Animal Science

Overview

This program offers courses designed for students in the Agriculture Business, Veterinary Technology, and Equine Science programs.

Degrees Offered

A.S. in Equine Science

Dean
Dana Wassmer

Department Chair
Dave Andrews

Phone
(916) 691-7391

Email
wassmed@crc.losrios.edu

Associate Degree

A.S. in Equine Science

Equine Science is the study of the principles behind the biology, function, and management of the horse. This program prepares students to develop the skills and knowledge that will help them gain a strong and competitive position in the equine industry.

Catalog Date: January 1, 2022

Degree Requirements

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
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<tbody>
<tr>
<td>ANSC 300</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 301</td>
<td>Introduction to Equine Science</td>
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<tr>
<td>ANSC 302</td>
<td>Equine Reproduction</td>
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<tr>
<td>ANSC 303</td>
<td>Equine Business Management</td>
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<td>ANSC 304</td>
<td>Livestock Feeding and Nutrition</td>
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<td>ANSC 305</td>
<td>Equine Health</td>
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<td>ANSC 306</td>
<td>Basic Equine Handling</td>
<td>1</td>
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<td>ANSC 307</td>
<td>Farrier Science</td>
<td>3</td>
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<tr>
<td>AGB 310</td>
<td>Agriculture Computer Applications</td>
<td>3</td>
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<td>AGB 320</td>
<td>Agriculture Accounting (3)</td>
<td>3</td>
</tr>
<tr>
<td>AGB 330</td>
<td>Agriculture Sales and Communication (3)</td>
<td>3</td>
</tr>
<tr>
<td>or AGB 331</td>
<td>Agriculture Marketing (3)</td>
<td></td>
</tr>
<tr>
<td>ANSC 498</td>
<td>Work Experience in Animal Science</td>
<td>0.5 -4</td>
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</table>

Total Units: 30.5 - 34

The Equine Science Associate in Science (A.S.) degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See CRC graduation requirements.

Student Learning Outcomes

Upon completion of this program, the student will be able to:

- Describe the processes involved and outline major events in the evolution and domestication of the horse.
- Formulate a disease and parasite prevention program for equine.
- Describe career opportunities and requirements for successful employment in the equine industry.
- Relate basic genetic principles to techniques in breeding selection and mating programs.
- Identify anatomy and describe physiology of the male and female equine reproductive tract.
- List and explain the correct use of specialized insemination tools.
- Develop and maintain bookkeeping and record systems.
- Develop a ranch plan for an equine facility, incorporating legal requirements and regulations.
- Identify parts of the equine gastrointestinal system and describe the function of each.
- Implement a sound feeding program based on the type and amount of work performed.
- Assess the function and importance of each nutrient as it pertains to equine nutrition.
- Demonstrate basic handling of the horse including catching, haltering, leading and tying.

**Career Information**

Many Equine Science graduates aim for a future in horse farm management at breeding facilities, lesson barns, and race and show training stables. Students may also qualify for employment as technologists, consultants, show and race facility managers and staff, high school and community or junior college riding and equine science instructors, government agents, journalists, and sales or service representatives for companies promoting horse feed, health, and care products. Other career opportunities are available through breed associations, humane organizations, agriculture extension services, recreational services, horse publications, and more. Many of these options require more than two years of college study. Classes beyond the associate degree may be required for career options or to fully prepare students for transfer to a university program.

**Animal Science (ANSC) Courses**

**ANSC 300 Introduction to Animal Science**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** None.
- **Transferable:** CSU; UC
- **General Education:** AAAS Area IV
- **C-ID:** C-ID AG – AS 104
- **Catalog Date:** January 1, 2022

This course provides a survey of the livestock industry, including the supply of animal products and their uses. A special emphasis is placed on the origin, characteristics, adaptation and contributions of farm animals to the agriculture industry. Students analyze the economic trends and career opportunities in animal agriculture.

**ANSC 301 Introduction to Equine Science**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** None.
- **Transferable:** CSU; UC
- **General Education:** AAAS Area IV
- **Catalog Date:** January 1, 2022

A survey of the equine industry including equine evolution, selection, nutrition and feeding, breeding, facilities, handling and health management. Emphasis on sound management practices. This course may include field trips and the instructor may or may not provide transportation.

