INTEGRATIVE APPROVED ELECTIVES

Approved Animal Science Planned Electives (Group P)

From this list you will need to choose **6 credits approved lecture, 3 credits approved lab** Animal Sciences electives. These courses could potentially overlap with some of your Advisor Approved Electives (Group A).

Approved Lectures: Minimum 6 credits required

Course Number	Course Title	Credits	Notes
*ANS 2002	The Meat We Eat	3	
*ANS 2090	Survey of Veterinary Medicine	2	
†ANS 3008	Livestock Behavior & Welfare	3	
†ANS 3216	Intro to Equine Science	3	
ŧANS 3251	Biology & Management of Dairy Cattle	3	
ŧANS 3404C	Food Animal Nutrition & Feeding	4	
†ANS 3405	Equine Nutrition & Feeding	2	
†ANS 4240C	Sustainable Cattle Systems	2	
†ANS4243	Beef Cow/Calf Management	5	**Departmentally Controlled**; Teams page and emails from ANS Advisors will have form to request enrollment prior to Advanced Registration
ŧANS 4245	Beef Background & Feedlot Management	2	Must have been enrolled in ANS4243 in previous fall and/or have prior approval from Dr. Thrift
†ANS 4382	Equine Genetics	2	ANS 3384C (or equivalent genetics course) is a pre-requisite
*ANS4383	Quantitative Genetic Analyses	3	ANS3384C (or equivalent genetics course) is a pre-requisite
ŧANS 4389L	Techniques in Molecular Genetics	2	Must have completed ANS 3384, AGR 3303, or PCB 3063 with a "C" or

Course Number		Credits	
*ANS 4931	Senior Seminar	1	better; only taught **ODD** years
ŧANS 4932	HACCP Systems	2	
ŧANS 4932	Seedstock Management & Marketing	3	

Color Codes: Fall & Spring (*), Fall (†), Spring (ŧ), Summer (††)

Approved Labs: Minimum 3 credits required

Course Number	Course Title	Credits	Notes
†ANS 3239L	Techniques in Equine Science (Remedial Horsemanship)	2	**Departmentally-controlled** and does not require equine experience
ŧANS 3239L	Techniques in Equine Science – Ranch Horse Management *offered every other spring – odd years*	2	**Departmentally-controlled** and requires equine experience; contact Joel McQuagge
*ANS 3246L	Beef Production Practicum	2 Fall + 2 Spring 4 total	**Departmentally-controlled**; must be co-enrolled in ANS 4243 in the fall and ANS 4245C in the spring with pre-approval from Dr. Thrift; course is conducted at the Beef Teaching Unit.
ŧANS 3250L	Dairy Cattle Practicum	2	Must be co-enrolled in ANS 3251; some labs conducted at Dairy Research Unit
*ANS3500L	Chicken Growth & Development	1	Must take concurrently with ANS3043
†ANS3943C	Weanling Behavior Modification	1	Located at the HTU; no equine experience needed
ŧANS 4212L	Techniques in Farrier Science	2	Departmentally-controlled; contact Joel McQuagge
†ANS 4218L	Horse Psychology & Training	3	Departmentally-controlled; significant

			riding experience required; must enroll in ANS 4241L in following spring; contact Joel McQuagge
ǂANS 4241L	Intermediate Horse Training	2	**Departmentally-controlled**; must have been enrolled in ANS 4218L in previous fall; contact Joel McQuagge
†ANS 4231 **Section GRM1**	Practicum in Horse Management & Training Techniques Horse Care & Grooming	1	Located at the HTU; no equine experience needed.
ǂANS 4231 **Section GRM**	Practicum in Horse Management & Training Techniques Horse Care & Grooming	1	Located at the HTU; no equine experience needed.
ǂANS 4231 **Section FOAL**	Practicum in Horse Management & Training Techniques Foaling Practicum	1	Located at the Horse Research Center in Ocala; **NOT departmentally-controlled** and you may enroll yourself; no equine experience needed.
*ANS 4605	Horse Judging Team Livestock Judging Team Meats Judging Team Meat Animal Evaluation Team	1	This is a **calendar** year commitment (spring and fall) for the judging teams; must have coach approval for enrollment
ǂ ANS4932	Dairy Farm Evaluation	1	ANS3251 is Pre-requisite

Color Codes: Fall & Spring (*), Fall (†), Spring (ǂ), Summer (††)

Approved Lecture OR Lab

Course Number	Course Title	Credits	Notes
†ANS 2615C	Introduction to Livestock and Meat Evaluation	3	Recommended for students interested in joining the Meats Judging Team
†ANS 3217C	Equine Health Management	2	**Departmentally-controlled**; recommend students take MCB 2000/L or MCB 3020/L prior to enrollment
ŧANS 3613C	Value Determination of Meat Animals	3	
†ANS 3634C	Meats	3	
ŧANS4079C	Form to Function in Horses	3	ANS3043 is pre-requisite
ŧ ANS4318C	Equine Reproductive Management	3	Must have completed ANS3319C
†ANS4623C	Pork Production	3	
† ANS 4635C	Meat Processing	3	
ŧANS 4320C	Applied Livestock Reproduction	3	Must have completed ANS 3319C

Color Codes: Fall & Spring (*), Fall (†), Spring (ŧ), Summer (††)

Advisor Approved Electives (Group A):

Below you will find different "buckets" of courses. With your advisor you will select 30 credits of Advisor Approved Electives based on your career interests and goals. You will need to choose a "Primary" bucket where you will need to select a minimum of **four** classes. You may choose all courses from one bucket or work with your advisor to choose from multiple buckets. If you find other courses related to a certain bucket, or believe a course is in line with a course of study, please talk with your advisor about options.

This list is subject to change based on course availability, updates, and new course offerings. If you have a course you believe should be added to a concentration, please let your advisor know

Nutrition Concentration Courses		Primary bucket?
__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)
	__ HUN3403 Nutrition Through the Life Cycle (2)	

Total: _____

Behavior & Welfare Concentration Courses:		Primary bucket?
__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)**	

Total: _____

Environment & Society Concentration Courses:		Primary bucket?
__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)		

Total: _____

Reproduction Concentration Courses:		Primary bucket?
__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	

Total: _____

Agricultural Communication and Education Concentration Courses:		Primary bucket?
__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)

Total: _____

Agricultural Business & Marketing Concentration Courses:		Primary bucket?
__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)

Total: _____

One-Health Concentration Courses:		Primary bucket?
__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)		

Total: _____

Data Science/Artificial Intelligence Concentration Courses:		Primary bucket?
__COP3502C Programming Fundamentals I (4)	__COP3503 Programming Fundamentals II (3)	__MAC1114 Trigonometry (2) and MAC1140 Pre Calculus (3) or
__MAC1147 Pre Calculus with Trigonometry (4)		

Total:_____

Agronomy & Soil Science Concentration Courses:		Primary bucket?

Total:_____

Genetics Concentration Courses:		Primary bucket?

Total:_____

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

Total:_____