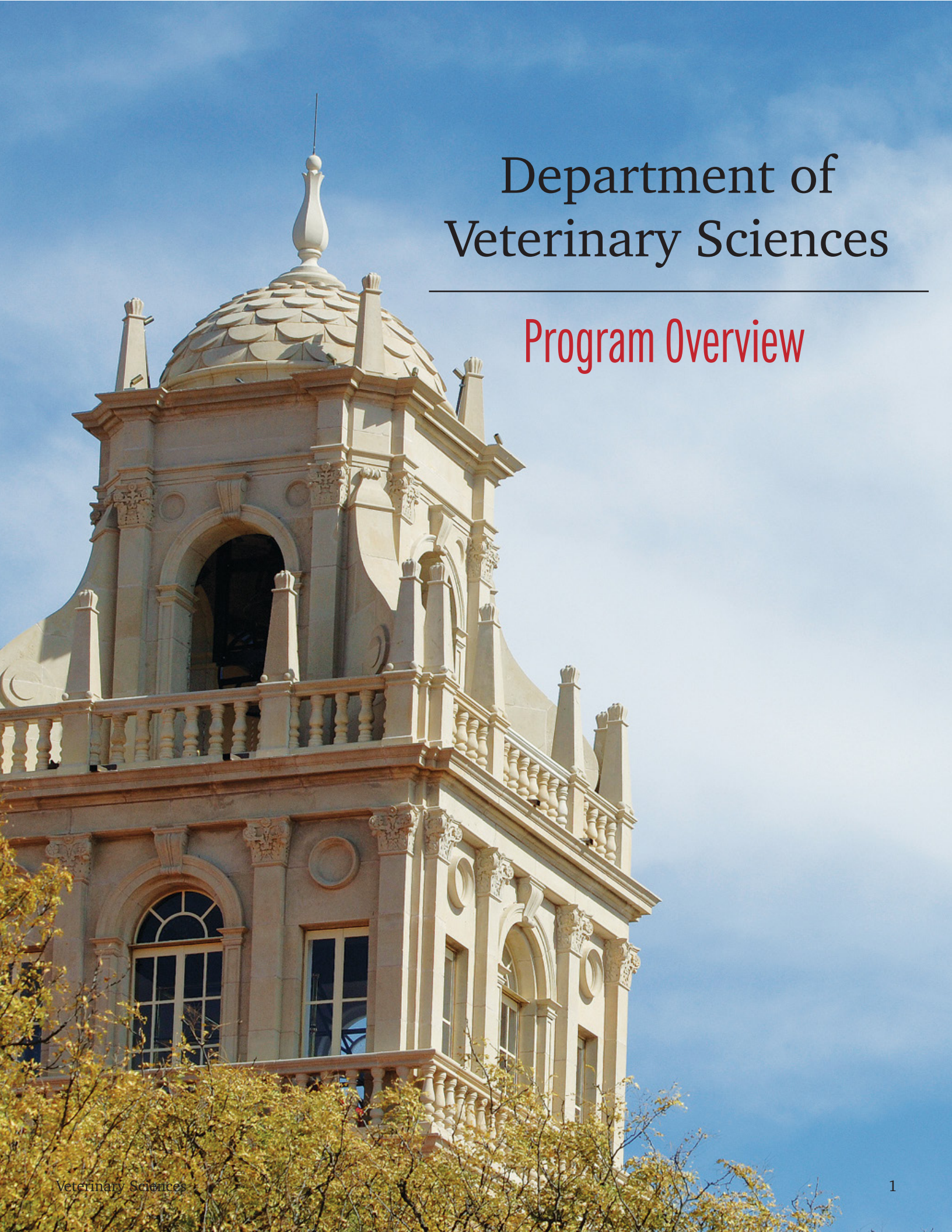

Department of Veterinary Sciences

Program Overview

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Master's of Science in Animal Health & Industry

Overview

The Master of Science with a major in Animal Health & Industry objective is to provide students with knowledge and skillsets to design strategies to mitigate the detrimental impacts of health issues in the animal industry. This will include the identification of major health issues in animals, analysis, and interpretation of epidemiological data, and communication with stakeholders.

This degree is the first of its kind to be established to fill this niche between a bachelor's degree and a DVM of veterinary medicine, or for those not pursuing vet school but who want to obtain more than a bachelor's degree and work in the Animal Health Industry. The flexible modality allows students from across the United States to complete the degree program. The allied industries and the Animal Health field are remarkably diverse. This master's program is designed for those who strive for more than simply a bachelor's degree. The flexibility of this degree program provides students with options to meet individual learning outcomes.

