

Department of

# Agribusiness, Plant & Animal Sciences



## *Mel Dewsnup, Department Chair*

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## Department Description

The Department of Agribusiness, Plant & Animal Science prepares students for many exciting and challenging employment specialties, and offers a wide variety of course work in agriculture.

The close relationship between teachers and students creates a learning atmosphere that encourages the development of the finest students.

Students receive excellent training from case studies and practical "hands on" experience provided by work on the University farm, Livestock Center, internships, and practicum experience. Facilities include classrooms, laboratories, greenhouses, and a farm mechanics shop, University farm and livestock facilities used for faculty and student research.

All Agribusiness, Plant & Animal Sciences majors are exposed to on-the-job training through internships. A wide variety of locations and environments are available throughout the United States

and occasionally abroad. Most placements are paid positions.

The employment opportunities for students with a background in Agriculture are promising. Examples of career opportunities available in agriculture are specialists in crop consulting, plant and animal genetics, soil and water, environmental, GPS/GIS, machinery management, agronomy, farm and ranch management, finance, agricultural economics, real estate appraisal, education, food processing, animal health, marketing, food safety, range resource management, government agency workers and researchers, as well as many others.

## Department Degrees

### Bachelor of Science - Major in Agribusiness, Science & Technology

#### AgScience Emphasis (640-44)

Ag Science is the study of plants (field crops) and soils and their ecological interactions with the surrounding environment. Studies include the production of food and fiber (farming) in connection with the development of science technology for the betterment of mankind. Young minds will find substance in discovering the secrets for tomorrow's food production. Graduates will be prepared to enter the workforce or continue onto graduate programs.

#### Agribusiness Emphasis (640-45)

Agribusiness is designed to prepare a student for employment in a variety of fields, including business finance, marketing, international agriculture, agricultural marketing, policy formation, farm and ranch management, resource economics, rural development, bank, and real state appraisal.

#### Agriculture Systems (640-46)

Agriculture Systems is the study of technical principles and problems in agriculture industries. Agriculture is becoming more and more high tech, and the need for well prepared and knowledgeable agricultural technicians is expanding.

### Bachelor of Science - Major in Agriculture Education Composite (825)

Agricultural Education will prepare students for employment opportunities in teaching agriculture, as well as agribusiness occupations.

#### Associate Degree in Agriculture Management (344)

The A.A.S. Degree in Agriculture Management is offered for the student who plans to enter the work force immediately following the completion of their degree.

#### Minor in Agriculture Business, Science & Technology (102)

The Agriculture Business, Science & Technology minor is for those students not majoring in Agriculture Business, Science & Technology.

### Bachelor of Science - Major in Animal Science

#### Production Systems Emphasis (645-53)

Production Systems is designed for students who desire to work in animal production agriculture or associated animal agribusiness. Students in this emphasis will be taught animal anatomy and physiology, nutrition, reproduction, health, genetics, meat science, grazing, and the fundamentals of running an animal-based production business. Graduates will be prepared to enter the workforce or continue in graduate programs.

# Agribusiness, Plant and Animal Sciences

Brigham Young University-Idaho 2007-2008

## Range Science Emphasis (645-54)

Range Science is designed for students who are interested in the management of rangeland ecosystems and the livestock, wildlife and human interests that depend on them. Students in this emphasis will learn principles and skills that prepare them to be rangeland managers and stewards. Course work will focus on important facets from the disciplines of Animal Science, Botany, Ecology, Natural Resource Policy and Soil Science. The required course work qualifies students for Federal and State Range Science Registries.

## Associate Degree in Beef Production Management (347)

The A.A.S. Degree in Beef Production Management prepares students to apply practical management techniques as ranch managers. Skills in animal health, nutrition, reproduction, meat science, farming and the business aspects of cattle ranching are taught.

## Minor in Animal Science (140)

A minor in Animal Science is offered for those students not majoring in Animal Science.

344

## AAS in Agricultural Management

### Basic Education Requirements

I. Communication:	II. Computation:	III. Human Relations:	IV. Related Skills:	Religion Requirement:
<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take 4 credits:</i>
ENG 111            3	ACCTG 180       3	AGBUS 238       3	CIT 140            3	REL 121            2
ENG 111C        3	AGBUS 180       3	AMHER 170       3	COMM 102        3	REL 122            2
	MATH 101        3	ANTH 101        3	COMM 150        3	REL 221            4
	MATH 108        3	B 370              3	CS 144            3	<b>AND</b>
	MATH 110        3	CHILD 210       3	ENG 311           3	<i>Take 3 credits:</i>
	MATH 112        4	GEOG 120        3	ENG 311C        3	REL 100            2
	MATH 221        3	HIST 120        3	ENG 312           3	REL 130            2
		HIST 121        3	ENG 312C        3	REL 211            3
		HIST 201        3	ENG 313           3	REL 234            2
		HIST 202        3	ENG 314           3	REL 261            2
		POLSC 110       3	ENG 315           3	REL 264            2
		POLSC 170       3	ENG 315C        3	REL 301            3
		PSYCH 111       3	ENG 316           3	REL 301H          3
		PSYCH 201       3	ENG 316C        3	REL 302            3
		SOC 111          3	ENGRT 125       3	REL 302H          3
		SOC 112          3	SIGN 101          3	REL 324            3
		SOC 323          3		REL 333            2
		SOC 357          3		REL 341            2
				REL 342            3
				REL 351            2
				REL 352            2
				REL 370            2
				REL 431            2
				REL 471            3
				REL 475            2

**Total Basic Skills Credits=18**

### Major Requirements

*No Double Counting of Major Courses*

Take these courses:	Take 26 credits:	Program Notes:
AGBUS 100       0.5	AGRON 122       4	AGSYS 122       2
AGBUS 180       3	AGRON 260       2	AGSYS 124       2
AGBUS 238       3	AGRON 270       4	AGSYS 132       2
AGBUS 280       0.5	AGRON 297       2	AGSYS 201       4
AGBUS 398       1	AGRON 310       3	AGSYS 210       4
AGBUS 450       3	AGRON 321       3	AGSYS 230       2
AGRON 220       3	AGRON 325       3	AGSYS 240       3
AGRON 220L      1	AGRON 330       3	AGSYS 294       2
AGRON 286       2	AGRON 420       4	AGSYS 320       3
AGSYS 220       3	AGRON 425       3	AGSYS 335       4
20	AGRON 435       3	AGSYS 360       4
	AGRON 440       3	AGSYS 474       3
	AGRON 455       3	ME 105           4
		26

**Total Major Credits=46**

This major is available on the following tracks:

