B.S. Animal Science & Technology - Pre-Veterinary Option — Effective Fall 2021

EL_ANSC_BS **120 Earned credits Total** **Student/ID:**_____ **Advisor:** _____

I. GENERAL EDUCATION *(total 40 hr GenEd)*

	Course No.	Grade	Cr.
Knowledge			
A1. STEM	BIO 101		
A2. Social and Behavioral Sciences			
A3. Humanities			
A4. Arts and Design			
Competencies			
B1. Write effectively	WRT ____		
B2. Communicate effectively	COM 100		
B3. Mathematical, statistical, computation	MTH 131		
B4. Information literacy	WRT ____		
Responsibilities			
C1. Civic knowledge & responsibilitiy			
C2. Global responsibilities			
C3. Diversity and inclusion			
Integrate & Apply			
D1. Ability to Synthesize	AVS 472		
Grand Challenge			
G. Grand Challenge Course			

**courses in other sections also fulfill GenEd requirement*

II. BASIC NON-SCIENCE REQUIREMENTS (9 cr)

Course Description:	Course No.	Grade	Cr.
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

III. BASIC SCIENCE REQUIREMENTS (46 cr)

Course Description:	Course No.	Grade	Cr.
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

IV. PROFESSIONAL CONCENTRATION (31 cr). Minimum GPA 2.0 required.

Course Description:	Course No.	Grade	Cr.
Foundation Course Requirements (5 cr):			
Introduction to Animal Science (A1)*	AVS 101*		3
Intro. Animal Science Laboratory	AVS 102		1
Freshman Seminar AVS	AVS 110		1
Concentration Course Requirements (20 cr):			
Anatomy & Physiology	AVS 331		3
Anatomy & Physiology Lab	AVS 333		1
Animal Diseases	AVS 332		3
Animal Nutrition	AVS 412		3
Physiology of Reproduction (D1)*	AVS 472*		3
Principles of Cell Biology	BIO 341		3
General Genetics	BIO/CMB 352		4
Additional (6) concentration credits (300+):			
Additional concentration course			
Additional concentration course			
Additional concentration course			

V. SUPPORTING ELECTIVES (11 cr):

Course Description:	Course No.	Grade	Cr.
Advanced Animal Management Techniques	AVS 304		3
BUS or ECN			3
Additional supporting elective course			
Additional supporting elective course			
Additional supporting elective course			
Additional supporting elective course			

VI. FREE ELECTIVES (~2-5 credits. Need 120 credits to graduate)

Course Description:	Course No.	Grade	Cr.
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 (38 cr) 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 cannot counted as concentration credits

Approved supporting electives include any course taught in CELS, College of Business or with the prefix: APG, CHM, CSC, ECN/EEC, MTH, OCG, PHY, STA

See AVS Advising Sheet (page 2) for course suggestions for various focus areas

ADVISING NOTES:

