

INTEGRATIVE ANIMAL SCIENCES APPROVED ELECTIVES (Group P)

All Integrative Animal Sciences specialization students must complete a **minimum** of:

- 6 **credits** of approved Animal Science lecture electives
- 3 **credits** of approved Animal Science lab electives

LECTURE ONLY ELECTIVES

Course Number	Course Title	Credits	Notes
* ANS 2002	The Meat We Eat	3	
* ANS 2090	Survey of Veterinary Medicine	2	
ANS 3008	Domestic Animal Behavior and Welfare	3	
† ANS 3216	Introduction to Equine Science	3	Prereq: BSC 2010
‡ ANS 3251	Biology & Management of Dairy Cattle	3	Optional Co-req: ANS 3250L
‡ ANS 3404C	Food Animal Nutrition & Feeding	4	Prereq: ANS 3440
† ANS 3405	Equine Nutrition & Feeding	2	Prereq: ANS 3440
† ANS 4243	Beef Cow-Calf Management	5	DEPT. CONTROLLED
‡ ANS 4245	Beef Background & Feedlot Management	2	DEPT. CONTROLLED Prereq: ANS 4243 in previous fall and/or have approval from Dr. Thrift.
† ANS 4382	Equine Genetics	2	Prereq: ANS 3384C (or equivalent genetics)
* ANS 4383	Quantitative Genetic Analyses	3	Prereq: ANS 3384C (or equivalent genetics)
† ANS 4240C	Sustainable Cattle Systems	2	Prereq: ANS 3006
† ANS 4701	Physiology of the Mammary Gland and Lactation	2	Prereq: ANS 3319C
* ANS 4931	Senior Seminar	1	
‡ ANS 4932	HACCP Systems	2	
‡ ANS 4932	Seedstock Management	3	

Color Codes: Fall & Spring (*), Fall (†), Spring (‡)

LECTURE ONLY CONTINUED

† ANS 4932	Animal Welfare Assessment	2	Prereq: ANS 3008 <u>or</u> instructor permission
* ANS 4932	Dairy Cattle Reproduction	2	Prereq: ANS 3319C
* ANS 4932	Milk Quality and Mastitis Control	1	
ANS 4932	Dairy Farm Evaluation	2	Prereq: ANS 3251

Color Codes: Fall & Spring (*), Fall (†), Spring (‡)

LAB ONLY ELECTIVES

Course Number	Course Title	Credits	Notes
‡ ANS 3613C	Value Determination of Meat Animals	3	
† ANS 3239L	Techniques in Equine Science Two Sections: Regular or Ranch	2	DEPT. CONTROLLED does not require equine experience. Remedial horsemanship.
‡ ANS 3239L	Techniques in Equine Science – Ranch Horse Management	2	DEPT. CONTROLLED Requires equine experience; contact Joel McQuagge Offered every other spring – odd years
* ANS 3246L	Beef Production Practicum	2 Fall 2 Spring = 4 total	DEPT. CONTROLLED Must be co-enrolled in ANS 4243 in the fall and ANS 4245C in the spring with pre-approval from Dr. Thrift
‡ ANS 3250L	Dairy Cattle Practicum	2	Coreq: ANS 3251 (or have previously taken)
* ANS 3500L	Chicken Growth and Development	1	Coreq: ANS 3043 (or have previously taken)
‡ ANS3943C	Weanling Behavior & Modification	2	No equine experience required.
‡ ANS 4079C	Relationship of Form to Function in Horses	3	Prereq: ANS 3043

Color Codes: Fall & Spring (*), Fall (†), Spring (‡)

LAB ONLY ELECTIVES CONTINUED

‡ ANS 4212L	Techniques in Farrier Science	2	<u>Departmentally controlled;</u> contact Joel McQuagge
† ANS 4218L	Horse Psychology & Training	3	<u>Departmentally controlled.</u> significant riding experience required; must enroll in ANS 4241L in following spring; contact Joel McQuagge.
† ANS 4231	Practicum in Horse Management & Training Techniques Horse Care & Grooming	1	No equine experience required. Offered Spring, Summer A, and Fall SUMMER SECTION IS DEPARTMENTALLY CONTROLLED
‡ ANS 4231	Practicum in Horse Management & Training Techniques Foaling Practicum	1	Located at the Equine Sciences Center in Ocala No equine experience required.
‡ ANS 4241L	Intermediate Horse Training	2	<u>Departmentally-controlled;</u> must have been enrolled in ANS 4218L in the previous fall; contact Joel McQuagge
* ANS 4605	Horse Judging Team Livestock Judging Meats Judging Team Meat Animal Evaluation Team Animal Welfare Assessment Team	1	This is a calendar year commitment (spring -> fall) for the judging teams; must have coach approval for enrollment
‡ ANS 4389L	Techniques in Molecular Genetics	2	Must have completed ANS 3384, AGR 3303, or PCB 3063 with a C or better Offered every other spring – odd years
‡ ANS 4932	Dairy Farm Evaluation	1	

Color Codes: Fall & Spring (*), Fall (†), Spring (‡)

LECTURE OR LAB ELECTIVES

Please note: can only be used once as a Lecture or Lab-approved elective.