Fall-Winter---- YES

Winter-Summer---- YES

Summer-Fall---- YES

## AAS in Beef Production Management

### Basic Education Requirements

I. Communication:	II. Computation:	III. Human Relations:	IV. Related Skills:	Religion Requirement:
<i>Take 1 Course</i>	<i>Take 1 Course</i>	<i>Take 1 Course</i>	<i>Take 1 Course</i>	<i>Take 4 Credits</i>
ENG 111            3	ACCTG 180        3	AGBUS 238        3	CIT 140            3	REL 121            2
ENG 111C         3	AGBUS 180        3	AMHER 170        3		REL 122            2
	MATH 101         3	ANTH 101         3		REL 221            4
	MATH 108         3	B 370              3		<b>AND</b>
	MATH 110         3	CHILD 210        3		<i>Take 3 Credits</i>
	MATH 112         4	GEOG 120         3		REL 100            2
	MATH 221         3	HIST 120         3		REL 130            2
		HIST 121         3		REL 211            3
		HIST 201         3		REL 234            2
		HIST 202         3		REL 261            2
		POLSC 110        3		REL 264            2
		POLSC 170        3		REL 301            3
		PSYCH 111        3		REL 301H          3
		PSYCH 201        3		REL 302            3
		SOC 111           3		REL 302H          3
		SOC 112           3		REL 324            3
		SOC 323           3		REL 333            2
		SOC 357           3		REL 341            2
				REL 342            3
				REL 351            2
				REL 352            2
				REL 370            2
				REL 431            2
				REL 471            3
				REL 475            2

**Total Basic Skills Credits=18**

### Major Requirements

*No Double Counting of Major Courses*

Take these courses:		Take 1 course:	Program Notes:
AGBUS 180        3	AS 225            3	AS 247            2	
AGBUS 347        3	AS 315            3	AS 320            3	
AGRON 220        3	AS 315L          1	AS 325            3	
AGRON 220L      1	AS 330            2	AS 340            3	
AGRON 330        3	AS 333            3	AS 350            3	
AGSYS 220        3	AS 336            3	AS 425            3	
AS 100            1	AS 355            2	AS 430            4	
AS 215            3	AS 356            1	AS 455            3	
AS 215L          1	AS 360            3	AS466            3	
AS 220            3	45	AGBUS 450        3	
		2	
	<i>Take 2 credits:</i>		
	AS 498            1-4		
	2		

**Total Major Credits=49**

This major is available on the following tracks:

Fall-Winter---- YES

Winter-Summer---- YES

Summer-Fall---- YES



## BS in Agricultural Business, Science & Technology

### Agribusiness Emphasis

#### General Education Requirements

I. Reading and Writing:	IV. Arts:	VII. Letters:	VIII. Biological Science:	Religion Requirement:
<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take 4 credits:</i>	(Book of Mormon)
ENG 111            3	ART 101           3	CHIN 347          3	AGRON 122        4	<i>Take these courses:</i>
ENG 111C        3	ART 104           3	ENG 250           3	AGRON 270        4	REL 121            2
<b>AND</b>	ART 160           3	ENG 251           3		REL 122            2
<i>Take 1 course:</i>	ART 201           3	ENG 331           3		<b>OR</b>
ENG 315           3	ART 202           3	ENG 332           3	<b>IX. Physical Science:</b>	<i>Take this course:</i>
ENG 315C        3	DANCE 101       3	ENG 333           3	<i>Take 4 credits:</i>	REL 221            4
ENG 316           3	HFED 140        3	ENG 334           3	CHEM 101         4	<b>AND</b>
ENG 316C        3	HORT 230        3	ENG 335           3		(Scripture Based Courses)
	HUM 101           3	ENG 351           3		<i>Take 6 credits:</i>
	HUM 201           3	ENG 352           3		REL 211            3
	HUM 202           3	ENG 353           3		REL 212            2
<b>II. Mathematics:</b>	MUSIC 100       3	ENG 354           3		REL 301            3
<i>Take 1 course:</i>	MUSIC 101       3	ENG 362           3		REL 301H          3
MATH 108        3	TA 115            3	ENG 373           3		REL 302            3
MATH 110        3	TA 117            3	FR 202            3		REL 302H          3
MATH 111        2	<b>AND</b>	GER 202           3		REL 324            3
MATH 112        4	<i>Take this course:</i>	LANG 202         3		<b>AND</b>
MATH 113        3	FA 100            0-1	PH 314            3		(Other Religion Courses)
MATH 119        3		PHIL 110          3		<i>Take 4 credits:</i>
MATH 214        3	<b>V. American Institutions:</b>	PHIL 201          3		REL 100            2
MATH 221        3	<i>Take 1 course:</i>	PHIL 202          3		REL 130            2
MATH 306        3	ECON 111         3	PHIL 313          3		REL 215            2
		PHIL 314          3		REL 234            2
<b>III. Basic Skills:</b>	<b>VI. Social Science:</b>	PHIL 315          3		REL 235            2
<i>Take 1 course:</i>	<i>Take 1 course:</i>	RUSS 340         3		REL 261            2
CIT 140           3	ECON 112         3	SPAN 202         3		REL 264            2
	GEOG 120         3	SPAN 302         3		REL 333            2
	POLSC 110        3			REL 341            2
	POLSC 170        3			REL 342            3
	PSYCH 111        3			REL 351            2
				REL 352            2
				REL 360            4
				REL 370            2
				REL 431            2
				REL 471            3
				REL 475            2

**Total GE Credits=45**

#### Major Requirements

*No Double Counting of Major Courses*

<i>Take these courses:</i>	<i>Take these courses:</i>	<i>Program Notes:</i>
AGBUS 100       0.5	AGBUS 210        3	
AGBUS 180       3	AGBUS 232        3	
AGBUS 238       3	AGBUS 347        3	
AGBUS 280       0.5	AGBUS 410        3	
AGBUS 398       1	AGBUS 420        3	
AGBUS 450       3	AGBUS 430        3	
AGRON 220       3	B 275              3	
AGRON 220L     1	21	
AGRON 286       2		
AGRON 300       0.5		
AGRON 480       0.5		
AGSYS 220       3		
AGSYS 465       3		
24		

