

# ANIMAL SCIENCE BS

## More Information

### Advising Requirement

Advising is mandatory for this program. Consult your department advisor or program coordinator for information.

### E-advising Tools

Students are encouraged to use the interactive e-advising tools that have been designed to help them graduate within four years. These tools can be accessed through the Student Center.

The Bachelor of Science in Animal Science prepares students for diverse careers involving all aspects of food animal agriculture. Careers in food animal production, support industries such as animal health and nutrition companies, and pre-professional preparation for graduate or professional school studies are all possible directions for students obtaining this degree.

Students interested in food animal pre-veterinary medicine should pursue this degree. The degree emphasizes science-based study of food animal production, including nutrition, health, reproduction, anatomy/physiology, genetics, and meat science.

In addition, management level courses in several food animal species are offered. Students get hands-on learning about food animals such as sheep, beef and dairy cattle, and pigs at the University Farm.

## Grading Requirement

All courses taken to fulfill program course requirements must be taken for a letter grade except those courses specified by the department as credit/no credit grading only.

## Course Requirements for the Major: 79-80 units

Completion of the following courses, or their approved transfer equivalents, is required of all candidates for this degree. Courses in this program may complete more than one graduation requirement.

| Course                             | Title   | Units |
|------------------------------------|---|-------|
| <b>Lower-Division Requirements</b> |   |       |
| AGRI 180                           | The University Experience                           | 1     |
| ANSC 101                           | Introduction to Animal Science                      | 3     |
| ANSC 230                           | Animal Feeds and Nutrition                          | 3     |
| MATH 105                           | Introduction to Statistics                          | 3     |
| Select one of the following:       |   | 4     |
| CHEM 107                           | General Chemistry for Applied Sciences              |       |
| CHEM 111                           | General Chemistry I                                 |       |
| Select one of the following:       |   | 4     |
| CHEM 108                           | Organic Chemistry for Applied Sciences              |       |
| CHEM 112                           | General Chemistry II                                |       |
| Select one of the following:       |   | 3     |
| ABUS 101                           | Introduction to Agricultural Business and Economics |       |
| ABUS 261                           | Farm Accounting                                     |       |
| Select one of the following:       |   | 3-4   |

|   |  |    |
|---|--|----|
| BIOL 162  | Principles of Cellular and Molecular Biology                   |    |
| PSSC 101  | Introduction to Plant Science                                  |    |
| PSSC 250  | Introduction to Soil Science                                   |    |
| Select nine units from the following:   |  | 9  |
| Any combination of lower division courses in Agriculture (AGRI), Agricultural Engineering Technology (AGET), Animal Science (ANSC), Plant Science (PSSC), Agricultural Business (ABUS).   |  |    |
| BIOL 161  | Principles of Ecological, Evolutionary, and Organismal Biology |    |
| BIOL 163  | Principles of Physiology and Development                       |    |
| CHEM 270  | Organic Chemistry I  |    |
| PHYS 202A   | General Physics I  |    |
| PHYS 202B   | General Physics II   |    |
| <b>Upper-Division Requirements</b>  |  |    |
| AGRI 305  | Agricultural Genetics  | 3  |
| AGRI 482W   | Agricultural Issues (W)  | 3  |
| AGRI 490W   | Agricultural Experimental Research (W)                         | 4  |
| ANSC 330  | Animal Nutrition   | 3  |
| ANSC 340  | Reproductive Physiology of Domestic Animals                    | 3  |
| ANSC 360  | Animal Health and Disease                                      | 3  |
| ANSC 440  | Physiology of Domestic Animals                                 | 3  |
| Select one of the following:  |  | 3  |
| AGRI 331  | Agricultural Ecology   |    |
| PSSC 330  | Rangeland Resources and Management                             |    |
| PSSC 363  | Forage Crops   |    |
| <b>Animal Science Electives</b>   |  |    |
| Select nine units from the following (six units must be upper division):  |  | 9  |
| ANSC 271  | Principles of Beef Cattle Production                           |    |
| ANSC 272  | Principles of Sheep & Goat Production                          |    |
| ANSC 273  | Principles of Swine Production                                 |    |
| ANSC 274  | Principles of Dairy Production                                 |    |
| ANSC 301  | Intermediate Animal Systems                                    |    |
| ANSC 350  | Meat and the Consumer  |    |
| ANSC 374  | Organic Dairy Production and Management                        |    |
| ANSC 450  | Food Sanitation and Quality Control                            |    |
| ANSC 471  | Advanced Beef Cattle Management and Production                 |    |
| ANSC 474  | Dairy Production and Management                                |    |
| Select 12 units from the following:   |  | 12 |
| Any combination of upper division courses in Agriculture (AGRI), Agricultural Engineering Technology (AGET), Animal Science (ANSC), Plant Science (PSSC), Agricultural Business (ABUS). A minimum of three upper division ABUS units are recommended. |  |    |
| BIOL 360  | Genetics   |    |
| BIOL 416  | Vertebrate Physiology  |    |
| CHEM 370  | Organic Chemistry II   |    |
| CHEM 451  | Biochemistry I   |    |

