UM | Faculty of Agricultural and Food Sciences

Effective September 2023

B.Sc. in Agriculture (Agronomy)

Year 1

Course No.	Course Name	Credit Hours
ABIZ 1000	Introduction to Agribusiness Management	3
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
HNSC 1200 or HNSC 1210	Food: Facts and Fallacies or Nutrition for Health and Changing Lifestyles	3
MATH 1300[2] or MATH 1210[2] or MATH 1500[2] or MATH 1510[2] or MATH 1524[2]	Vector Geometry and Linear Algebra or Techniques of Classical and Linear Algebra or Introduction to Calculus or Applied Calculus 1 or Mathematics for Management and Social Sciences	3
Free Elective[3]		3
Total Credit Hours		30

Year 2

Course No.	Course Name	Credit Hours
ABIZ 2510	Introduction to Agricultural and Food Marketing	3
AGEC 2370/BIOL 2300	Principles of Ecology	3
AGRI 2030	Technical Communications	3
AGRI 2400	Experimental Methods in Agricultural and Food Sciences	3
BIOL 2242	The Flowering Plants	3
PLNT 2500	Crop Production	3
PLNT 2520/BIOL 2500	Genetics	3
SOIL 3600	Soils and Landscapes in Our Environment	3
Restricted[4]/Free Electives[3]/Co-op		6
Total Credit Hours		30

Year 3

Course No.	Course Name	Credit Hours
ANSC 2500	Animal Production	3
BIOE 3100	Agricultural Engineering Fundamentals for Agronomists	3
ENTM 3170	Crop Protection Entomology	3
PLNT 3540	Weed Science	3
PLNT 4270	Plant Disease Control	3
PLNT 4590	Physiology of Crop Plants	3
Restricted[4]/Free Electives[3]/Co-op		12

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

Total Credit Hours	30

Year 4

Course No.	Course Name	Credit Hours
AGRI 4100	Current Issues in Agricultural Systems	3
PLNT 4510	Advanced Cropping Systems	3
SOIL 4510	Soil and Water Management	3
SOIL 4520	Soil Fertility	3
Restricted[4]/Free Electives[3]/Co-op		18
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 the MATH courses listed in the program requirements above however may also use either MATH 1220 or MATH 1230 to meet the requirement.

3. There are 30 credit hours of Free Electives required in the Agronomy 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.

Students considering graduate school in agriculture or a related field in the natural sciences are recommended to take CHEM 1120 (Introduction to Chemical Techniques) and CHEM 2730 (Elements of Biochemistry 1) as Free Electives.

4. There are 9 credit hours of Restricted Electives required in the Agronomy program. Students must complete:

Restricted Electives		Credit Hours
Group 1 - Agriculture – choose two courses from the following list:		6
AGRI 2300	Indigenous Issues in Food Systems	
PLNT 1000	Urban Agriculture	
PLNT 2510*	Fundamentals of Horticulture	
PLNT 3520	Principles of Plant Improvement	
PLNT 3560	Organic Crop Production on the Prairies	
PLNT 4410	Grassland Agriculture: Plant, Animal and Environment	
Group 2 – Soil Science – choose one course at the 3000 or 4000 level from Soil Science (SOIL). Courses required as part of the Agriculture Degree Core or Agronomy Core cannot also be used to meet this requirement.		3

*This course is usually offered every 2nd year - planning ahead is important.