**Total Major Credits=45**

**This major also requires a minor or 2 clusters**

*This major is available on the following tracks:*

Fall-Winter---- YES Winter-Summer---- YES Summer-Fall---- YES

## BS in Agricultural Business, Science & Technology

### Ag Systems Emphasis

#### General Education Requirements

I. Reading and Writing:	IV. Arts:	VII. Letters:	VIII. Biological Science:	Religion Requirement:
<b>Take 1 course:</b> ENG 111            3 ENG 111C        3	<b>Take 1 course:</b> ART 101           3 ART 104           3 ART 160           3 ART 201           3 ART 202           3 DANCE 101       3 HFED 140         3 HORT 230         3 HUM 101           3 HUM 201           3 HUM 202           3 MUSIC 100        3 MUSIC 101        3 TA 115             3 TA 117             3	<b>Take 1 course:</b> CHIN 347          3 ENG 250           3 ENG 251           3 ENG 331           3 ENG 332           3 ENG 333           3 ENG 334           3 ENG 335           3 ENG 351           3 ENG 352           3 ENG 353           3 ENG 354           3 ENG 362           3 ENG 373           3 FR 202            3 GER 202           3 LANG 202         3 PH 314             3 PHIL 110           3 PHIL 201           3 PHIL 202           3 PHIL 313           3 PHIL 314           3 PHIL 315           3 RUSS 340          3 SPAN 202          3 SPAN 302          3	<b>Take 4 credits:</b> AGRON 122        4 AGRON 270        4	<b>Religion Requirement:</b> (Book of Mormon) <b>Take these courses:</b> REL 121           2 REL 122           2  <b>OR</b> <b>Take this course:</b> REL 221  <b>AND</b> (Scripture Based Courses) <b>Take 6 credits:</b> REL 211           3 REL 212           2 REL 301           3 REL 301H          3 REL 302           3 REL 302H          3 REL 324           3  <b>AND</b> (Other Religion Courses) <b>Take 4 credits:</b> REL 100           2 REL 130           2 REL 215           2 REL 234           2 REL 235           2 REL 261           2 REL 264           2 REL 333           2 REL 341           2 REL 342           3 REL 351           2 REL 352           2 REL 360           4 REL 370           2 REL 431           2 REL 471           3 REL 475           2
<b>AND</b> <b>Take 1 course:</b> ENG 315           3 ENG 315C         3 ENG 316           3 ENG 316C         3	<b>AND</b> <b>Take this course:</b> FA 100            0-1		<b>IX. Physical Science:</b> <b>Take 4 credits:</b> CHEM 101          4	
<b>II. Mathematics:</b> <b>Take 1 course:</b> MATH 108          3 MATH 110          3 MATH 111          2 MATH 112          4 MATH 113          3 MATH 119          3 MATH 214          3 MATH 221          3 MATH 306          3	<b>V. American Institutions:</b> <b>Take 1 course:</b> ECON 111          3			
<b>III. Basic Skills:</b> <b>Take 1 course:</b> CIT 140            3	<b>VI. Social Science:</b> <b>Take 1 course:</b> ECON 112          3 GEOG 120          3 POLSC 110         3 POLSC 170         3 PSYCH 111         3			
<b>Total GE Credits=45</b>				

#### Major Requirements

##### No Double Counting of Major Courses

Take these courses:	Take these courses:	Take 6 credits:	Program Notes:
AGBUS 100        0.5 AGBUS 180        3 AGBUS 238        3 AGBUS 280        0.5 AGBUS 398        1 AGBUS 450        3 AGRON 220        3 AGRON 220L      1 AGRON 286        2 AGRON 300        0.5 AGRON 480        0.5 AGSYS 220        3 <hr/> 21	AGSYS 122        2 AGSYS 124        2 AGSYS 320        3 AGSYS 335        4 AGSYS 360        4 AGSYS 474        3 <hr/> 18	ACCTG 180        3 ACCTG 201        3 AGBUS 210        3 AGBUS 347        3 AGBUS 410        3 AGBUS 420        3 AGBUS 430        3 AGBUS 450        3 AGBUS 498        1 AGRON 122        4 AGRON 260        2 AGRON 270        4 AGRON 297        2 AGRON 310        3 AGRON 321        3 AGRON 325        3 AGRON 330        3 AGRON 420        4 AGRON 425        3	AGRON 435        3 AGRON 440        3 AGRON 455        3 AGSYS 132        2 AGSYS 201        4 AGSYS 210        4 AGSYS 230        2 AGSYS 240        3 AGSYS 294        2 B 275             3 B 301             3 B 321             3 B 370             3 ECON 300         3 HORT 320         3 MATH 119         4 MATH 221         3 ME 105            4 <hr/> 6
<b>Total Major Credits=45</b>			
<b>This major also requires a minor or 2 clusters</b>			
This major is available on the following tracks:			
Fall-Winter---- YES	Winter-Summer---- YES	Summer-Fall---- YES	

**BS in Animal Science**  
**Animal Production Emphasis**

**General Education Requirements**

I. Reading and Writing:	V. Letters:	VI. BIOlogical Science:	IX. Social Science:	Religion Requirement:
<i>Take 1 course:</i>	<i>Take 1 course:</i>	<i>Take this course:</i>	<i>Take 1 course:</i>	(Book of Mormon)
ENG 111            3	CHIN 347           3	AGRON 270        4	ANTH 101           3	<i>Take 1 course:</i>
ENG 111C          3	ENG 250            3	<b>OR</b>	CHILD 210        3	REL 121            2
<b>AND</b>	ENG 250H         3	<i>Take this course:</i>	ECON 112         3	REL 122            2
<i>Take 1 course:</i>	ENG 251            3	BIO 208            4	ED 270             3	<b>OR</b>
ENG 311            3	ENG 331            3	<b>OR</b>	GEOG 120         3	<i>Take this course:</i>
ENG 311C          3	ENG 332            3	<i>Take these courses:</i>	HIST 201           3	REL 221            4
ENG 312            3	ENG 333            3	BIO 100            3	HIST 202           3	<b>AND</b>
ENG 312C          3	ENG 334            3	BIO 102            1	PHIL 203           3	(Scripture Based Courses)
ENG 316            3	ENG 335            3	<b>OR</b>	PHIL 204           3	<i>Take 6 credits:</i>
ENG 316C          3	ENG 351            3	<i>Take these courses:</i>	PHIL 204           3	REL 211            3
	ENG 352            3	BIO 221            3	POLSC 110        3	REL 212            2
	ENG 353            3	BIO 222            1	POLSC 170        3	REL 301            3
	ENG 354            3		PSYCH 111        3	REL 301H          3
	ENG 362            3	<b>VII. Physical Science:</b>	PSYCH 201        3	REL 302            3
<b>II. Mathematics:</b>	ENG 373            3	<i>Take 4 credits:</i>	SOC 111            3	REL 302H          3
<i>Take 1 course:</i>	FR 202             3	CHEM 105          4	SOC 112            3	REL 324            3
MATH 110          3	GER 202            3			<b>AND</b>
MATH 112          4	LANG 202          3	<b>VIII. American Institution</b>		(Other Religion Courses)
	PH 314             3	<i>Take 1 course:</i>		<i>Take 4 credits:</i>
<b>III. Basic Skills:</b>	PHIL 110           3	ECON 111          3		REL 100            2
<i>Take 1 course:</i>	PHIL 201           3			REL 130            2
CIT 140            3	PHIL 202           3			REL 215            2
COMM 102          3	PHIL 313           3			REL 234            2
COMM 150          3	PHIL 314           3			REL 235            2
CS 100             1	PHIL 315           3			REL 261            2
	RUSS 340           3			REL 264            2
<b>IV. Arts:</b>	SPAN 202          3			REL 333            2
<i>Take 1 course:</i>	SPAN 302          3			REL 341            2
ART 101            3				REL 342            3
ART 104            3				REL 351            2
ART 160            3				REL 352            2
ART 201            3				REL 360            4
ART 202            3				REL 370            2
DANCE 101        3				REL 431            2
HFED 140          3				REL 471            3
HORT 230          3				REL 475            2
HUM 101           3				
HUM 201           3				
HUM 202           3				
MUSIC 100        3				
MUSIC 101        3				
TA 115             3				
TA 117             3				
<b>AND</b>				
<i>Take this Course</i>				
FA 100            0-1				