**ANSC 302 Equine Reproduction**

- **Units:** 2
- **Hours:** 32 hours LEC; 12 hours LAB
- **Prerequisite:** None.
- **Transferable:** CSU
- **Catalog Date:** January 1, 2022

This course combines the study of basic genetic principles with the study of the anatomical and physiological aspects of reproduction as they relate to equine reproduction, emphasizing genetic principles and reproductive aspects. Artificial insemination, embryo manipulation, and current innovations in productive biotechnology will also be examined. This course may include field trips and off-site laboratories and the instructor may or may not provide transportation.

**ANSC 303 Equine Business Management**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** None.
- **Transferable:** CSU
- **Catalog Date:** January 1, 2022

Fundamentals of equine business operations, including taxes, liability, insurance, software, and facility design. The class will emphasize the skills necessary to manage a ranch, barn, stable, boarding, breeding, or training facility. This course may include field trips and the instructor may or may not provide transportation.

**ANSC 304 Livestock Feeding and Nutrition**

- **Units:** 3
- **Hours:** 36 hours LEC; 54 hours LAB
The fundamentals of digestion and absorption in both ruminants and non-ruminants are discussed. The nutritive value of feeds as they relate to the formulation of livestock rations will be emphasized including by-product feeding. Includes proper selection, evaluation, and utilization of feeds. This course may include field trips and off-site laboratories and the instructor may or may not provide transportation.

**ANSC 305 Equine Health**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** None.
- **Transferable:** CSU; UC
- **Catalog Date:** January 1, 2022

This course introduces the major organ systems of the horse. Emphasis is on preventive maintenance and necessary managerial practices needed to keep the equine athlete, broodmare or family horse in good health.

**ANSC 306 Basic Equine Handling**

- **Units:** 1
- **Hours:** 54 hours LAB
- **Prerequisite:** None.
- **Transferable:** CSU; UC
- **Catalog Date:** January 1, 2022

This course offers an introduction to the fundamentals of horse handling, with an emphasis on safety. Course covers identification of equine behavioral patterns, handling skills such as catching, haltering, tying, lunging and round-pen training, and recognizing how human/horse interactions affect equine behavior.

**ANSC 307 Farrier Science**

- **Units:** 3
- **Hours:** 54 hours LEC
- **Prerequisite:** None.
- **Transferable:** CSU
- **Catalog Date:** January 1, 2022

This course covers horseshoeing principles and practices, including basic anatomy and physiology of the horse's limbs and feet, horseshoeing terminology, and guidelines for assessing a proper horseshoeing job. This course focuses on causes, treatment and prevention of common lameness problems.

**ANSC 495 Independent Study in Animal Science**

- **Units:** 1 - 3
- **Hours:** 54 - 162 hours LAB
- **Prerequisite:** None.
- **Transferable:** CSU
- **Catalog Date:** January 1, 2022

An independent studies project involves an individual student or small group of students in study, research, or activities beyond the scope of regularly offered courses. See the current catalog section of “Special Studies” for full details of Independent Studies.

**ANSC 498 Work Experience in Animal Science**

- **Units:** 0.5 - 4
- **Hours:** 30 - 300 hours LAB
- **Prerequisite:** None.
- **Enrollment Limitation:** Students must be in a paid or unpaid internship, volunteer position or job related to career goals in Animal Science.
- **Transferable:** CSU
- **General Education:** AA/AS Area III(b)
- **Catalog Date:** January 1, 2022

This course provides students with opportunities to develop marketable skills in preparation for employment in their major field of study or advancement within their career. It is designed for students interested in work experience and/or internships in transfer level degree occupational programs. Course content includes understanding the application of education to the workforce; completion of required forms which document the student's progress and hours spent at the work site; and developing workplace skills and competencies. Appropriate level learning objectives are established by the student and the employer. During the semester, the student is required to participate in a weekly orientation and 37.5 hours of related paid work experience, or 30 hours of unpaid work experience for 0.5 unit. An additional 37.5 or 30 hours of related work experience is required for each additional 0.5 units. Students may take up to 16 units total across all Work Experience course offerings. This course may be taken up to four times when there are new or expanded learning objectives. Only one Work Experience course may be taken per semester.

**ANSC 499 Experimental Offering in Animal Science**

- **Units:** 0.5 - 4
- **Prerequisite:** None.
- **Transferable:** CSU
- **Catalog Date:** January 1, 2022

This is the experimental courses description.