

## BS in Animal Science Pre-Vet Emphasis- Biotechnology Option

Name:	ID:	Term/Year of Program Entry:
Advisor(s) Name:		

Course & Credits	Term(s) Offered	LE Status	Term Completed/Grade
<b>Foundation Courses</b>			
ApEc 1101 Prin. Of Microeconomics (3)	F, S	SSci	
Biol 1009 General Biology (4)	F, S, SS	Biol	
Writ 1301 or Writ 1401 University Writing (4)	F, S		
Comm 1101 Intro. to Public Speaking (3)	F, S, SS		
Writ 3562W Tech. & Prof. Writing (4)	F, S, SS	WI (meets <i>both</i> upper level)	
Math 1142 (4) Short Calculus (4) or Math 1271 (4) Calculus I (4)	F, S, SS F, S, SS	Math Math	

<b>Professional Courses</b>			
AnSc 1001 Orientation to Animal Science (1)	F		
AnSc 1101 Introductory Animal Science (4)	S		
AnSc 2401 Animal Nutrition (3)	F		
AnSc 3011 Statistics for Animal Scientists (3)	S	Math	
AnSc 3221 Animal Breeding (4)	F		
AnSc 3301 Human & Animal Physiology Lec. (3)	F, S		
AnSc 3302 Human & Animal Physiology Lab (1)	F		
AnSc 4096 Professional Internship (3) or AnSc 4009W Undergrad Research Thesis (6)	F, S, SS F, S, SS		

### Required Coursework for Pre-Vet Students

**Students in the Pre-Vet Emphasis must select to follow either the Basic Science or Biotechnology Option. One semester of Calculus and Biol 4003 (Genetics) are required for the Biotechnology Option.**

Chem 1021 Chemistry Principles I (4)	F, S, SS	Phys, Evt	
Chem 1022 Chemistry Principles II (4)	F, S, SS	Phys, Evt	
Chem 2301 Organic Chemistry (3)	F, S, SS		
Chem 2302 Organic Chemistry Lec II (3) <i>This course is a prerequisite for enrollment in Chem 2311. Concurrent registration is allowed. Chem 2302 may be taken S/N grading*</i>	F, S, SS		
Chem 2311 Organic Chemistry Lab (4)	F, S, SS		
VBS 2032 General Microbiology w/ Lab (4)	F, S, SS		
BioC 3021 Biochemistry (3)	F, S		
Biol 4003 Genetics (3)	F, S		
Phys 1101W Introductory College Physics I (4) and Phys 1102W Introductory College Physics II (4) <b>OR</b> Phys 1201W Intro Physics: Pre-Med & Biol I (5) and Phys 1202W Intro Physics: Pre-Med & Biol II (5)	F, S, SS S F, S, SS F, S, SS	Phys, WI Phys, WI Phys, WI Phys, WI	

<b>Required courses for Biotechnology Option:</b>		
<b>Course &amp; Credits</b>	<b>Term Offered</b>	<b>Term Completed/Grade</b>
CFAN 1501 Biotech, People & the Environ. (3)	S	
AnSc 3509 Animal Biotechnology (3)	S	
<b>Choose 11 credits (2 credits must be a laboratory):</b>		
<b>Course &amp; Credits</b>	<b>Term(s) Offered</b>	<b>Term Completed/Grade</b>
AnSc 3511 Animal Growth & Development (3)	S	
AnSc 3305 Repro. Biol. In Health & Disease (4)	F	
Biol 4004 Cell Biology (3)	F, S	
BioC 4025 Laboratory in Biochemistry (2)	F, S	
BioC 4125 Lab: Molecular & Cellular Biology (3)	S	
BioC 5001BioC, Molecular & Cellular Biology (5)	F	
GCD 4015 Genetics Laboratory (2)	F	
GCD 4025 Cell Biology Lab (2)	S	
GCD 4034 Molecular Genetics (3)	S	
GCD 4143 Human Genetics (3)	S	
GCD 4151 Molecular Biology of Cancer (3)	F	
GCD 4161 Developmental Biology (3)	S	
GCD 5036 Molecular Cell Biology (3)	F	
MicB 3301 Biology of Microorganisms (5)	F, S	
MicB 4131 Immunology (3)	F, S	
MicB 4141W Bio. Genetics & Patho. Viruses (3)	S	
MicB 4151 Mol. & Genetic Micro. Diseases (3)	S	
MicB 4235 Virology, Immun. & Micro. Genetics (3)	S	

<b>Liberal Education Requirements-University Wide</b>		
<b>The following requirements are not automatically met by courses within the Pre-Vet/Biotech Emphasis in Animal Science. Students should consult the class schedule to find courses that satisfy the missing areas. Each course should be a minimum of three credits. It is allowed for one course to meet multiple areas.*</b>		
<b>Requirement</b>	<b>Course Title</b>	<b>Term Completed/Grade</b>
Social Science (SSci)		
Other Humanities (OH)		
Literature (Lit)		
Historical Perspectives (HP)		
Cultural Diversity (CD)		
International Perspective (IP)		
Citizenship & Public Ethics (C/PE)		

\*Be advised that some veterinary schools require two semesters of an Organic Chemistry lecture. If you intend to apply to one of these schools, you should take Chem 2302 A-F grading. See your advisor for additional information.

## Animal Science Elective Offerings

Please note that certain courses have prerequisites or require permission from the instructor prior to enrollment. Some courses are only taught every other semester listed. Please consult the online course guide or an advisor for the most updated list.