**Total GE Credits=44**

**Major Requirements**

*No Double Counting of Major Courses*

Take these courses:	Take 4 credits:	Take 4 credits:	Program Notes:
AgBus 450          3	AS 498R            1-4	AS 247              2	
AS 100             1	4	AS 248              2	
AS 150             3		AS 320              2	
AS 215             3	<i>Take these courses:</i>	AS 325              3	
AS 215L            1	AS 355              2	AS 330              2	
AS 220             3	AS 356              1	AS 340              3	
AS 225             3	3	AS 347              2	
AS 315             3		AS 350              3	
AS 315L            1	<i>Take 1 course:</i>	AS 360              3	
AS 333             3	AS 340              3	AS 430              4	
AS 336             3	AS 350              3	AS 455              3	
AS 425             3	AS 360              3	AS 466              3	
AS 499             1	3	AS 490              1-3	
31		4	

**Total Major Credits=45**

**This major also requires a minor or 2 clusters**

This major is available on the following tracks:

Fall-Winter--- YES

Winter-Summer--- YES

Summer-Fall--- YES

## BS in Animal Science Range Science Emphasis

### General Education Requirements

I. Reading and Writing:	IV. Arts:	V. Letters:	VI. Biological Science:	Religion Requirement:
<b>Take 1 course</b>	<b>Take 1 course</b>	<b>Take 1 course</b>	<b>Take this course</b>	(Book of Mormon)
ENG 111            3	ART 101           3	CHIN 347          3	BIO 208            4	<b>Take these courses:</b>
ENG 111C          3	ART 104           3	ENG 250           3		REL 121            2
<b>AND</b>	ART 160           3	ENG 251           3	<b>VII. Physical Science:</b>	REL 122            2
<b>Take 1 course</b>	ART 201           3	ENG 331           3	<b>Take 4 credits</b>	<b>OR</b>
ENG 311           3	ART 202           3	ENG 332           3	CHEM 105          4	<b>Take this course</b>
ENG 311C          3	DANCE 101       3	ENG 333           3		REL 221            4
ENG 312           3	HFED 140        3	ENG 334           3	<b>VIII. American Institution</b>	<b>AND</b>
ENG 312C          3	HORT 230        3	ENG 335           3	<b>Take 1 course</b>	(Scripture Based Courses)
ENG 316           3	HUM 101          3	ENG 351           3	ECON 111           3	<b>Take 6 credits</b>
ENG 316C          3	HUM 201          3	ENG 352           3		REL 211            3
	HUM 202          3	ENG 353           3	<b>IX. Social Science:</b>	REL 212            2
	MUSIC 100       3	ENG 354           3	<b>Take 1 course</b>	REL 301            3
	MUSIC 101       3	ENG 362           3	ANTH 101           3	REL 301H           3
<b>II. Mathematics:</b>	TA 115            3	ENG 373           3	CHILD 210          3	REL 302            3
<b>Take 1 course</b>	TA 117            3	FR 202            3	ECON 112           3	REL 302H           3
MATH 110          3	<b>AND</b>	GER 202           3	ED 270            3	REL 324            3
MATH 112          4	<b>Take this course</b>	LANG 202          3	GEOG 120           3	<b>AND</b>
	FA 100            0-1	PH 314            3	HIST 201            3	(Other Religion Courses)
<b>III. Basic Skills:</b>		PHIL 110          3	HIST 202            3	<b>Take 4 credits</b>
<b>Take 1 Course</b>		PHIL 201          3	PHIL 203           3	REL 100            2
CIT 140            3		PHIL 202          3	PHIL 204           3	REL 130            2
COMM 102          3		PHIL 313          3	POLSC 110          3	REL 215            2
COMM 150          3		PHIL 314          3	POLSC 170          3	REL 234            2
CS 100            1		PHIL 315          3	PSYCH 111          3	REL 235            2
		RUSS 340          3	PSYCH 201          3	REL 261            2
		SPAN 202          3	SOC 111            3	REL 264            2
		SPAN 302          3	SOC 112            3	REL 264            2
				REL 333            2
				REL 341            2
				REL 342            3
				REL 351            2
				REL 352            2
				REL 360            4
				REL 370            2
				REL 431            2
				REL 431            2
				REL 471            3
				REL 475            2

**Total GE Credits=44**

### Major Requirements

#### No Double Counting of Major Courses

Take these courses:	Take a minimum of 1 credit:	To qualify for the Federal Register in Range Science, Minor in Biology Natural Resources (141) using the following courses:	Program Notes:
AGBUS 450          3	AS 498R           1-4		
AS 100            1	1		
AS 150            3			
AS 215            3	<b>Take these courses:</b>		
AS 215L           1	AGRON 220        3	BIO 210            3	
AS 220            3	AGRON 220L      1	BIO 302            4	
AS 225            3	AS 325            3	BIO 351            3	
AS 315            3	AS 455            3	BIO 352            3	
AS 315L           1	AS 466            3	BIO 362            3	
AS 333            3	13	BIO 423            3	
AS 336            3		GEOG 230          3	
AS 425            3	<b>Suggested elective credit</b>	22	
AS 499            1	CHEM 150          5		
31	AS 498R           1-4		

**Total Major Credits=45**

**This major also requires a minor or 2 clusters**

This major is available on the following tracks:

