DAIRY SCIENCE (BS)

Degree Requirements and Curriculum

In addition to the program requirements listed on this page, students must also satisfy requirements outlined in more detail in the Minimum Requirements for Graduation (https://catalog.calpoly.edu/academic-standards-policies/general-requirements-bachelors-degree/) section of this catalog, including:

- 40 units of upper-division courses
- 2.0 GPA
- Graduation Writing Requirement (GWR)
- U.S. Cultural Pluralism (USCP)

Note: No Major, Support, or Concentration courses may be selected as credit/no credit. Only one General Education course may be selected as credit/no credit. In addition, no more than 12 units of cooperative or internship courses can count towards your degree requirements.

Code	Title	Units
MAJOR COURSES		
ASCI 1100	Introduction to the Animal Sciences	1
ASCI 1101	Principles of Animal Physiology	3
ASCI 2220	Animal Nutrition and Feeding	3
ASCI 3302	Animal Genetics	3
ASCI 3340	Animal Welfare and Ethics	3
ASCI 3355	Ruminant Nutrition	3
ASCI 3363	Professional Development in the Animal Sciences	1
DSCI 2202	Dairy Promotion and Marketing	3
DSCI 2229	General Dairy Manufacturing (5B & 5C) [1]	4
DSCI 2230	General Dairy Husbandry	3
DSCI 3321	Lactation Physiology	3
DSCI 3330	Dairy Cattle Reproductive Management and Artificial Insemination	3
DSCI 3344	Dairy Microbiology	3
DSCI 4422	Breeding and Genetics of Dairy Cattle	3
DSCI 4432	Advanced Dairy Herd Management	4
Senior Project		
ASCI 4477	Senior Project - Research Experience in Animal Science	2
or ASCI 4479	Senior Project - Current Issues in Animal Science	
Upper-Division Designated Electives		
Select from the following:		6
DSCI 4401	Physical and Chemical Properties of Dairy Products	
DSCI 4402	Quality Assurance and Control of Dairy Products	
DSCI 4410	Dairy Nutrition	
DSCI 4412	Dairy Farm Consultation	
Approved Electives		
Select from the following: [2]		18
Select any ASCI or DSCI courses		
AGB 2212	Agricultural Economics	
AGB 2214	Agribusiness Financial Accounting	
AGB 3301	Food Marketing	
AGB 3369	Agricultural Personnel Management	
AGC 4404	Applications of Agricultural Leadership	
BRAE 1141	Agricultural Machinery Safety	
BUS 2212	Financial Accounting for Nonbusiness Majors	
CHEM 1122	Fundamentals of Chemical Reactivity	
CHEM 2240	Organic Chemistry: Fundamentals and Applications	

CHEM 2242	Organic Chemistry I	
CHEM 2244	Organic Chemistry II	
CHEM 3350	Biochemistry: Fundamentals and Applications	
CHEM 3352	Biochemistry	
COMS 3301	Business and Professional Communication	
FDSC 1110	Introduction to Food Science and Sustainability	
FDSC 3330	Food Processing and Engineering I	
FDSC 3340	Food Quality Assurance and Prerequisite Programs	
FDSC 3345	Food Safety and Sanitation	
FDSC 4420	Sensory Evaluation of Food	
FSN 1111	Elements of Food Processing	
FSN 2245	Elements of Food Safety	
JOUR 2203	News Reporting and Writing	
MCRO 3342	Public Health Microbiology	
MCRO 4421	Food Microbiology	
NR 1141	Introduction to Forest Ecosystem Management	
PHYS 1121	College Physics I	
PHYS 1123	College Physics II	
PLSC 1150	California Row Crop Production	
STAT 3520	Statistics II	
Any courses used in the following minors:		
Agribusiness		
Agricultural Communication		
Agricultural Education		
Agricultural Leadership		
Biotechnology		
Crop Science		
Environmental Soil Science		
Food Science		
Meat Science and Processing		
Rangeland Ecology and Management		
Spanish		
Water Science		
SUPPORT COURSES		
BIO 1151	Life: Molecules and Cells	4
CHEM 1120	Fundamentals of Chemical Structure and Properties (5A) [1]	4
MATH 1006	College Algebra (2) [1]	3
STAT 1110	Applied Statistical Concepts and Methods	3
GENERAL EDUCATION (GE)		
(See GE program requirements below)		33
FREE ELECTIVES		
Free Electives [3, 4]		4
Total Units		**120**

1 Required in Major or Support; also satisfies General Education (GE) requirement.

2 If a course is taken to meet a Major or Support requirement, it cannot be double-counted as an Approved Elective.

3 If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.

General Education (GE) Requirements

General Education (GE) Requirements

- 43 units required, 10 of which are specified in Major and/or Support.
- If any of the remaining 33 Units is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.
- See the complete GE course listing (https://catalog.calpoly.edu/academic-standards-policies/general-requirements-bachelors-degree/#generaleducationtext).
- A grade of C- or better is required in one course in each of the following GE Areas: 1A (English Composition), 1B (Critical Thinking), 1C (Oral Communication), and 2 (Mathematics and Quantitative Reasoning).

Lower-Division General Education

Area 1	**English Communication and Critical Thinking**	
1A	Written Communication	3
1B	Critical Thinking	3
1C	Oral Communication	3
Area 2	**Mathematics and Quantitative Reasoning**	
2	Mathematics and Quantitative Reasoning (3 units in Support) [1]	0
Area 3	**Arts and Humanities**	
3A	Arts	3
3B	Humanities: Literature, Philosophy, Languages other than English	3
Area 4	**Social and Behavioral Sciences (Area 4 courses must come from at least two different course prefixes.)**	
4A	American Institutions (Title 5, Section 40404 Requirement)	3
4B	Social and Behavioral Sciences	3
Area 5	**Physical and Life Sciences**	
5A	Physical Sciences (3 units in Support) [1]	0
5B	Life Sciences (3 units in Major) [1]	0
5C	Laboratory (may be embedded in a 5A or 5B course) (1 units in Major) [1]	0
Area 6	**Ethnic Studies**	
6	Ethnic Studies	3
Upper-Division General Education		
Upper-Division 2/5	Mathematics and Quantitative Reasoning or Physical and Life Sciences	3
Upper-Division 3	Arts and Humanities	3
Upper-Division 4	Social and Behavioral Sciences (Area 4 courses must come from at least two different course prefixes.)	3
Total Units		**33**

[1] Required in Major or Support; also satisfies General Education (GE) requirement.