Course	Credits	Semester(s) Offered*	Title of Course
AnSc 1007	2	F	Horse in Your Backyard
AnSc 1011	3	F	Animals and Society
AnSc 1403	3	S	Companion Animal Nutrition & Care
AnSc 1511	3	F	Food Animal Products for Consumers
AnSc 2012	3	S	Livestock and Carcass Evaluation
AnSc 2055	2	F	Horse Health Management
AnSc 3007	3	S	Equine Nutrition
AnSc 3052	4	F	Equine Anatomy & Exercise Physiology
AnSc 3203W	3	S	Environ, Global Food Prod & Citizen
AnSc 3305	4	F	Repro Biology in Health & Disease
AnSc 3307	1	F, S	Artificial Insemination Techniques
AnSc 3501	3	S	Farm Animal Environment
AnSc 3509	3	S	Animal Biotechnology
AnSc 3511	3	S	Animal Growth and Development
AnSc 3521	3	F	Biotech. Appl. in Pharm. Res. & Development
AnSc 3609	2	F	Bus. Planning for Livestock Enterprises
AnSc 3801	3	S	Livestock Merchandising
AnSc 4011	3	S	Dairy Cattle Breeding
AnSc 4401	3	F	Swine Nutrition
AnSc 4403	3	S	Ruminant Nutrition
AnSc 4404	2	F	Applied Dairy Nutrition
AnSc 4601	4	S	Pork Production Systems Mgmt
AnSc 4602	4	S	Sheep Production Systems Mgmt
AnSc 4603	4	F	Beef Production Systems Mgmt
AnSc 4604	4	S	Dairy Production Systems Mgmt
AnSc 4611	2	S	Advanced Pork Prod Systems Mgmt
AnSc 4612	2	S	Tools for Dairy Consult. in the 21 <sup>st</sup> Century
AnSc 4613	2	F	Advanced Beef Prod Systems Mgmt
AnSc 4614	2	S	Advanced Dairy Prod Systems Mgmt
CFAN 1501	3	S	Biotechnology, People & the Environ
Ent 3281	4	F	Veterinary Entomology
VPM 3700	2	S	Equine Reproduction and Breeding Mgmt
VCS 4600	3	F	Small Animal and Equine Behavior
VCS 4606	3	S	Small Animal Management
Midwest Poultry Consortium Courses, Madison, WI	Varies (up to 18 available)	SS	Varies-see advisor for more information

\*F=Fall, S=Spring, SS=Summer

## Example Plan of Study Animal Science Pre-Vet Emphasis/*Biotech Option*

<b>Fall 1</b>			<b>Spring 1</b>		
		<b>Credits</b>			<b>Credits</b>
AnSc 1001	Orientation to Animal Science	1	AnSc 1101	Intro. to Animal Science	4
Math 1271	Calculus (placement by exam score required)	4	Chem 1021	Chemical Principles I	4
Chem 1015 or Chem 1021	Introductory Chemistry Chemical Principles I (placement by exam score required)	3 4	Or Chem 1022	Chemical Principles II	4
Writ 1301 or Writ 1401	University Writing (by placement) University Writing (by placement)	4 4	CFAN 1501	Biotech., People & the Environ.	3
Lib Ed Requirement or AnSc <i>Suggestions: AnSc 1011, 1007</i>		4-6	Lib Ed or AnSc <i>Suggestions: AnSc 1403, AnSc 2012</i>		3-6
		<b>16-18</b>			<b>14-17</b>
<b>Fall 2</b>			<b>Spring 2</b>		
		<b>Credits</b>			<b>Credits</b>
Chem 1022 or Biol 1009	Chemical Principles II General Biology	4 4	Biol 1009	General Biology	4
AnSc 2401	Animal Nutrition	3	Comm 1101	Intro. to Public Speaking	3
Lib Ed or AnSc <i>Suggestions: AnSc 1007, 1011, 2055, Comm 1011</i>		8-10	ApEc 1101	Principles of Microeconomics	3
		<b>15-17</b>	AnSc 3011	Stats. for Animal Scientists	3
			Lib Ed or AnSc		<b>3-4</b>
					<b>16-17</b>
<b>Fall 3</b>			<b>Spring 3</b>		
		<b>Credits</b>			<b>Credits</b>
Chem 2301	Organic Chemistry I	3	Chem 2302	Organic Chemistry II	3
AnSc 3221	Animal Breeding	4	Chem 2311	Organic Lab	4
Writ 3562W	Tech. & Prof. Writing	4	VBS 2032	General Microbiology w/ Lab	4
Biol 3021	Biochemistry	3	AnSc 3511 or other Biotech Option course or Lib Ed	Animal Growth & Development	4 3
Lib Ed		3			<b>18</b>
		<b>15-18</b>			
<b>Fall 4</b>			<b>Spring 4</b>		
		<b>Credits</b>			<b>Credits</b>
AnSc 3301 And AnSc 3302	Human & Animal Phys. Lec. Human & Animal Phys. Lab	3 1	Phys 1102	Introduction to College Physics II	4
Biol 4003	Genetics	3	AnSc 3509	Animal Biotechnology	3
Phys 1101	Introduction to College Physics I	4	Missing Lib Ed or Biotech Option Requirement		6-9
Missing Lib Ed or Biotech Option Requirement		3-4			<b>13-16</b>
		<b>13-14</b>			

*\*Internship: Students should be planning for internship(s) between their sophomore and junior year*