Fall-Winter---- YES

Winter-Summer---- YES

Summer-Fall---- YES

## BS in Agriculture Education Composite

### General Education Requirements

I. Reading and Writing:	III. Basic Skills:	V. Letters:	VI. Biological Science:	Religion Requirement:
<b>Take 1 course:</b>	<b>Take 1 course:</b>	<b>Take 1 course:</b>	<b>Take 4 credits:</b>	(Book of Mormon)
ENG 111           3	CIT 140           3	CHIN 347         3	AGRON 122       4	<b>Take these courses:</b>
ENG 111C        3		ENG 250         3	AGRON 270       4	REL 121           2
	<b>IV. Arts:</b>	ENG 251         3		REL 122           2
<b>AND</b>	<b>Take 1 course:</b>	ENG 331         3	<b>VII. Physical Science:</b>	<b>OR</b>
<b>Take 1 course:</b>	ART 101           3	ENG 332         3	<b>Take 4 credits:</b>	<b>Take this course:</b>
ENG 315           3	ART 104           3	ENG 333         3	CHEM 101         4	REL 221           4
ENG 315C         3	ART 160           3	ENG 334         3		<b>AND</b>
ENG 316           3	ART 201           3	ENG 335         3	<b>VIII. American Institution</b>	(Scripture Based Courses)
ENG 316C         3	ART 202           3	ENG 351         3	<b>Take 1 course:</b>	<b>Take 6 credits:</b>
	DANCE 101        3	ENG 352         3	ECON 111          3	REL 211           3
<b>II. Mathematics:</b>	HFED 140          3	ENG 353         3		REL 212           2
<b>Take 1 course:</b>	HORT 230          3	ENG 354         3	<b>IX. Social Science:</b>	REL 301           3
MATH 108         3	HUM 101           3	ENG 362         3	<b>Take 1 course:</b>	REL 301H          3
MATH 110         3	HUM 201           3	ENG 373         3	ED 270             3	REL 302           3
MATH 111         2	HUM 202           3	FR 202           3		REL 302H          3
MATH 112         4	MUSIC 100         3	GER 202          3		REL 324           3
MATH 113         3	MUSIC 101         3	LANG 202         3		<b>AND</b>
MATH 119         3	TA 115             3	PH 314            3		(Other Religion Courses)
MATH 214         3	TA 117             3	PHIL 110          3		<b>Take 4 credits:</b>
MATH 221         3	<b>AND</b>	PHIL 201          3		REL 100           2
MATH 306         3	<b>Take this course:</b>	PHIL 202          3		REL 130           2
	FA 100             0-1	PHIL 313          3		REL 215           2
		PHIL 314          3		REL 234           2
		PHIL 315          3		REL 235           2
		RUSS 340          3		REL 261           2
		SPAN 202          3		REL 264           2
		SPAN 302          3		REL 333           2
				REL 341           2
				REL 342           3
				REL 351           2
				REL 352           2
				REL 360           4
				REL 370           2
				REL 431           2
				REL 471           3
				REL 475           2

**Total GE Credits=45**

### Major Requirements

#### No Double Counting of Major Courses

Education Core:	Take these courses:	Take 1 course:	Take 4 credits:
<b>Take these courses:</b>	AGBUS 180       3	AGED 380         3	AGBUS 210        3
ED 200            2	AGED 358         2	HFED 380         3	AGBUS 238        3
ED 492           12	AGED 450         3		AGBUS 347        3
SECED 410        3	AGED 452         3		AGBUS 410        3
SPED 322         2	AGRON 220        3		AGBUS 420        3
19	AGRON 220L      1		AGBUS 430        3
	AGRON 297        2		AGBUS 450        3
	AGSYS 122        2		AGRON 260        2
	AGSYS 220        3		AGRON 270        4
	AS 150            3		AGRON 286        2
	AS 220            3		AGRON 310        3
	HORT 320          3		AGRON 321        3
	HORT 334          3		AGRON 325        3
	ME 105            4		AGRON 330        3
	38		AGRON 420        4
			AGRON 425        3
			AGRON 435        3
			AGRON 440        3
			AGRON 455        3
			AGSYS 124        2
			AGSYS 132        2
			AGSYS 201        4
			AGSYS 210        4
			AGSYS 230        2
			AGSYS 240        3
			AGSYS 294        2
			AGSYS 320        3
			AGSYS 335        4
			AGSYS 360        4
			AGSYS 474        3
			4

**Total Major Credits=45**

**Education Core Credits=19**

available on the following tracks:

Fall-Winter---- YES

Winter-Summer---- YES

Summer-Fall---- YES

<b>Minor in Agricultural Business, Science and Technology</b>			
102			
<b>Minor Requirements</b>			
<i>Take these courses:</i>	<i>Take 15 credits:</i>	<i>Program Notes:</i>	
AGBUS 100      0.5	AGBUS 210      3		
AGBUS 180      3	AGBUS 347      3		
AGRON 220      3	AGRON 122      4		
AGRON 220L      1	AGRON 310      3		
AGSYS 220      3	AGRON 321      3		
10.5	AGRON 330      3		
	AGRON 435      3		
	AGRON 455      3		
	AGSYS 335      4		
	AGSYS 360      4		
	15		
<b>Total Minor Credits=25.5</b>			
<i>This minor is available on the following tracks:</i>			
Fall-Winter---- YES	Winter-Summer---- YES		Summer-Fall---- YES

<b>Minor in Animal Science</b>		
140		
<b>Minor Requirements</b>		
<i>Take these courses:</i>	<i>Take 6 credits:</i>	<i>Program Notes:</i>
AS 150      3	AS 215      3	
AS 220      3	AS 215L      1	
AS 225      3	AS 247      2	
AS 315      3	AS 248      2	
AS 315L      1	AS 320      2	
AS 336      3	AS 325      3	
AS 355      2	AS 330      2	
AS 356      1	AS 333      3	
19	AS 340      3	
	AS 347      2	
	AS 350      3	
	AS 360      3	
	AS 430      4	
	AS 490      1-3	
	6	
<b>Total Minor Credits=25</b>		
<i>This minor is available on the following tracks:</i>		
Fall-Winter---- YES	Winter-Summer---- YES	Summer-Fall---- YES

**Course Descriptions**

**Credits\***

**AGBUS 100 Freshman Agricultural Orientation**

**(0.5:1:0)**

Fee: \$25.00

Provides an orientation in making decisions concerning careers in the broad field of Agribusiness. This career search will involve a self-assessment of talents, interests, abilities, needs, and resources in order to better identify possible career alternatives. (Fall)

**AGBUS 180 Agricultural Accounting**

**(3:3:1)**

Introductory course in accounting with an Agribusiness perspective, using double entry concept. Composition of balance sheets, income statements, journals and payroll; Computer accounting applications. (Fall, Winter, Summer)

**AGBUS 200 Agricultural Spanish**

**(3:3:0)**

This course has been designed to provide students with the ability to communicate with Spanish speakers on a basic level, with emphasis on farm and ag-related issues. No previous Spanish experience is required. (Winter)

**AGBUS 210 Agricultural Economics**

**(3:3:0)**

Prerequisite: Sophomore standing and math background.

