UM | Faculty of Agricultural and Food Sciences

Effective September 2023

B.Sc. in Food Science (Business Option)

Year 1

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 Energetics	3
CHEM 1110 or CHEM 1130[1]	Introductory Chemistry 2: Interaction, Reactivity, and Chemical Properties or Introduction to Organic Chemistry	3
ECON 1010	Introduction to Microeconomic Principles	3
ECON 1020	Introduction to Macroeconomic Principles	3
HNSC 1200	Food: Facts and Fallacies	3
MATH 1300[2] or MATH 1210[2]	Vector Geometry and Linear Algebra or Techniques of Classical and Linear Algebra	3
MATH 1524[3] or MATH 1500[3] or MATH 1510[3]	Introductory Calculus for Management and Social Sciences or Introduction to Calculus or Applied Calculus 1	3
Total Credit Hours		30

Year 2

Course No.	Course Name	Credit Hours
ABIZ 1000	Introduction to Agribusiness Management	3
ACC 1100	Introductory Financial Accounting	3
AGRI 2030	Technical Communications	3
AGRI 2400[4]	Experimental Methods in Agricultural and Food Sciences	3
CHEM 2730/ MBIO 2730[5]	Elements of Biochemistry 1	3
CHEM 2740[6]	Introduction to the Biochemistry Laboratory	3
FOOD 2500	Food Chemistry	3
HNSC 1210	Nutrition for Health and Changing Lifestyles	3
HRIR 2440 or ABIZ 2620[7]	Human Resource Management or Agricultural Human Resource Management	3
Free Elective[8]		3
Total Credit Hours		30

Year 3

Course No.	Course Name	Credit Hours
ABIZ 2510[9]	Introduction to Agricultural and Food Marketing	3
ECON 2010	Microeconomic Theory 1	3
ECON 2020	Macroeconomic Theory 1	3
FOOD 3010	Food Process 1	3
FOOD 4150	Food Microbiology 1	3
FOOD 4160	Food Analysis 1	3

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

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FOOD 4500	Food Safety and Regulations	3
MKT 2210[9]	Fundamentals of Marketing	3
Free Electives[8]		6
Total Credit Hours		30

Year 4

Course No.	Course Name	Credit Hours
ABIZ 3510	Economics of Food Policy	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 (Group 2)[9]		3
Free Electives[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. ABIZ 2620 (Agricultural Human Resource Management) can be substituted for HRIR 2440 (Human Resource Management).

8. There are 24 credit hours of Free Electives required for the Food Science program. Students may apply for the Cooperative Education Program. 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, business option. Students must complete:

Restricted Electives		Credit Hours
Group 1 – Marketing: (2 courses built into progression charts)		6
ABIZ 2510	Introduction to Agricultural and Food Marketing	
MKT 2210	Fundamentals of Marketing	
Group 2 – General: choose one course from the following:		3
FOOD 1000	Food Safety, Today and Tomorrow	

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FOOD 3160*	Frozen Dairy Products
FOOD 3170*	Cheese and Fermented Milk Products
FOOD 3220*	Grains for Food and Beverage
FOOD 3500*	Processing of Animal Food Products
FOOD 4250	Food Analysis 2
FOOD 4260	Water Management in Food Processing
FOOD 4310*	Introduction to HAACP
FOOD 4540	Functional Foods and Nutraceuticals

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