

Year 1

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B.Sc. in Food Science (Science Option)

Course No.	Course Name	Credit Hours
AGRI 1600	Introduction to Agrifood Systems	3
BIOL 1020	Biology 1: Principles and Themes	3
BIOL 1030	Biology 2: Biological Diversity, Function and Interactions	3
CHEM 1100	Introductory Chemistry 1: Atomic and Molecular Structure and	3
	Energetics	2
CHEM 1110	Introductory Chemistry 2: Interaction, Reactivity, and Chemical	3
CUEN (120 ¹	Properties	
or CHEM 1130 ¹	or Introduction to Organic Chemistry	2
ECON 1010	Introduction to Microeconomic Principles	3
HNSC 1200	Food: Facts and Fallacies	3
HNSC 1210	Nutrition for Health and Changing Lifestyles	3
MATH 1300 ²	Vector Geometry and Linear Algebra	3
or MATH 1210 ²	or Techniques of Classical and Linear Algebra	2
MATH 1500 ³	Introduction to Calculus	3
or MATH 1510 ³	or Applied Calculus 1	
or MATH 1524 ³	or Mathematics for Management and Social Sciences	20
Total Credit Hours		30
Year 2		
Course No.	Course Name	Credit Hours
ABIZ 1000	Introduction to Agribusiness Management	3
AGRI 2030	Technical Communications	3
AGRI 2400 ⁴	Experimental Methods in Agricultural and Food Sciences	3
CHEM 1110	Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties	3
or CHEM 1130 ¹	or Introduction to Organic Chemistry	
CHEM 2730/	Elements of Biochemistry 1	3
MBIO 2730 ⁵		
CHEM 2740 ⁶	Introduction to the Biochemistry Laboratory	3
FOOD 2500	Food Chemistry	3
MBIO 1010 ⁷	Microbiology 1	3
Free Electives/Co-op ⁸		6
Total Credit Hours		30
Year 3		
Course No.	Course Name	Credit Hours
BIOE 3530	Engineering Fundamentals	3
FOOD 3010	Food Process 1	3
FOOD 3210	Food Engineering Fundamentals	3
FOOD 4150	Food Microbiology 1	3
FOOD 4160	Food Analysis 1	3
FOOD 4250	Food Analysis 2	3
MKT 2210	Fundamentals of Marketing	3

Note: Any discrepancies between this document and the Academic Calendar, the Academic Calendar takes precedent.



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Restricted Electives ⁹	6
Free Electives/Co-op ⁸	3
Total Credit Hours	30

Year 4

Course No.	Course Name	Credit Hours
FOOD 4010	Food Process 2	3
FOOD 4100	Current Issues in Food and Human Nutrition	3
FOOD 4200	Quality Control in Foods	3
FOOD 4510	Food Product Development	3
Restricted Elective ⁹		3
Free Electives/Co-op ⁸		15
Total Credit Hours		30

Notes:

1. CHEM 2100 (Organic Chemistry 1: Foundations of Organic Chemistry) can be substituted for CHEM 1130 (Introduction to Organic Chemistry).

2. Students are recommended to take one of MATH 1300 or MATH 1210 however may also substitute MATH 1220 to meet the requirement.

3. Students are recommended to take one of MATH 1500 or MATH 1510 or MATH 1524 however may also substitute MATH 1230 to meet the requirement.

4. STAT 2000 (Basic Statistical Analysis 2) can be substituted for AGRI 2400 (Experimental Methods in Agricultural and Food Sciences).

5. Under required courses, students can take either CHEM 2730/MBIO 2730 (Elements of Biochemistry 1) or CHEM 2700/MBIO 2700 (Biochemistry I: Biomolecules and an Introduction to Metabolic Energy).

6. Under required courses, students can take either CHEM 2740 (Introduction to the Biochemistry Laboratory) or CHEM 2720 (Principles and Practices of the Modern Biochemistry Laboratory).

7. Students who already have credit for MBIO 1220 (Essentials of Microbiology) before entering the program can use it towards MBIO 1010 (Microbiology 1).

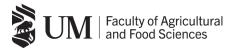
8. There are 24 credit hours of Free Electives required for the Food Science program. Students may apply for the <u>Cooperative Education Program</u>. Two work terms are required to graduate with Co-op designation. Co-op courses (3 credit hours each) are used towards Free Electives.

9. There are 9 credit hours of Restricted Electives required for the Food Science, science option. Students must complete:

Restricted Electives

Group 1 – Food Safety: choose one course from the following:		3
FOOD 1000	Food Safety, Today and Tomorrow	
FOOD 4310*	Introduction to HAACP	
FOOD 4500	Food Safety and Regulations	
Group 2 – General: choose two courses from the following: 6		6
FOOD 3160*	Frozen Dairy Products	

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FOOD 3170*	Cheese and Fermented Milk Products
FOOD 3220*	Grains for Food and Beverage
FOOD 3500*	Processing of Animal Food Products
FOOD 4230	Food Research
FOOD 4260	Water Management in Food Processing
FOOD 4540	Functional Foods and Nutraceuticals
HNSC 4270*	Sensory Evaluation

*These courses are usually offered every 2nd year - planning ahead is important.