A systematic introduction to basic economic concepts and issues as they relate to the agribusiness sector in the U.S. economy. (Winter, Summer)

**AGBUS 232 Agricultural Sales and Merchandising**

**(3:2:2)**

The retail sales and merchandising of agricultural products. (Fills human relations requirement for Landscape Horticulture Management and Floral Design Majors.) (Fall)

**AGBUS 238 Agribusiness Leadership**

**(3:3:0)**

Fee: \$25.00

Provides opportunities to develop leadership and increase occupational competency. (Fall and Winter)

# Agribusiness, Plant and Animal Sciences

Brigham Young University-Idaho 2007-2008

<b>AGBUS 280 Sophomore Agricultural Orientation</b> (0.5:1:0) Fee: \$25.00 A study of successful business and living practices. The study of occupational opportunities and the process of becoming involved within those occupations. Preparation for internships. (Fall)	<b>AGED 450 Curriculum Development in Occupational Education</b> (3:3:0) This course addresses adult learning in professional-technical education and focuses on the combination of occupational analysis and course construction in professional-technical curriculum development in agriculture and its related fields. (Winter)
<b>AGBUS 347 Agricultural Marketing</b> (3:3:1) Fee: \$10.00 Fundamental marketing principles applied to agricultural marketing. (Fall)	<b>AGED 452 Methods of Teaching Agriculture</b> (3:3:0) Competence in teaching methods, along with competence in the technical subject matter is essential to be effective as a teacher of agriculture. (Fall)
<b>AGBUS 398 Occupational Internship</b> (1:0:0) Prerequisite: Consent of Instructor. The internship is a four to twelve week occupational experience in the agricultural industry after the Freshman year or Sophomore year. (Fall, Winter, Summer)	<b>AGRON 115 Feeding the World</b> (3:3:0) Insight into world populations, world food production, and an understanding of the need to educate those throughout the world, so that they might have the opportunity to become self-sufficient.
<b>AGBUS 410 Agricultural Policy and Trade</b> (3:3:0) Prerequisite: Junior standing or consent of Instructor. An advanced course in the study of policy formulation, government actions, societal and environmental issues, and programs that influence the agricultural sectors of production, marketing, and finances. (Winter)	<b>AGRON 122 Introduction to Plant Science</b> (4:3:1) Fulfills GE Biological Science requirement. This course covers the basic principles of structure, form and function of plants in both the higher and lower plant kingdoms. (Fall, Winter, Summer)
<b>AGBUS 420 Agribusiness Operations Analysis</b> (3:3:2) Fee: \$20.00 Prerequisite: Senior standing, a statistics course, or consent of Instructor. Principles and procedures in the analysis and research of agricultural business operations. (Fall, Summer)	<b>AGRON 220 Introduction to Soils</b> (3:3:0) A basic course dealing with the formation of soils as well as the physical, chemical and biological properties of soils. (Fall, Winter, Summer)
<b>AGBUS 430 Agricultural Price Analysis</b> (3:3:2) Prerequisite: Senior standing, a statistics course, or consent of Instructor. Application of statistical tools for price analysis. Emphasis on price making process for specific agricultural commodities. (Fall)	<b>AGRON 220L Introduction to Soils Lab</b> (1:0:2) Hands on experience determining soil texture, structure, color, measuring soil pH, nitrates, and fertilizers. (Fall, Winter, Summer)
<b>AGBUS 450 Agricultural Business Management</b> (3:3:0) Application of approved practices, concepts, principles and tools of management in an agricultural business. (Fall, Winter, Summer)	<b>AGRON 260 Commercial Pesticide Application</b> (2:2:0) Preparation to obtain a commercial applicator's license for a wide variety of herbicide, insecticide and fungicide and industry applications. (Winter)
<b>AGBUS 498 Occupational Internship II</b> (1:0:0) Prerequisite: Consent of instructor. Four to twelve week occupational experience in an agricultural related industry. The internship is structured and supervised to insure a variety of experiences pertaining to the agricultural industry. (Fall, Winter, Summer)	<b>AGRON 270 Agro-Ecology</b> (4:3:2) Fulfills GE Biological Science requirement. Fee: \$15.00 Impact of humans on natural ecosystems, as well as the shift from primitive agriculture to modern technological sustainable agriculture and the effects of this change on human social and economic activities. (Fall, Winter, Summer)
<b>AGED 358 Supervising FFA and SAE Programs</b> (2:2:0) FFA and SAE programs help establish leadership, personal development and work habit skills. This class will introduce and practice these skills. (Winter)	<b>AGRON 286 Introduction to Precision Agriculture</b> (2:2:2) A fundamental field class in precision agriculture, using global satellite positioning, satellite GPS, and GIS mapping, along with agronomic technologies to quantify limiting factors to crop yields. (Winter, Summer)
<b>AGED 380 Connecting Education &amp; Employment</b> (3:3:0) Prepares future Agricultural educators to teach school and career options to secondary students who desire a career in agriculture or related field of endeavor. (Winter)	<b>AGRON 297 Agricultural Practicum</b> (2:0:0) Development and improvement of selected occupational competencies. (Fall, Winter)
	<b>AGRON 300 Junior Agricultural Seminar</b> (0.5:1:0) Fee: \$25.00 This class will help ensure students they are on track for graduation with a review of student grad reports and internship experiences. (Fall)
	<b>AGRON 310 Tree Fruit and Vegetable Management</b> (3:3:2) Shows the importance of fruit and vegetable crops in U.S. agriculture, and their contribution to the national economy and the human diet. (Fall)

