Major Requirement Courses for Equine Science and Management

ASC 101 DOMESTIC ANIMAL BIOLOGY. (3) Fall Semester

The first in a sequence of two courses providing an introduction to the subject of animal science. Emphasis is placed on a fundamental understanding of anatomy, physiology, nutrition, reproduction, genetic and behavior of domestic animals. Pre-requisite: None

EQM 101 INTRODUCTION TO THE HORSE AND THE INDUSTRY. (2 credits) Fall Semester

An introduction to the horse and its basic biology, behavior and conformation. Additional subjects related to breeds, activities, the industry and current issues will also be covered. Pre-requisite: Restricted to Equine Science and Management majors.

EQM 105 EQUINE BEHAVIOR AND HANDLING. (2 credits) Spring Semester

This course covers basic equine behavior and how to handle horses safely in a variety of management situations. Students will use their understanding of equine behavior to develop management strategies and practices for all classes of horse. Pre-requisites: “C” or better in EQM 101 and restricted to Equine Science and Management majors.

ASC 310 EQUINE ANATOMY. (2 credits) Fall and Spring Semesters

Anatomy of the horse’s systems. Topics will include the anatomy of skeletal, muscular, respiratory, digestive, cardiovascular, and nervous systems. By the end of the course the students will be able to name and identify all the equine bones and their respective anatomical landmarks, know the equine muscles and tendons responsible for locomotion and their respective skeletal attachments, and describe the anatomy and recognize the function of the equine respiratory, cardiovascular, digestive, and nervous systems. Pre-requisite: ASC 101

ASC 320 EQUINE MANAGEMENT. (3 credits) Fall Semester

Study of the basic principles associated with horse management. Topics will include equine behavior, equine diseases and herd health programs, facilities and environmental management, nutrition and feeding management. Lecture, two hours; laboratory, three hours per week. Pre-requisite: ASC 101.

EQM 351 EQUINE HEALTH AND DISEASES. (3 credits) Spring Semester

This course will focus on health issues affecting the horse industry. Students will learn about the diseases and parasites affecting horses in Kentucky and across the nation. In addition, discussion will focus on management practices used on horse enterprises to reduce incidence of disease and maintain health for breeding horses, performance horses and the recreational horse. Pre-requisite: EQM 105 and major in Equine Science and Management B.S. degree program.
EQM 399 EQUINE SCIENCE AND MANAGEMENT INTERNSHIP. (3 credits) Fall, Spring & Summer Semesters

The equine internship is designed to provide students with experiences in career opportunities related to the horse industry. The internship gives students an educational experience that allows them to see the application of concepts learned in the classroom in an industry setting approved by the instructor. Pre-requisites: Junior standing (minimum of 60 earned credits), at least 12 hours of EQM core courses, 40 hours of verifiable previous work experience in the equine industry, a GPA of 2.0 of above, and an approved learning contract.

EQM 490 CAPSTONE IN EQUINE SCIENCE AND MANAGEMENT. (3) Fall and Spring Semesters

Discussion of the major issues impacting today’s equine industry. Students will use concepts from core and discipline related courses to analyze a variety of scenarios related to the industry. The scenarios will range from production to enterprise management, but may also include issues that have the potential to impact all aspects of the industry. Pre-requisites: Senior standing, major in Equine Science and management degree.

AEC 302 AGRICULTURAL MANAGEMENT PRINCIPLES. (4 credits) Fall and Spring Semesters

A comprehensive study of economic principles and management tools useful in farm and agribusiness decision making. Utilizes a systems approach to the planning, implementation and control of the agricultural business. Specific attention to application of management and decision theory, economic principles used in decision making, and risk management strategies. Emphasis on planning the future course of the business, acquiring and managing the necessary resources, and establishing physical and financial control over the business. Lab incorporates microeconomic applications of management principles developed in lectures. Pre-requisite: “C” or better in ECO 201.

Additional Equine Specific Courses

ASC 410G EQUINE SCIENCE. (3 credits) Spring Semester

Detailed study of the anatomy and physiology of the horse as they relate to nutrition, reproduction, growth, unsoundness, and athletic ability. Lecture, two hours; laboratory, two hours. Pre-requisites: Junior standing and ASC 320 or instructor consent.

EQM 106 INTRODUCTION TO CAREERS IN THE EQUINE INDUSTRY. (1 credit) Spring Semester

This course will introduce students to more than 30 equine industry related jobs through guest lecturers, career research, and job shadowing. Guest lecturers will represent various jobs in different disciplines. They will explain how they ended up with the career they have and through question and answer sessions discuss how others can find similar careers and share career advice with the class. Students will also learn about benefits including insurance, retirement, 401K plans, housing, time off,
etc. and they will study different careers in relation to Myers-Briggs personality types. Pre-requisite: None.

**EQM 205 EQUINE CAREER PREPARATION CLASS. (1 credit) Fall Semester**

This course will prepare students for careers in the equine industry by teaching them to prepare for, find, and apply for jobs. It will also help them learn to plan for and design their own business and related marketing, employee relations, and tax issues. Pre-requisites: None.