Course Number	Course Title	Credits	Notes
† ANS 2615C	Introduction to Livestock and Meat Evaluation	3	Suggested for students interested in joining the livestock or meat judging teams.
† ANS 3217C	Equine Health Management	2	Recommend students take MCB 2000/L or MCB 3020/L prior to enrollment
† ANS 3634C	Meats	3	
‡ ANS 4318C	Equine Reproductive Management	3	Prereq: ANS 3319C Equine experience is not required, but is recommended
‡ ANS 4320C	Applied Livestock Reproduction	3	DEPT. CONTROLLED Must have completed ANS 3319C
† ANS 4635C	Meat Processing	3	
† ANS 4623C	Pork Production	3	
‡ ANS 4932	Small Ruminant Production	2	

Color Codes: Fall & Spring (*), Fall (†), Spring (‡)

Advisor Approved Electives:

This list is subject to change based on course availability, updates, and new course offerings. Always reference the [UF Catalog](#) and [UF Schedule of Courses](#) to check for availability and the semester a course is offered

If you have a course you believe should be added to a concentration, feel free to write it in the bucket in an empty space.

Nutrition Concentration Courses

CHM2046/L Chemistry 2 w/ lab (4)	ANS3405 Equine Nutrition (2)	ANS3404C Food Animal Nutrition (4)
FOS3042 Introductory Food Science (3)	AGR4231C Forage & Range Mgmt. (4)	HUN2201 Fundamentals of Human Nutrition (3)
ANS4911 Supervised Research (1-3)	HUN3403 Nutrition Through the Life Cycle (2)	

Behavior & Welfare Concentration Courses:

PSY2012 General Psychology (3)	CBH3003 Comparative Psychology (3) Spring Only	ANS3008 Livestock Behavior & Welfare (3)
WIS4570C Wildlife Behavior and Conservation (3)	ZOO4050 Animal Behavior (3)	ANS4231 Weanling Handling
ANS4218L Horse Psychology & Training (2)**	ANS4241C Intermediate Horse Training (3)**	ANS4932 Behavior and Welfare Assessment
ANS4911 Supervised Research (1-3)		

Environment & Society Concentration Courses:

AOM2520 Global Sustainable Energy: Past, Present and Future (3)	ALS3133 Agricultural and Environmental Quality (3)	AEB4126 Agriculture and Natural Resource Ethics (3)
AEB4123 Agricultural and Natural Resource Law (3)		

Reproduction Concentration Courses:

ANS4318C Equine Reproduction (3)	ANS4231 Foaling Practicum (1)	ANS4932 Applied Reproductive Management (3)
ANS4701 Lactation Physiology (3)	ANS6704 Mammalian Endocrinology (2, Prereq: BCH3025)	ANS4911 Supervised Research (1-3)
ANS4905 Supervised Breeding Mgmt. (1-3)	GMS6419 Medical Endocrinology and Reproduction – Human	

Agricultural Communication and Education Concentration Courses:

AEC3065 Issues in Agricultural and Life Sciences (3)	AEC3070C Digital Media Production in Ag and Life Sciences (3)	AEC3073 Intercultural Communication (3)
AEC4035 Communication Practices for Ag and Life Sciences (3)	AEC4031 The Communication Process in Ag and Life Sciences (3)	AEC4434 Communication and Leadership in Groups and Teams (3)

Agricultural Business & Marketing Concentration Courses:

AEB3133 Principles of Ag Business (3)	AEB3300 Ag & Food Marketing (3)	AEB3341 Selling Strategically (3)
AEB3122 Financial Planning for Agribusiness (3)	AEB3315 Futures Markets & Risk Mgmt. in Agriculture (3)	AEB4424 Human Resources Mgmt. in Agribusiness (3)

One-Health Concentration Courses:

CHM2046/L Chemistry 2 w/ lab (4)	APK2100C Applied Human Anatomy w/ lab (4)	APK2105C Applied Human Physiology w/ lab (4)
HSC3537 Health & Medical Terminology (3)	PCB3402 Disease Ecology and Evolution (3)	MCB3020/L Basic Biology of Microorganisms (4)
MCB4203 Bacterial Pathogens (3)	ENY4660 Medical and Veterinary Entomology (3)	FOS4222 Food Microbiology (3)
ANS4932 HACCP Systems (2)		

Data Science/Artificial Intelligence Concentration Courses:

COP3502C Programming Fundamentals I (4)	COP3503 Programming Fundamentals II (3)	MAC2311 Analytic Geometry and Calculus I (4)

Agronomy & Soil Science Concentration Courses:

Genetics Concentration Courses:		
ANS4911 Supervised Research (1-3)		

UF Minor OR Certificate Concentration	*Must have 6 unique credits*