

MAJOR IN FERMENTATION SCIENCE AND TECHNOLOGY

catalog/colleges/health-human-sciences/food-science-human-nutrition/fermentation-food-science-major/).

Requirements

No new students are being admitted to this major. Please visit the Major in Fermentation and Food Science (<http://catalog.colostate.edu/general->

Effective Fall 2022

Freshman

		AUCC	Credits
CO 150	College Composition (GT-CO2)	1A	3
FSHN 150	Survey of Human Nutrition		3
MATH 117	College Algebra in Context I (GT-MA1)	1B	1
MATH 118	College Algebra in Context II (GT-MA1)	1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	1B	1
MATH 125	Numerical Trigonometry (GT-MA1)	1B	1
SOC 100	Introduction to Sociology (GT-SS3)	3C	3
Select one group from the following:			4
Group A:			
BZ 110	Principles of Animal Biology (GT-SC2)	3A	
BZ 111	Animal Biology Laboratory (GT-SC1)	3A	
Group B:			
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	
Select one group from the following:			5-8
Group A:			
CHEM 107	Fundamentals of Chemistry (GT-SC2)	3A	
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	3A	
Group B:			
CHEM 111	General Chemistry I (GT-SC2)	3A	
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	
CHEM 113	General Chemistry II		
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)		1C	3
Foundations and Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#foundations-perspectives)		3B, 3D	3

Total Credits

28-31

Sophomore

CHEM 245	Fundamentals of Organic Chemistry		4
CHEM 246	Fundamentals of Organic Chemistry Laboratory		1
FTEC 210	Science of Food Fermentation		3
FTEC 292	Introduction to Fermentation and Food Science		1
MIP 300	General Microbiology		3
MIP 302	General Microbiology Laboratory		2
PH 121	General Physics I (GT-SC1)	3A	5
SPCM 200	Public Speaking		3
Select one course from the following:			3-4
BUS 150	Business Computing Concepts and Applications		
CS 110	Personal Computing		
Foundations and Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#foundations-perspectives)		3B, 3D	6

Total Credits

31-32

Junior

BC 351	Principles of Biochemistry		4
FTEC 350	Fermentation Microbiology	4B	2
FTEC 360	Brewing Processes	4A	4
FTEC 447	Food Chemistry		2
MIP 334	Food Microbiology		3
RRM 330	Alcohol Beverage Control and Management		2
Select one course from the following:			3
CO 300	Writing Arguments (GT-CO3)	2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)	2	
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)	2	
JTC 300	Strategic Writing and Communication (GT-CO3)	2	
Select one course from the following:			3
STAT 201	General Statistics (GT-MA1)	1B	
STAT 204	Statistics With Business Applications (GT-MA1)	1B	
Electives (See list below) ¹			5-9
Total Credits			28-32

Senior

FTEC 400	Food Safety		3
FTEC 422	Brewing Science I		4
FTEC 460	Brewing Science II		4
FTEC 465	Food Production Operations		3
FTEC 492	Senior Seminar Fermentation and Food Science	4C	2
FTEC 496A	Group Study Fermentation Science: Current Issues		1
FTEC 496B	Group Study Fermentation Science: Functional Foods in Health		1
Electives (See list below) ¹			11
Total Credits			29
Program Total Credits:			120

Department Elective Possibilities

Code	Title	AUCC	Credits
FTEC 110	Food-From Farm to Table		3
FTEC 351	Fermentation Microbiology Laboratory		2
FTEC 375	Introduction to Fermentation Unit Operations		4
FTEC 430	Sensory Evaluation of Food Products		2
FTEC 440	Packaging Technology		2
FTEC 487	Internship		3
FTEC 495	Independent Study		1-6
MATH 126	Analytic Trigonometry (GT-MA1)	1B	1
MATH 141	Calculus in Management Sciences (GT-MA1)	1B	3-4
or MATH 155	Calculus for Biological Scientists I (GT-MA1)		
MGT 305	Fundamentals of Management		3
MGT 430	Leadership and Social Responsibility		3
MIP 335	Food Microbiology Laboratory		2
RRM 400	Food and Society		3

¹ Students may select from Department Elective Possibilities or may select any course as a free elective. Select enough elective credits to bring the program total to 120 credits, of which at least 42 must be upper-division (300- to 400-level).