The Master of Science in Animal Health and Industry required courses will provide students with a practical knowledge base to prevent, identify and interpret data collected in the workplace setting and develop strategic plans to implement in the care of animals. The prescribed elective courses will offer students the opportunity to learn the communication and business analysis skills necessary to work in the industry at the local and international marketplace level while providing the flexibility to tailor their degree program to meet the individual needs of each student and their career goals.

Master's of Science in Animal Health & Industry

Requirements to be Admitted to Graduate School

- A minimum GPA of 3.0
- A Test of English as a Foreign Language (TOEFL) score of 80 or above is required for international applicants.
- A one-to-two-page personal narrative statement reflecting the applicant's background, career goals, and how the program will help to achieve those goals
- Official Transcripts
- At least two letters of recommendation
- A four-year undergraduate degree in an area that will provide an adequate background to successfully undertake graduate studies in Animal Health and Industry
- Acceptance and approval of the Graduate School
- Program may be started any semester

Animal Health & Industry Non-Thesis Option

This degree is a 30-hour non-thesis master's degree program. Designed primarily for those wanting a terminal degree. Students will be required to complete six core curriculum courses, two prescribed electives, and either six additional hours from electives or from an approved internship consisting of 150 clock hours of hands-on experience. The program will focus on providing students with an interdisciplinary knowledge of animal health and sustainable industry practices.

Category	Semester Credit Hours	Clock Hours
Required Courses	18	
Prescribed Electives	6	
Internships or Extra Electives	6 - internship*	150 hours
TOTAL	30 Credit Hours	

*Must complete 6 electives hours **OR** 6 internship hours

Animal Health & Industry Non-Thesis Option

Required/Core Courses (18 Credit Hours)

Prefix and Number	Required/Core Course Title	Semester Credit Hour	Semester Offered	Distance/In Person/Both
Required:				
VSCI 5403	Biometry	4	Fall	Both
VSCI 5100	Seminar (Part 1)	1	Fall, Spring, and Summer	Both
VSCI 5100	Seminar (Part 2)	1	Fall, Spring, and Summer	Both
Choose 4:				
VSCI 5320	Basic Concepts in Endocrinology	3	Fall	Both
VSCI 5313	Nutritional Biochemistry in Animals	3	Spring	Both
VSCI 5301	Epidemiological Methods	3	Spring	Both
VSCI 5302	Animal Diseases of Livestock	3	Spring	Both
VSCI 5304	Application of Immunology	3	Fall	Both
VSCI 5001	Special Problems	Variable	Variable	Variable

Choose Approved Internship or Additional Elective Courses (6 Credit Hours)

Prefix and Number	Required/Core Course Title	Semester Credit Hour	Semester Offered	Distance/In Person/Both
VSCI 5000	Internship	6	Fall, Spring and Summer	Both

- If you decide to enroll in additional elective courses, you should discuss it with your academic advisor before enrolling.
- If a student decides to do an internship, the student will require approval before enrolling.

Animal Health & Industry Non-Thesis Option

Prescribed Electives
(6 Credit Hours – must be an approved interdisciplinary course)

Prefix and Number	Required/Core Course Title	Semester Credit Hour	Semester Offered	Distance/In Person/Both
ACOM 5304	Risk and Crisis Communication in Agriculture and Natural Resources	3	Fall	Both
ACOM 5305	Public Opinion in Agriculture	3	Spring	Both
ACOM 5306	Foundations of Agricultural Communications	3	Fall	Distance
AAEC 5310	Advanced Market Analysis	3	Summer	Both
AAEC 5312	Agribusiness Analysis	3	Summer	Distance
AAEC 5318	Finances and Agribusiness Sector	3	Spring	Both
AAEC 5319	Advanced Enterprise Analysis	3	Fall/Spring	Both
AAEC 5320	Agribusiness Law	3	Fall	Both
AAEC 5325	Applied Regression and Least Squares Analysis	3	Fall	Both
AGLS 5304	Theoretical Foundations of Leadership	3	Fall	Distance
AGLS 5305	Developing Leadership in Rural Communities	3	Fall	Distance
AGLS 5306	Contemporary Issues in Agricultural Communications	3	Spring	Distance
AGLS 5307	Evaluating Leadership in Agricultural Communications	3	Spring	Distance
AGED 5301	Scientific Communications	3	Summer Only (odd years)	Varies by topic and instructor

Animal Health & Industry Non-Thesis Option

Degree Plan

Completion of a tentative degree plan must be submitted to your advisor and approved prior to the end of the students first semester of coursework.