# Agribusiness, Plant and Animal Sciences

Brigham Young University-Idaho 2007-2008

<b>AGRON 321 Soil Fertility and Plant Nutrition</b> (3:2:2) Field identification and measurement of plant nutrient deficiencies, petiole analysis and crop fertilization methods. (Fall)	<b>AGSYS 125 Agricultural Maintenance Welding</b> (3:2:2) Fee: \$20.00 An overview in the use of electric arc and oxy acetylene welding equipment with an emphasis upon maintenance welding as it pertains to farm and ranch applications.
<b>AGRON 325 Irrigation and Drainage</b> (3:3:2) Fee: \$15.00 Principles and application of soil, water and plant relations, agricultural meteorology, and irrigation. (Fall)	<b>AGSYS 132 Climate Control</b> (2:2:2) Climate control system theory, diagnosis, and repair of agricultural systems.
<b>AGRON 330 Forage Crops</b> (3:3:0) Fee: \$15.00 A composite study of an important field of agronomy, forage and cereal crops used in the livestock industry. Applied production principles and management requirements will be emphasized for each crop. (Fall, Winter)	<b>AGSYS 201 Major Engine Overhaul</b> (4:3:6) Fee: \$10.00 Engine theory and procedures of complete engine overhaul and rebuilding. Major problem diagnosis and testing.
<b>AGRON 420 Crop Protection</b> (4:3:2) Identification; cultural, chemical, and/or biological control; pesticide safety, legal implications and herbicide selectivity for the major weeds, insects and diseases. (Fall)	<b>AGSYS 210 Power Trains</b> (4:3:6) Power trains problem diagnosis and repair.
<b>AGRON 425 Soil Management</b> (3:3:1) Prerequisite: Agron 220 and Agron 220L, Chem 101 or higher; Math 108 or higher. The science and application of soil chemistry, physics, and microbiology to better manage soils for improving environmental quality and agricultural suitability. (Fall, Summer)	<b>AGSYS 220 Equipment Operations and Maintenance</b> (3:3:3) Fee: \$10.00 Operation, selection, adjustment and care of tractors, backhoes, swather, combines and other equipment used in agriculture production, and small construction. An overview of preventive maintenance and care of equipment, intake and exhaust systems, fuel systems, lubrication systems, cooling systems, electrical maintenance, tune up, storage, and trouble shooting. (Fall, Winter, Summer)
<b>AGRON 435 Potato Science</b> (3:3:2) Fee: \$15.00 Basic understanding and practical application of potato production. Become more knowledgeable of potato management. (Winter)	<b>AGSYS 230 Agriculture Electrification-AC</b> (2:1:3) Principles, systems and applications of electrical energy in agriculture. (Fall even years)
<b>AGRON 440 Crop Physiology</b> (3:3:1) Prerequisite: Agron 220 and Agron 220L, Chem 101 or higher; Math 108 or higher. The science and application of crop science and physiology. This class will apply cellular and biochemical analysis of plant physiology to the more applied aspects of plant growth specifically agricultural crops. (Winter)	<b>AGSYS 240 Agricultural Structures</b> (3:3:3) Principles and methods of planning and constructing structures for housing, service, or storage. (Fall, Summer)
<b>AGRON 455 Cereal Science</b> (3:3:0) Fee: \$15.00 Crops history and biology of major cereal crops. Class will cover both warm and cool season cereal crops. Introduction of principles involved in cereal chemistry, development and processing. (Fall, Winter)	<b>AGSYS 290 Individual Study</b> (2:0:0) Independent study, special assignment and/or advanced inquiry in an area of special interest, approved after consultation with instructor in charge. (Fall, Winter, Summer)
<b>AGRON 480 Senior Agricultural Seminar</b> (0.5:1:0) Fee: \$25.00 This class will help student search for employment or apply for Grad School depending on current needs. (Fall)	<b>AGSYS 294 Agricultural Fabrication</b> (2:1:3) Fee: \$10.00 Creative practical experience in developing, planning and building projects used on farm or ranch enterprises. (Winter odd years)
<b>AGSYS 122 Small Engines</b> (2:2:2) Fee: \$10.00 Selection, adjustment, and care of small engines. Small engine theory and procedures for complete small engine overhaul. (Fall, Winter, Summer)	<b>AGSYS 320 Agricultural Machinery</b> (3:2:4) Fee: \$10.00 Selection, servicing, maintenance, operation, testing, repair, use and general management of agricultural equipment. (Winter)
<b>AGSYS 124 Compact Equipment</b> (2:1:5) Test and repair procedures for engines, electrical, power trains and hydraulics found on compact equipment. (Fall, Winter)	<b>AGSYS 335 Electronic Systems Diagnostic and Repair</b> (4:4:2) Basic electricity in farm power electrical circuits, with emphasis in starting systems, charging systems, lighting systems and accessory systems. Advanced electronics used in farm power: fuel injection systems, monitors and controllers. (Fall even years)
	<b>AGSYS 360 Agricultural Hydraulics</b> (4:4:2) A study of the fundamental and advanced principles governing and regulating the transmission and control of fluid power hydraulics. Trouble shooting and system repairs. (Fall odd years)

**AGSYS 465 Machinery Management (3:3:1)**  
 A study of machinery efficiency, matching machines, and horse-power. Analyzing and estimating costs associated with keeping machines running.  
 (Fall, Winter)

**AGSYS 474 Agricultural Machinery Systems Analysis (3:3:2)**  
 Testing and diagnosis for various pieces of equipment related to agriculture systems pertaining to the production of food.  
 (Winter even years)

**AS 100 Animal Science Orientation (1:1:0)**  
 An orientation to university life, techniques used by successful students, explanation of animal science department offerings and expectations, as well as career exploration in the evolving world of animal science  
 (Fall, Winter)

**AS 145 Trailriding (1:0:2)**  
 Fee: \$100.00  
 Prerequisite: AS 140 or an equivalent amount of riding experience/consent of instructor  
 This course is designed to help those who have had some experience riding horses expand on those experiences by learning first hand appropriate trail etiquette, proper trailer techniques, appropriate tack, and how to enjoy many of the beautiful sights and sounds of Southeastern Idaho from the back of your favorite horse.  
 (Fall, Summer)

**AS 150 Introduction to Livestock Production (3:3:0)**  
 Overview of various livestock enterprises, including beef, dairy, sheep, swine and horse industries. Basic principles used in the various industries are presented. Emphasis given to current and future trends in animal science  
 (Fall, Summer)

**AS 165 Live Animal and Carcass Evaluation (2:1:2)**  
 Judging, grading, and methods of selection of market animals and carcasses. This course will provide students with guidelines for evaluation and selection procedures as applied to breeding, feeder and market swine, beef cattle and sheep. Will also provide principles for livestock and meat judging.  
 (Fall, Summer)

**AS 215 Anatomy & Physiology (3:3:0)**  
 Fee: \$20.00  
 A systems approach to the study of animal anatomy and physiology. Includes structure and function of the cell, skeletal, muscular, nervous, digestive and reproductive systems. Practical applications of anatomy and physiology and their relation to diseases and disorders.  
 (Fall, Winter)

**AS 215L Anatomy & Physiology (1:0:2)**  
 Laboratory experience covering microscopic cellular anatomy, cadaver dissection, and live animal palpation. Two hours per week studying the systems of the animal body being covered in the lecture portion of the class.  
 (Fall, Winter)

**AS 220 Feeds & Nutrition (3:3:0)**  
 Prerequisite: Math 110 & Chem 105  
 The study of the principles of animal nutrition as applied to nutrient digestion and metabolism, feedstuff characteristics, and principles for formulating nutritionally balanced diets.  
 (Fall, Summer)

**AS 225 Range Ecology I (3:3:0)**  
 Fee: \$10.00  
 Introductory study of the management of dynamic systems including the study of both large and small living organisms and

their impact on ecological processes. This course is designed to teach students basic understanding of systems thinking, problem solving and the four processes making up an ecosystem including; water cycling, mineral cycling, energy flow and biotic state. Students will investigate the unique relationship of large and small living organism impact on these processes in creating a healthy, sustainable ecosystem. Undergraduates will discover the different tools used to enhance these processes for long term economic return.  
 (Fall, Summer)