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Examples of Approved Concentration Courses (300+)					
Course Code	GenEd outcome	Course (Semester offered, credits)	Focus Area		
			Livestock*	Exotic*	Pre-Vet and Technology*
AVS 301/302		Seminar in Animal and Veterinary Science (F/S, 1 cr)	X	X	X
AVS 304		Advanced Animal Management Techniques (F, S, 3 crs)^	X		X
AVS 323		Animal Management I (F, 3 crs)	X		
AVS 324		Animal Management II (S, 3 crs)	X		
AVS 325		Animal Management III (S, 3 crs)		X	
AVS 326		Equine Management (S, 3 crs)	X		
AVS 327		Zoo Animal Management (F, 3 crs)		X	
AVS 343		Behavior of Domestic Animals (S, Su, 3 crs)	X	X	X
AVS/ENT 390		Wildlife and Human Disease (S, 3 crs)		X	
AVS 399		Animal Science Internship (F,S, 1-6 crs)			
AVS 404	D1, B4	Food Systems, Sustainability and Health	X		
AVS 412		Animal Nutrition (F, 3 crs)^			
AVS 420		Animal Breeding & Genetics (S, 3 crs)	X		
AVS 440		Seminar on Marine Mammals (F, 3 crs)		X	
AVS 442		Marine Mammal Behavior and Physiology (J, additional fee)		X	X
AVS 443	D1	Advanced Methods in Applied Animal Behavior	X	X	X
AVS 462		Laboratory Animal Techniques (S, 4 crs)			X
AVS 463		Animal Veterinary Technology (S, 3 crs)			X
AVS 472	D1	Physiology of Reproduction (S, 3 crs)^	X		
AVS 473		Physiology of Reproduction Lab (S, 1 cr)	X		
AVS 491/492		Special Projects (F,S, 1-6 crs)			
AVS 504		Food Systems, Sustainability and Health - graduate level			
AFS 505		Pathobiology (S alternate years (even), 3 crs)^			X
BIO 341		Cell Biology (F, 3 crs)^			X
BIO/CMB 352		General Genetics (F, S, Su, 4 crs)^			X
BIO 437		Molecular Biology (S, 4 crs)^			X
CMB 333		Immunology and Serology (F, 3 crs)^			X
SAFS 400G	D1, G	Reimagining Food Systems Through Agroecology (F, 3 crs)	X		
		Any 300 or 400 level course in CELS			
Examples of Supporting Elective Courses That Complement Focus Areas (100+)					
		All of the above courses plus:			
AVS 132G	A2, G	Sustainable Agriculture, Food Systems and Society (S, 3 crs)	X	X	X
AFS 190	A1	Issues in Biotechnology (F, S, online, 3 crs)			X
AVS 201		Companion Animal Management (F, 3 crs)			X
AVS 250		Livestock Judging and Evluation (F, S, 2 crs)	X		
AVS 275		Pasture and Grazing Management (F, Su, 4 crs)	X		
BUS 140		Introduction to Business	X		
BUS 149		Introduction to Entrepreneurship	X		
ECN 201	A2	Principles of Economics, Microeconomics	X		
EEC 105	A2	Introduction to Resource Economics	X		
NRS 100	A1	Natural Resource Conservation (F, S, 3 crs ,A1)		X	
NRS 223		Conservation Biology (S, 4 crs)		X	
		Any Course in CELS, the College of Business or the following			
		departments: APG, CHM, CSC, ECN/EEC, MTH, OCG, PHY, STA			

*Suggested courses for each focus area

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

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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	
COM 100	COM Fundamentals	3	
URI 101	Planning for Academic Success	1	
		15	

Freshman Year Spring Semester

Course Code	Description	Cr	
AVS 110	AVS Freshman Seminar	1	
BIO 102,104	Principles of Biology II, Lab	4	
CHM 101, 102	General Chemistry and Lab	4	
WRT 104 OR 106	Writing Gen Ed (B4)	3	
MTH 131	Calculus I or Concentration	3	
		15	

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

Sophomore Year Fall Semester

Course Code	Description	Cr	
AVS 331/333	Anatomy and Physiology Lecture & Lab	4	
CHM 112, 114	General Chemistry II and Lab	4	
PHY 111, 185	Physics I and Lab	4	
	General Education Course	3	
	Supporting Elective	3	
		15-18	

Sophomore Year Spring Semester

Course Code	Description	Cr	
AVS 332	Animal Diseases	3	
PHY 112, 186	Physics II and Lab	4	
WRT 332 or 334	WRT course	3	
STA 308	Introductory Statistics	4	
	General Education Course	3	
		17	

Year 2 Milestones: Earn 60 credits and a GPA of 2.0 or higher. Meet with your Advisor to dicuss major and experential 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	
BUS or ECN		3	
		16	

Junior Year Spring Semester

Course Code	Description		
	Concentration or Supporting Elective	3-6	
CMB 311	Introductory Biochemistry	3	
CHM 228,226	Organic Chemistry 2, Lab	4	
	General Education Course	3	
		13-16	

Year 3 Milestones: Earn 90 credits and a GPA of 2.0 or higher. Meet with your 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	
		15	

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	
		16	

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

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