**EQM 301 THOROGBRED SALES. (1 credit) Spring Semester**

This course will introduce students to the thoroughbred sales industry. Students will learn about the different regional and targeted markets as well as the sales process from sales prepping to being auctioned off. Students will learn about the different sales organizations and the different roles of individuals at the sales including consignors, auctioneers, sales companies, veterinarians, owners, pinhookers, and bloodstock agents. Students will also be introduced to the legal aspects of thoroughbred sales from contracts to insurance to financial transactions and conditions of sale. Pre-requisite: EQM 101 or consent of instructor.

**EQM 302 EQUINE EVENT PLANNING. (1 credit) Spring Semester**

This course will introduce students to planning equine events. Students will learn about the process of event planning including organization, committee work, and preparing timelines. They will also be introduced to numerous marketing strategies and tools and gain experience working with different registration programs. Students will also gain hands on event planning experience by putting on and Equine Career Fair as a class. They will be assigned to committees, responsible for different tasks, and involved in the Equine Career Fair from developing measurable objectives for success to analyzing survey feedback. Prerequisites: Sophomore level or above.

**VS 307 GENETICS OF HORSES. (3 credit) Fall Semester**

This course covers the basic principles of genetics and genomics with specific applications to the horse including, evolution, coat color genetics, hereditary diseases, cytogenetics, genetics of performance, pedigree studies, population genetics of horse breeds and the genetic relationship among members of the order perissodactyla. Pre-requisite: Biology 148 & 152 and CHE 107/113 or consent of the instructor.

**VS 500 ADVANCED EQUINE REPRODUCTION. (3 credit) Fall Semester (Even Years Only)**

A study of reproductive anatomy and physiology of the horse with emphasis on normal and abnormal reproductive functions in this species. Normal reproductive management and diseases affecting the reproductive system will be considered in detail. Pre-requisite: ASC 364
ASC 311 ADVANCE EQUINE EVALUATION. (1 credit) Fall Semester

Advanced study of conformation and performance in the horse. Selection of horses of different breeds based on conformation, breed character, pedigree and movement. Emphasis will be placed on developing a knowledge of industry standards for selection of horses for different purposes. Laboratory, two hours per week. Pre-requisite: ASC 310.

ASC 389 APPLIED EQUINE NUTRITION AND FEEDING. (2 credits) Spring Semester

This course examines the feeding management of broodmares, growing horses, performance horses and horses with special needs. Lecture materials cover common equine feeds, feed and ration analysis, factors influencing the utilization of feeds by horses and factors affecting nutrient requirements and feeding management of the different classes of horses. Pre-requisite: A course in nutrition or instructor consent.

AEC 300 EQUINE MARKETING (3 credits) Fall Semester

Students will be introduced to marketing strategy, planning, budgeting, research, product development, pricing, branding, communications, and promotions, with applications specific to the equine industry. Lectures will be supplemented with readings, case studies, and guest lectures by industry professionals with marketing backgrounds and experience. Pre-requisite: “C” or better in ECO 201

AEC 325 EQUINE LAW (3 credits) Spring Semester

This course examines equine law from tort and contractual perspectives dealing with basics of liability, purchase and sale, entity formation, constitutional and tax issues. Following the class, students should be able to recognize when it is necessary to retain a lawyer, but are not expected to be able to act as a lawyer. Pre-requisite: “C” or better in ECO 201.

GEN 300 EQUINE FACILITY DESIGN AND MANAGEMENT (3 credits) Spring Semester

This course examines the interaction between the physical design and business management of equine enterprises. Facility design needs and business planning will be investigated through the lens of a number of different types of enterprises, included boarding, training, and competition facilities. Pre-requisite: “C” or better in ECO 201 and ASC 320.

GEN 300 EQUINE INVESTMENTS (3 credits) Fall Semester

Successful completion of Equine Investments will have the students be able to analyze potential financial investments in broodmares, stallions, yearlings, weanlings and racehorses for profitability, risk, and future potential. Students will learn and be able to apply financial analysis modeling techniques to calculate financial metrics such as Internal Rate of Return, Net Present Value and Cash Payback as applicable to various types of equine investments. Student will be able to properly apply financial investing concepts such as diversification, financial leverage, risk / reward analysis and decision filtering criteria to equine investment scenarios. Students will have enhanced their presentation and data analysis skills as they will be required to analyze case studies and present conclusions and role play
investment selling scenarios to the class. Course will be highly interactive and emphasize analysis of real life situations and class discussion of case studies and comparisons of various types of equine investments. Pre-requisite: “C” or better in ECO 201 and Junior Status. – Emailed Jill

GEN 109 TOOLS AND TACK IN THE EQUINE INDUSTRY (2 credits) Fall Semester

This course will introduce students to the tools and tack used within the horse industry. It will start with the basic as well as discuss tools and tack specific to different breeds and disciplines. Pre-requisites: None.