**AS 240 Intermediate Equitation (1:0:2)**  
 Fee: \$100.00  
 Prerequisite: AS 140  
 Instructor level skills in horsemanship. Horsemanship skills in trail riding, western riding, barrel racing, pole bending, team penning and team roping.  
 (Fall, Winter, Summer)

**AS 247 Animal Handling and Behavior (2:1:3)**  
 Fee: \$100.00  
 Application of low stress animal handling with sheep, cattle and horses  
 (Fall, Winter)

**AS 248 Draft Horses (2:2:4)**  
 Fee: \$40.00  
 This course is to prepare students to safely hitch and drive a variety of horse drawn vehicles with draft animals for work or recreational purposes.  
 (Winter)

**AS 315 Animal Health (3:3:0)**  
 Prerequisite: AS 215  
 Introduction and categorization of livestock diseases and basic principles of disease prevention programs.  
 (Fall, Winter)

**AS 315L Applied Animal Health Lab (1:0:2)**  
 Hands-on procedures of animal handling and health practices. Techniques such as restraint, injections, calving assistance, dehorning, vaccination, etc.  
 (Fall, Winter)

**AS 320 Feedlot Management (3:3:0)**  
 Fee: \$20.00  
 Prerequisite: AS 220  
 Designed for students interested in pursuing a career in beef feedlot management or other related agribusiness areas.  
 (Fall or Winter)

**AS 325 Range Ecology II (3:5:2)**  
 Fee: \$10.00  
 Prerequisite: AS 225  
 Areas of discussion include pasture lay out, fence design, water systems, herding effect, grazing systems, leasing, permits, BLM, state ground, private ground, lease ground, forage estimates, photosynthesis, energy store, tools of land management, drought management.  
 (Fall, Winter)

**AS 330 Artificial Insemination (2:1:2)**  
 Fee: \$10.00  
 Prerequisite: Recommend AS 215 or AS 336  
 Development of manual skills required for cattle insemination using frozen semen. Subject matter includes principles related to selection criteria for sires, semen storage, estrus detection and synchronization. Class time is combined with practice time using live cattle.  
 (Summer, Fall)

<p><b>AS 333 Livestock Genetics</b> (3:3:0) Prerequisite: AS 150 Study of animal breeding principles involved in improving livestock through genetic selection methods. Exploration of genetic theories and mating systems currently used in animal agriculture. (Summer, Fall)</p>	<p><b>AS 430 Advanced Reproduction</b> (4:3:3) Fee: \$20.00 Prerequisite: AS 215, AS 336, AS 330 or proficiency in artificial insemination, consent of Instructor Development of skills involved in livestock reproduction technologies such as estrus synchronization, pregnancy detection, ultrasonography and embryo transfer. Cattle are the focus species. (Fall, Winter, Summer)</p>
<p><b>AS 336 Animal Reproduction</b> (3:3:2) Study of reproduction of cattle, sheep, horses, and pigs. Instruction in basic reproductive anatomy, and the processes involved in prenatal development, puberty, conception and parturition. Application of reproductive principles as used in estrus synchronization, insemination, ultrasonography and embryo transfer. (Fall, Winter)</p>	<p><b>AS 435 Equine Nutrition</b> (3:3:2) Prerequisite: AS 220 A study of the various factors influencing equine nutrient requirement for maintenance, growth, reproduction, lactation and work. Feeding practices, determination of appropriate feedstuffs and economical feeding principles will be applied. (Fall, Winter, Summer)</p>
<p><b>AS 340 Horse Production</b> (3:3:2) Production practices in the selection, care and evaluation of horses. Designed to provide students with better understanding of the modern equine industry. Students will learn principles of horse health, breeds of horses, their characteristics, and their uses, as well as equine behavior, anatomy and physiology, nutrition and reproduction (Winter, Summer)</p>	<p><b>AS 455 Rangeland Inventory &amp; Analysis &amp; Lab</b> (3:1:3) Prerequisite: AS 225 &amp; Bio 302 Rangeland ecology and vegetation measurements including condition, trend, utilization, suitability and production. (Fall)</p>
<p><b>AS 350 Small Animal Production</b> (3:3:2) Fee: \$10.00 Prerequisite: AS 150 &amp; 220 This course provides a hands-on, in-depth study of how to make money on swine, sheep, goats and poultry. The goal of this course is for the student to learn how to transform their investment of dollars and time into a profitable and rewarding farm enterprise. The course will be centered on the production of swine, sheep and goats as well as poultry production (Fall or Winter)</p>	<p><b>AS 466 Rangeland Vegetation Manipulation and Improvement</b> (3:3:0) Prerequisite: AS 225 Rangeland habitat improvement by manipulating plant communities. Techniques include: prescribed fire, biological control, herbicide treatments, mechanical treatments and manipulation by herbivory. (Winter)</p>
<p><b>AS 355 Meat / Live Evaluation</b> (2:2:0) Prerequisite: AS 215, taken in conjunction with AS 356 Live evaluations through processing of beef, hog and lamb carcasses. Slaughter, cutting, curing, smoking and cooking of meat. (Fall, Winter)</p>	<p><b>AS 490 Individual Studies</b> (1-3:0:0) Independent study, special assignment and/or advanced inquiry in an area of special interest; approved after consultation with instructor in charge (Upon request). (Fall, Winter, Summer)</p>
<p><b>AS 356 Meat Practicum</b> (1:0:3) Prerequisite: Taken in conjunction with AS 355 The study of meat science including harvesting, processing, identifying specific cuts, and retailing of beef, lamb, and pork. Live and harvested evaluation of beef, hogs and lambs. Course includes meat identification, economic structure of the meat industry, supply and demand models, human nutrition, U.S. &amp; global consumption, production and marketing. (Fall, Alternating Winter)</p>	<p><b>AS 498R Internship</b> (1-4:0:0) Prerequisite: Consent of Instructor. Work experience in an agricultural related setting. Students work under employer supervision, submitting weekly reports as well as a final report. Many of the internships are student-located and may provide financial compensation. (Fall, Winter, Summer)</p>
<p><b>AS 360 Beef Production</b> (3:2:2) Fee: \$10.00 Prerequisite: AS 150, 220 &amp; 336 Applied techniques and principles of beef production and management. Lectures will be designed to help students better understand the demands, trends and management tools of the beef industry and they will receive hands on training concerning health care, reproduction, nutrition, cattle selection, breeds, best management practices and economical tools used in management decisions. (Fall, Alternating Winter)</p>	<p><b>AS 499 Senior Seminar</b> (1:1:0) A course designed to enhance student communication and presentation skills prior to entering the work force. (Fall, Winter, Summer)</p>
<p><b>AS 425 Ruminant Nutrition</b> (3:3:2) Fee: \$5.00 Prerequisite: AS 220 A study of digestive physiology, including intake, digestion, absorption, utilizations and factors affecting the nutritional status of the ruminant animal. (Fall, Winter)</p>	