# South Dakota State University

**Bachelor of Science**
**Major: Dairy Manufacturing**
**2025-2026 Sample 4-Year Plan**
**Total Degree Requirements: 120 credits**

**Student** _____ **Student ID#** _____ **Student Phone #** _____

**Advisor** _____ **Minimum GPA** _____ **Minor/Career Interest(s)** _____

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the Undergraduate Catalog.

## FIRST YEAR

### Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| CHEM 106-106L or<br>CHEM 112-112L | Chemistry Survey and Lab (SGR #6) or<br>General Chemistry I and Lab (SGR #6) | p. MATH placement<br>p. MATH 114 or higher | 3,1<br>3,1 | F/S<br>F/S | |
| DS 119 | Opportunities in Dairy and Food Science | | 1 | F | |
| DS 120 | Survey of Dairy and Food Science Industries | | 1 | F | |
| DS 130-130L | Introduction to Dairy Science and Lab | | 2,1 | F/S | |
| MATH 114 or<br>MATH 115 | College Algebra (3 cr) (SGR #5) or<br>Precalculus (5 cr) (SGR #5) | p. Placement<br>p. MATH 114 or placement | 3 – 5 | | |
| SGR #1 or<br>SGR #2 | Written Communication (SGR #1) or<br>Oral Communication (SGR #2) | p. Placement | 3 | | |
| | | **Total Credit Hours** | 15 - 17 | | |

### Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| CHEM 108-108L | Organic and Biochemistry and Lab | p. CHEM 106/L; CHEM 112/L also accepted as pre-req | 4,1 | F/S | |
| DS 496 | Field Experience | | 3 | | |
| SGR #2 or<br>SGR #1 | Oral Communication (SGR #2) or<br>Written Communication (SGR #1) | p. Placement | 3 | | |
| SGR #3 | Social Science (SGR #3) – Civics Requirement | Select from the designated list of courses to fulfill civics requirement | 3 | | |
| SGR #4 | Arts and Humanities (SGR #4) | | 3 | | |
| | | **Total Credit Hours** | 17 | | |

## SECOND YEAR

### Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| BIOL 101-101L or<br>BIOL 151-151L | Biology Survey I and Lab (3 cr) (SGR #6) or<br>General Biology I and Lab (4 cr) (SGR #6) | BIOL 151/L preferred | 2,1<br>3,1 | F/S<br>F/S(I) | |
| DS 202 | Dairy Products Judging | | 1 | F | |
| Food Science Elective | Select a course with the FS prefix | p. FS 251 suggested | 3 | F | |
| PHYS 101-101L or<br>PHYS 111-111L | Survey of Physics and Lab or<br>Introduction to Physics I and Lab | p. MATH 114 or higher | 3,1<br>3,1 | F/S<br>F | |
| SGR #1 | Written Communication (SGR #1) | p. ENGL 101 | 3 | | |
| | | **Total Credit Hours** | 14 – 15 | | |

### Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| ACCT 210 | Principles of Accounting I | | 3 | | |
| BIOL 103-103L or<br>BIOL 153-153L | Biology Survey II and Lab (3 cr) or<br>General Biology II and Lab (4 cr) | BIOL 153/L Preferred | 2,1<br>3,1 | F(I)/S<br>F(I)/S | |
| ECON 201 or<br>ECON 202 | Principles of Microeconomics (SGR #3) or<br>Principles of Macroeconomics (SGR #3) | | 3 | | |
| MICR 231-231L | General Microbiology and Lab | p. CHEM 106/L or CHEM 112/L | 3,1 | F/S | |
| SGR #4 | Arts and Humanities (SGR #4) | | 3 | | |
| | | **Total Credit Hours** | 16 – 17 | | |

**Information Subject to Change. This is not a contract.**

p. = Course Prerequisite, I = Internet
Semester: F = Fall, S = Spring, SU = Summer

## THIRD YEAR

### Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| DS 400-400L | Dairy Chemistry and Analysis and Lab | p. DS 130/L and CHEM 106/L or CHEM 112/L; CHEM 108 or concurrent | 3,2 | F | |
| DS 460-460L | Dairy Products Processing I and Lab | p. DS 130/L and MICR 231/L or MICR 233/L | 4,1 | F odd | |
| MICR 311-311L | Food Microbiology and Lab | p. MICR 231/L or MICR 233/L | 2,2 | F | |
| | | **Total Credit Hours** | 14 | | |

### Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| DS 461-461L | Dairy Product Processing II and Lab | p. DS 130/L and MICR 231/L or MICR 233/L | 4,1 | S even | |
| Business Elective | Select from ACCT, AGEC, BADM, BLAW, ECON, ENTR, DSCI, FIN, HRM, MGMT, MKTG, or STAT prefix | Excludes courses completed as a program requirement | 3 | | |
| General Elective | Select from any discipline | | 3 | | |
| General Elective | Select from any discipline | | 3 | | |
| General Elective | Select from any discipline | | 2 | | |
| | | **Total Credit Hours** | 16 | | |

### Summer

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| DS 494 or DS 498 | Internship or Undergraduate Research/Scholarship | 2nd and/or 3rd summer | 3 | | |
| | | **Total Credit Hours** | 3 | | |

## FOURTH YEAR

### Fall

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| AST 443-443L | Food Processing and Engineering Fundamentals and Lab | | 2,1 | F | |
| DS 421-421L | Dairy Plant Management and Lab | p. Jr Standing | 3,1 | F even | |
| DS 490 | Seminar | p. Sr Standing | 1 | F | |
| General Elective | Select from any discipline | | 3 | | |
| General Elective | Select from any discipline | | 3 | | |
| | | **Total Credit Hours** | 14 | | |

### Spring

| Prefix + Number | Course Title | Prerequisites/Comments | Credits | Semester | Grade |
|---|---|---|---|---|---|
| DS 301-301L | Dairy Microbiology and Lab | p. MICR 231/L or MICR 233/L | 2,2 | S odd | |
| General Elective | Select from any discipline | | 3 | | |
| General Elective | Select from any discipline | | 3 | | |
| General Elective | Select from any discipline to reach minimum of 120 total credits | | 1 - 3 | | |
| | | **Total Credit Hours** | 11 - 13 | | |

## COMMENTS/NOTES

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the Honors program requirements.

The exact number of general elective credits is dependent on choice of Biology sequence.