Feeds and Feedings (S, 3 crs)	
AVS 275	Pasture and Grazing Management in Sustainable Agriculture (F, Su, 4 crs)	
AVS 291	Laboratory Research Skills (F, 1 cr)	
<b>AVS300+ Courses qualify for the Concentration requirement if not otherwise required by option</b>		
AVS 300X	Winter Dairy Travel Course (J, 1 cr)	
AVS 301	Seminar in Animal and Veterinary Science (F, 1 cr)	
AVS 304	Advanced Animal Management Techniques (F, S, 3 crs)^	
AVS 323	Ruminant Livestock Management (F, 3 crs)	
AVS 324	Non-Ruminant Livestock Management (S, 3 crs)	
AVS 325	Exotic Pet Management (S, 3 crs)	
AVS 326	Equine Management (S, 3 crs)	
AVS 327	Zoo Animal Management (F, additional fee required, 3 crs)	
AVS 331	Anatomy and Physiology (F, 3 crs)	
AVS 332	Animal Diseases (S, Su, 3 crs)	
AVS 333	Anatomy and Physiology Laboratory (F, 1 cr)	
AVS 343	Behavior of Managed Animals (S, Su, 3 crs)	
AVS 372	Introductory Endocrinology (F, 3 crs)	
AVS 390	Wildlife and Human Disease (S, 3 crs)	
AVS 398	Practicum in Zoo and Aquarium Animal Science (F, S, 1 cr)	
AVS 399	Animal Science Internship (F, S, Su, 1-6 crs)	
AVS 400X	Advanced Small Farm Management (S, 4 crs)	
AVS 404	Food Systems, Sustainability and Health (F, 3 crs)	B4, D1
AVS 412	Animal Nutrition (F, 3 crs)^	
AVS 420	Animal Breeding & Genetics (S, 3 crs)	
AVS 427	Zoo and Aquarium Animal Welfare (S, 2 crs)	
AVS 440	Seminar on Marine Mammals (F, 3 crs)	
AVS 442	Physiology and Behavior of Marine Mammals (J, additional fee required, 3 crs)	
AVS 443	Advanced Methods in Applied Animal Behavior (S, 3 crs)	D1
AVS 462	Laboratory Animal Techniques (S, 4 crs)	
AVS 463	Animal Veterinary Technology (S, 3 crs)	
AVS 472	Physiology of Reproduction (S, 3 crs)^	D1
AVS 473	Physiology of Reproduction Lab (S, 1 cr)	
AVS 491	Special Projects (F, S, Su, 1-6 crs)	
AVS 503	Pathobiology (3 crs)^	
AVS 504	Food Systems, Sustainability and Health - graduate level (F, 3 crs)	
<b>Additional Concentration and Supporting Elective Courses</b>		
	Additional concentration courses include any 300 or 400 level course in CELS*	
	Additional supporting electives can be any course taught in CELS*, Business** or the following prefixes: APG, CHM, CSC, ECN, MTH, OCG, PHY, STA	
AFS 190	Issues in Biotechnology (F, S, online, 3 crs)	A1
BIO 341	Cell Biology (F, S, 3 crs)^	
BIO/CMB 352	General Genetics (F, S, Su, 4 crs)^	
ECN 201	Principles of Economics, Microeconomics	A2
EEC 105	Introduction to Resource Economics	A2
NRS 100	Natural Resource Conservation (F, S, 3 crs ,A1)	A1
NRS 223	Conservation Biology (S, 4 crs)	
SAF 123X	Sustainability for the Common Good (F, 3crs)	
SAFS 383	Food Justice (S, 3 crs)	A2, C3
SAFS 400G	Reimagining Food Systems Through Agroecology (F, 3 crs)	D1, G

\*CELS Courses include following prefixes: AFS, AVS, BIO, BTC, CMB, EEC, GEG, GEO, LAR, MAF, MLS, NRS, PLS, SAF

\*\*College of Business Courses include the following prefixes: INE, MKT

^Recommended courses for students interested in Graduate School, dependent upon area of interest