Major Completion Map

Freshman

Semester 1		Critical	Recommended	AUCC	Credits
FSHN 150	Survey of Human Nutrition	X			3
MATH 117	College Algebra in Context I (GT-MA1)	X		1B	1
MATH 118	College Algebra in Context II (GT-MA1)	X		1B	1
MATH 124	Logarithmic and Exponential Functions (GT-MA1)	X		1B	1
Select one group from the following:					4
Group A:					
BZ 110	Principles of Animal Biology (GT-SC2)	X		3A	
BZ 111	Animal Biology Laboratory (GT-SC1)	X		3A	
Group B:					
LIFE 102	Attributes of Living Systems (GT-SC1)	X		3A	
Select one group from the following:					5
Group A:					
CHEM 107	Fundamentals of Chemistry (GT-SC2)	X		3A	
CHEM 108	Fundamentals of Chemistry Laboratory (GT-SC1)	X		3A	
Group B:					
CHEM 111	General Chemistry I (GT-SC2)	X		3A	
CHEM 112	General Chemistry Lab I (GT-SC1)	X		3A	
Total Credits					15

Semester 2		Critical	Recommended	AUCC	Credits
CO 150	College Composition (GT-CO2)	X		1A	3
MATH 125	Numerical Trigonometry (GT-MA1)	X		1B	1
SOC 100	Introduction to Sociology (GT-SS3)			3C	3
Select Group B if Group B selected first semester.					0-3
Group B:					
CHEM 113	General Chemistry II	X			
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)				1C	3
Foundations and Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#foundations-perspectives)				3B, 3D	3
Total Credits					13-16

Sophomore

Semester 3		Critical	Recommended	AUCC	Credits
CHEM 245	Fundamentals of Organic Chemistry	X			4
CHEM 246	Fundamentals of Organic Chemistry Laboratory	X			1
FTEC 210	Science of Food Fermentation	X			3
Select one course from the following:					3-4
BUS 150	Business Computing Concepts and Applications				
CS 110	Personal Computing				
Foundations and Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#foundations-perspectives)				3B, 3D	3
Total Credits					14-15

Semester 4		Critical	Recommended	AUCC	Credits
FTEC 292	Introduction to Fermentation and Food Science	X			1
MIP 300	General Microbiology				3

MIP 302	General Microbiology Laboratory				2
PH 121	General Physics I (GT-SC1)	X		3A	5
SPCM 200	Public Speaking				3
Foundations and Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#foundations-perspectives)				3B, 3D	3
Total Credits					17
Junior					
Semester 5		Critical	Recommended	AUCC	Credits
BC 351	Principles of Biochemistry	X			4
FTEC 350	Fermentation Microbiology	X		4B	2
FTEC 447	Food Chemistry				2
RRM 330	Alcohol Beverage Control and Management				2
Select one course from the following:					3
CO 300	Writing Arguments (GT-CO3)			2	
CO 301B	Writing in the Disciplines: Sciences (GT-CO3)			2	
CO 301C	Writing in the Disciplines: Social Sciences (GT-CO3)			2	
JTC 300	Strategic Writing and Communication (GT-CO3)			2	
Total Credits					13
Semester 6		Critical	Recommended	AUCC	Credits
FTEC 360	Brewing Processes	X		4A	4
MIP 334	Food Microbiology				3
Select one course from the following:					3
STAT 201	General Statistics (GT-MA1)		X	1B	
STAT 204	Statistics With Business Applications (GT-MA1)			1B	
Electives					5-9
Total Credits					15-19
Senior					
Semester 7		Critical	Recommended	AUCC	Credits
FTEC 400	Food Safety				3
FTEC 422	Brewing Science I				4
FTEC 465	Food Production Operations	X			3
FTEC 496A	Group Study Fermentation Science: Current Issues				1
FTEC 496B	Group Study Fermentation Science: Functional Foods in Health				1
Electives					3
Total Credits					15
Semester 8		Critical	Recommended	AUCC	Credits
FTEC 460	Brewing Science II	X			4
FTEC 492	Senior Seminar Fermentation and Food Science	X		4C	2
Electives					8
The benchmark courses for the 8th semester are the remaining courses in the entire program of study					X
Total Credits					14
Program Total Credits:					120