Comprehensive Exam

A comprehensive exam will be administered at the completion of all required coursework for Non-Thesis students who choose the extra electives option. Material for the exam will be taken from the 18 hours of required core curriculum coursework. Any courses taken as approved electives will not be covered on the exam. To graduate from the program, a score of 70% or greater must be earned on the comprehensive exam. A passing grade on the exam is required for the degree to be awarded, regardless of cumulative or term GPA. If a student fails the first attempt of the comprehensive exam, a makeup exam will be offered. If the student fails in their second attempt, they will be required to repeat the program in its entirety and successfully complete the coursework and comprehensive exam to earn the degree. The program cannot be repeated more than once.

Other Information

Transfer credit will be evaluated and accepted on a case-by-case basis. Students will be required to submit an official transcript and syllabus for evaluation by the Department of Veterinary Sciences for transfer credit to apply toward the degree. Transfer courses must meet learning outcomes and include information specific to the comprehensive exam. No more than 6 credit hours can be transferred.

Credit by exam, credit for professional experience, and placement of courses will not be accepted to apply toward the degree.

This program includes the option for an approved internship consisting of 150 clock hours. This competency-based education strategy will allow the students to actively work with stakeholders and/or future employers in the animal health industry and apply the knowledge acquired during the program.

Student Advising Form

Required/Core Courses (18 Credit Hours)

Course	Semester
VSCI 5403	
VSCI 5100 (Part 1)	
VSCI 5100 (Part 2)	
VSCI 5320	
VSCI 5313	
VSCI 5301	
VSCI 5302	
VSCI 5304	
VSCI 5301	

Approved Internship or Additional Electives (6 Credit Hours)

Course	Semester
VSCI 5000	
OR	
Extra Elective	
Extra Elective	

Prescribed Electives (6 Credit Hours)

Course	Semester	Course	Semester
ACOM 5304		AAEC 5320	
ACOM 5305		AAEC 5325	
ACOM 5306		AGLS 5304	
AAEC 5310		AGLS 5305	
AAEC 5312		AGLS 5306	
AAEC 5318		AGLS 5307	
AAEC 5319		AGED 5301	

*Additional elective courses may be approved by your academic advisor.

Animal Health & Industry Thesis Option

Required/Core Courses (12 Credit Hours)

Prefix and Number	Required/Core Course Title	Semester Credit Hour	Semester Offered	Distance/In Person/Both
Required:				
VSCI 5403	Biometry	4	Fall	Both
VSCI 5100	Seminar (Part 1)	1	Fall, Spring, and Summer	Both
VSCI 5100	Seminar (Part 2)	1	Fall, Spring, and Summer	Both
Choose 2:				
VSCI 5320	Basic Concepts in Endocrinology	3	Fall	Both
VSCI 5313	Nutritional Biochemistry in Animals	3	Spring	Both
VSCI 5301	Epidemiological Methods	3	Spring	Both
VSCI 5302	Animal Diseases of Livestock	3	Spring	Both
VSCI 5304	Application of Immunology	3	Fall	Both
VSCI 5001	Special Problems	Variable	Variable	Variable

Elective Courses (6 Credit Hours)

Collaborating with their advisor the student will choose 6 credit hours of electives relative to the area of study and interest of the student.

Thesis and Research Courses

Prefix and Number	Required/Core Course Title	Semester Credit Hour	Semester Offered	Distance/In Person/Both
VSCI 6000	Master's Thesis	6	Fall, Spring and Summer	In Person
VSCI 7000	Research	6	Fall, Spring and Summer	In Person

Student Advising Form

Required/Core Courses (18 Credit Hours)

Course	Semester
VSCI 5403	
VSCI 5100 (Part 1)	
VSCI 5100 (Part 2)	
Must take 2 of the courses below	
VSCI 5320	
VSCI 5313	
VSCI 5301	
VSCI 5302	
VSCI 5304	
VSCI 5001	

Elective Courses (6 Credit Hours)

Collaborating with their advisor the student will choose 6 credit hours of electives relative to the area of study and interest of the student.