**Total Units** **79-80**

## Honors in the Major

Honors in the Major is a program of independent work in your major. It requires 6 units of honors course work completed over two semesters.

The Honors in the Major program allows you to work closely with a faculty mentor in your area of interest on an original performance or research project. This year-long collaboration allows you to work in your field at a professional level and culminates in a public presentation of your work. Students sometimes take their projects beyond the University for submission in professional journals, presentation at conferences, or academic competition. Such experience is valuable for graduate school and professional life. Your honors work will be recognized at your graduation, on your permanent transcripts, and on your diploma. It is often accompanied by letters of commendation from your mentor in the department or the department chair.

Some common features of Honors in the Major program are:

- You must take 6 units of Honors in the Major course work. All 6 units are honors classes (marked by a suffix of H), and at least 3 of these units are independent study (399H, 499H, 599H) as specified by your department. You must complete each class with a minimum grade of B.
- You must have completed 9 units of upper-division course work or 21 overall units in your major before you can be admitted to Honors in the Major. Check the requirements for your major carefully, as there may be specific courses that must be included in these units.
- Your cumulative GPA should be at least 3.5 or within the top 5% of majors in your department.
- Your GPA in your major should be at least 3.5 or within the top 5% of majors in your department.
- Most students apply for or are invited to participate in Honors in the Major during the second semester of their junior year. Then they complete the 6 units of course work over the two semesters of their senior year.
- Your honors work culminates with a public presentation of your honors project.

While Honors in the Major is part of the Honors Program, each department administers its own program. Please contact your major department or major advisor to apply.

See Bachelor's Degree Requirements (<https://catalog.csuchico.edu/undergraduate-requirements/bachelors-degree-requirements/>) for complete details on general degree requirements. A minimum of 39 units, including those required for the major, must be upper division.

## General Education Requirements: 48 units

See General Education (<https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/>) and the Class Schedule (<http://www.csuchico.edu/schedule/>) for the most current information on General Education Requirements and course offerings.

This major has approved GE modification(s). See below for information on how to apply these modification(s).

- ANSC 101 is an approved major course substitution for Life Science (B2).

- AGRI 482W is an approved major course substitution for Upper-Division Social Sciences (UD-D).

## Diversity Course Requirements: 6 units

You must complete a minimum of two courses that focus primarily on cultural diversity. At least one course must be in U.S. Diversity (USD) and at least one in Global Cultures (GC). See Diversity Requirements (<https://catalog.csuchico.edu/undergraduate-requirements/diversity-requirements/>) for a full list of courses. Most courses taken to satisfy these requirements may also apply to General Education (<https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/>).

## Upper-Division Writing Requirement

Writing Across the Curriculum (EM 17-009 (<http://www.csuchico.edu/prs/EMs/2017/17-009.shtml/>)) is a graduation requirement and may be demonstrated through satisfactory completion of four Writing (W) courses, two of which are designated by the major department. See Mathematics/Quantitative Reasoning and Writing Requirements (<https://catalog.csuchico.edu/undergraduate-requirements/mathematicsquantitative-reasoning-writing-requirements/>) for more details on the four courses. The first of the major designated Writing (W) courses is listed below.

- AGRI 490W Agricultural Experimental Research (W)

The second major-designated Writing course is the Graduation Writing Assessment Requirement (GW) (EO 665 (<https://calstate.policystat.com/policy/9585618/latest/>)). Students must earn a C- or higher to receive GW credit. The GE Written Communication (A2) (<https://catalog.csuchico.edu/colleges-departments/undergraduate-education/general-education/#A2>) requirement must be completed before a student is permitted to register for a GW course.