**B.S. Animal Science & Technology- Pre-Vet Option- Effective Fall 2024**

**Sample 4 Year Plan**

*College of the Environment and Life Sciences*

**Freshman Year Fall Semester**

Course Code	Description	Cr	
AVS 101,102	Introduction to Animal Science, Lab	4	
BIO 101,103	Principles of Biology I, Lab	4	
MTH 103/131	Pre-calculus or Calculus I	3	
	General Education Course	3	
URI 101	Planning for Academic Success	1	
		<b>15</b>	

**Freshman Year Spring Semester**

Course Code	Description	Cr	
AVS 110	AVS Freshman Seminar	1	
BIO 102,104	Principles of Biology II, Lab	4	
	General Education Course	3	
WRT 104 or 106	Writing Gen Ed (B4)	3	
MTH 131	Calculus I or Concentration	3	
	Concentration or Supporting Elective	3	
			<b>14-17</b>

**Year 1 Milestones:** Earn 30 credits and a GPA of 2.0 or higher. Meet with your Faculty Advisor for ANSC option discussion.

**Sophomore Year Fall Semester**

Course Code	Description	Cr	
AVS 331/333	Anatomy and Physiology Lecture & Lab	4	
CHM 101, 102	General Chemistry and Lab	4	
PHY 111, 185	Physics I and Lab	4	
	Supporting Elective	3	
		<b>15</b>	

**Sophomore Year Spring Semester**

Course Code	Description	Cr	
AVS 343	Behavior of Domestic Animals	3	
PHY 112, 186	Physics II and Lab	4	
WRT 332 or 334	WRT course	3	
CHM 112, 114	General Chemistry II and Lab	4	
	General Education Course	3	
			<b>17</b>

**Year 2 Milestones:** Earn 60 credits and a GPA of 2.0 or higher. Meet with your Faculty Advisor to discuss major and experiential learning opportunities.

**Junior Year Fall Semester**

Course Code	Description	Cr	
	Concentration or Supporting Elective	6	
CMB 211	Introductory Microbiology	4	
CHM 227	Organic Chemistry 1	3	
STA 308	Introductory Statistics	4	
		<b>14-17</b>	

**Junior Year Spring Semester**

Course Code	Description	Cr	
AVS 304	Animal Management Techniques	3	
CMB 311	Introductory Biochemistry	3	
CHM 228,226	Organic Chemistry 2, Lab	4	
COM 100	Communication Fundamentals	3	
AVS 332	Animal Diseases	3	
			<b>13-16</b>

**Year 3 Milestones:** Earn 90 credits and a GPA of 2.0 or higher. Meet with your Faculty Advisor to prepare intent to graduate application for fall submission.

**Senior Year Fall Semester**

Course Code	Description	Cr	
AVS 412	Animal Nutrition	3	
BIO 341	Cell Biology	3	
	Concentration or Supporting Electives	6	
	General Education or Free Electives	3	
		<b>15</b>	

**Senior Year Spring Semester**

Course Code	Description	Cr	
AVS 472	Physiology of Reproduction	3	
BIO/CMB 352	General Genetics	4	
	Concentration or Supporting Electives	6	
	General Education or Free Electives	3	
		<b>16</b>	

**Year 4 Milestones:** Earn 120 credits and a GPA of 2.0 or higher in CUM and CON. Complete all remaining required courses.

**Total Credits to Graduate = 120**

Effective Fall 2024

Name: \_\_\_\_\_

Major: \_\_\_\_\_

Student ID: \_\_\_\_\_

Subplan: \_\_\_\_\_

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

<b>Total Credits Earned:</b>			
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Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

Course Code	Description	Sem.	Cr

<b>Total Credits Remaining for Graduation:</b>			
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Please Note: A Sample 4 Year Plan for the Major can be found on the next page. The sample is to be used as a reference and guide however your 4 Year Plan is individual to you.

**B.S. Animal Science & Technology**

**Advising Notes**