Course	Semester

Thesis and Research Courses

Course	Semester
VSCI 6000	
VSCI 7000	

Course Descriptions

VSCI 5000 – Animal Health and Industry Internship

An internship is part of the degree program in the Department of Veterinary Sciences non-thesis master's degree in Animal Health and Industry.

VSCI 5001 – Special Problems

Selected problems based on the student's needs and interests not included in other courses. May be repeated for credit with approval of department.

VSCI 5100 – Seminar (Part 1 and Part 2)

Analysis of significant research. Oral presentations and discussions; enrollment required each semester of student's residence.

VSCI 5301 – Epidemiological Methods

The course is designed for graduate students interested in learning basic principles of Epidemiology and their application to studies in the veterinary/animal sciences. This course covers applications of epidemiologic methods and procedures to the study of the distribution and determinants of health and diseases, morbidity, and mortality in populations.

VSCI 5302 – Animal Diseases

The course is designed to learn about major diseases that affect ruminants and swine. Topics include cellular and tissue mechanisms leading to specific diseases, their etiology, diagnosis, pathology, prevention, treatment, and the implications in livestock production.

VSCI 5403 – Biometry

Introduction to biological statistics. Observations, probability, "t" test, analysis of variance, mean separation procedures, linear regression, and correlation, and chi-square. Introduction to computerization of statistical analyses.

VSCI 5304 – Application of Immunology

This course provides graduate students with a comprehensive understanding of immunological principles and their practical applications in maintaining and improving animal health.

VSCI 5313 – Nutritional Biochemistry in Animals

Nutrient metabolism and regulation in animals. Course integrates metabolic pathways with nutrition and physiology.

Course Descriptions

VSCI 5315 – Animal Endocrinology

The course will address current research on hypothalamic-pituitary regulation of physiological systems including reproduction, growth, immune function, digestion, and behavior.

VSCI 6000 – Master's Thesis

Varies 1-12 Semester Credit Hour

VSCI 7000 – Research

Varies 1-12 Semester Credit Hours

ACOM 5304 - Risk and Crisis Communications in Agriculture and Natural Resources

Examines potential risk and crisis communications scenarios in agriculture and the relevant theories, models, and processes to address these types of situations effectively.

ACOM 5305 - Public Opinion in Agriculture and Natural Resources

Reviews the concept of "public opinion" from a multidisciplinary perspective and examines how the concept applies to agriculture and the natural resources industry.

ACOM 5306 - Foundations of Agricultural Communications

Explore historical foundations and selected philosophical concepts and philosophers and evaluate their influence upon agricultural communications.

AAEC 5310 - Advanced Market Analysis

Theoretical and empirical approaches to market structures and market price behavior.

AAEC 5312 - Applied Economic Analysis for Agribusiness

Application of economic theory and methods to management problems of the business firms in the food and fiber sector.

AAEC 5318 - Finance and Agribusiness Sector

Applications of financial theory for the agribusiness sector. Risk, capital structure, business structure, investment analysis.

Course Descriptions

AAEC 5319 - Advanced Agribusiness Enterprise Management

Analysis of the organization and management of agribusiness operations including farms, ranches, input suppliers, commodity processors, etc.

AAEC 5320 - Agribusiness Law

The course focuses on various areas of law that directly affect the operation of agricultural businesses and producers. The course examines nature and sources of law, contracts, real estate matters, commercial transactions, business entities and environmental issues.

AAEC 5325 - Applied Regression and Least Squares Analysis for Agricultural Sciences

Application of regression analysis to analyze problems in the agricultural sciences, simple linear and multiple regression models, residual analysis, introduction to time series models.

AGLS 5304 - Theoretical Foundations of Leadership

Theory of motivation, behavior, leadership styles, power, influence, charisma, and the historical context of leadership in the agriculture industry.

AGLS 5305 - Developing Leadership in Rural Communities

Introduction to the theories, concepts, and practical application of identifying, developing, and utilizing leadership to help sustain and revitalize rural communities.

AGLS 5306 - Contemporary Issues in Agricultural Leadership

Exposes students to national, regional, and local agricultural issues that can be positively impacted with the proper application of leadership principles.

AGLS 5307 - Evaluating Leadership in Agricultural Organizations

The application of leadership and evaluation principles to determine improvement areas to maximize efficiency of the human dimension of the agricultural industry.

AGED 5301 - Scientific Communications

Improve written, visual, and oral communications. Development of press releases, scientific papers, popular press articles, poster presentations, technical presentations, and grant applications.