South Dakota State University

Bachelor of Science
Major: Food Science
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 112-112L	General Chemistry I and Lab (SGR #6)	p. MATH 114 or higher	3,1	F/S	
DS 119	Opportunities in Dairy and Food Science		1	F	
DS 120	Survey of Dairy and Food Science Industries		1	F	
DS 496	Field Experience		3		
MATH 121-121L or MATH 123	Survey of Calculus and Lab (5 cr) or Calculus I (4 cr)	p. MATH 114, 115, 120 or placement p. MATH 115, 120 or placement	4 -5		
SGR #1 or SGR #2	Written Communication (SGR #1) or Oral Communication (SGR #2)	Placement	3		
		Total Credit Hours	16 - 17		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AS 241-241L or DS 231	Introduction to Meat Science and Lab or Dairy Foods		2,1 3	F/S S	
CHEM 114-114L	General Chemistry II and Lab (SGR #6)	p. CHEM 112/L, MATH 114 or higher	3,1	F/S	
ECON 201 or ECON 202	Principles of Microeconomics (SGR #3) or Principles of Macroeconomics (SGR #3)		3	F/S/SU F/S/SU	
FS 101	Introduction to Food Science		3	S	
SGR #2 or SGR #1	Oral Communication (SGR #2) or Written Communication (SGR #1)	p. Placement	3		
		Total Credit Hours	16		

SECOND YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 151-151L	General Biology I and Lab		3,1	F/S(I)	
CHEM 326-326L	Organic Chemistry I and Lab	p. CHEM 114/L	3,1	F/S	
FS 251	Food Safety and Quality Management Systems		3	F	
PHYS 111-111L	Introduction to Physics I and Lab	p. MATH 114 or higher; PHYS 211/L also accepted (p. MATH 123 or higher)	3,1	F	
		Total Credit Hours	15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
BIOL 153-153L	General Biology II and Lab	Recommended, not required	3,1	F(I)/S	
CHEM 328-328L	Organic Chemistry II and Lab	p. CHEM 326/L	3,1	F/S	
MICR 231-231L	General Microbiology and Lab	p. CHEM 112/L	3, 1	F/S	
PHYS 113-113L	Introduction to Physics II and Lab	p. PHYS 111/L recommended, not required	3,1	S	
		Total Credit Hours	16		

Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
FS 494 or FS 498	Internship or Undergraduate Research	Summer after 2nd or 3rd year	3		
		Total Credit Hours	3		

Information Subject to Change. This is not a contract.

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

THIRD YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AST 443-443L	Food Processing and Engineering Fundamentals and Lab		2,1	F	
CHEM 464	Biochemistry I	p. CHEM 328/L	3	F	
FS 351-351L	Principles of Food Processing and Lab	p. FS 251 and CHEM 114/L	2,1	F odd	
MICR 311-311L	Food Microbiology and Lab	p. MICR 231/L or MICR 233/L	2,2	F	
SGR #1	Written Communication (SGR #1)	p. ENGL 101	3		
		Total Credit Hours	16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CHEM 466	Lab Methods – Biochemistry	**Optional** to fulfill Chemistry minor	1	S	
FS 451-451L	New Food Product Development and Lab	p. FS 351/L and MICR 311/L	3,1	S even	
SGR #3	Social Sciences (SGR #3) – Civics Requirement	Select from the designated list of courses to fulfill civics requirement	3		
SGR #4	Arts and Humanities (SGR #4)	See approved list	3		
STAT 281	Introduction to Statistics (SGR #5)	p. MATH 114 or higher	3	F/S/SU	
		Total Credit Hours	14		

Summer

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
FS 494 or FS 498	Internship or Undergraduate Research/Scholarship	If not taken after 2nd year	3		
		Total Credit Hours	3		

FOURTH YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
DS 421-421L	Dairy Plant Management and Lab	p. Junior Standing	3,1	F even	
DS 490	Seminar	p. Senior Standing	1	F	
FS 341-341L	Applied Food Science and Lab	p. FS 101 and CHEM 326/L	3,1	F even	
FS 400-400L	Food Chemistry and Analysis and Lab	p. FS 101 and CHEM 326/L	3,2	F	
		Total Credit Hours	14		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AGEC 366	Food Law	Cross Listed: BLAW 366	3	S odd	
DS 301-301L	Dairy Microbiology and Lab	p. MICR 231/L **Optional** to fulfill Food Safety minor Or select electives to reach 120 total credits	2,2	S odd	
NUTR 315	Human Nutrition	p. CHEM 112/L	3	F/S	
SGR #4	Arts and Humanities (SGR #4)	See approved list	3		
		Total Credit Hours	13		

COMMENTS/NOTES

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

AS 450 – Meat Product Safety and HACCP could alternatively be used to fulfill the Food Safety minor in place of DS 301/L. It is offered during the Fall semester of Even numbered years – 3 credits.