

B.S. Agricultural & Food Systems
Agricultural Technology & Production Management Major
Advising Sheet 2023-2024

University Common Requirements (UCORE):

34 credit minimum required, with no more than three, three-credit courses within the major.

First Year Experience (3 credits) [ROOT]	Credits	Term	Grade	Offered
HISTORY 105: Roots of Contemporary Issues	3			F, S, SS

Foundational Competencies (9 credits minimum)	Credits	Term	Grade	Offered
Written Communication (3) [WRTG]				
ENGLISH 101: Introductory Writing	3			F, S, SS
Communication (3) [COMM] [WRTG]				
H_D 205: Dev. Effective Com. or COM 102: Com. in Info. Soc.	3 - 4			F, S, SS
Quantitative Reasoning (3) [QUAN]				
STAT 212: Intro to Stat Methods or MATH 140: Calc for Life Sci or MATH 171: Calc I or MATH 202: Calc for Business & Econ	3 - 4			MATH 140: F, S OTHER: F, S, SS

Ways of Knowing (16 credits minimum)	Credits	Term	Grade	Offered
Inquiry in the Social Sciences (3) [SSCI]				
ECONS 101: Fundamental Microeconomics	3			F, S, SS
Inquiry in the Humanities (3) [HUM]				
Elective	3			F, S, SS
Inquiry in the Creative and Professional Arts (3) [ARTS]				
Elective	3			F, S, SS
Inquiry in the Natural Sciences (7 minimum) [BSCI] [PSCI] [SCI]				
Major requirements (two of the three): BIOLOGY 106: Intro to Organismal or BIOLOGY 107: Intro to Cell Bio & Genetics or BIOLOGY 120: Intro to Botany	4			BIO 106: F, S, SS BIO 107: F, S, SS BIO 120: F
CHEM 101: Intro to Chem or CHEM 105: Prin. Of Chem I	4			F, S, SS

PICK THREE OF THE FOUR [DIVR], [EQJS], [HUM], and [ARTS]:	Credits	Term	Grade	Offered
Diversity (3 credits) [DIVR]				
Elective	3			F, S, SS
Equity & Justice [EQJS] (3 credits)				
Elective	3			F, S, SS
Inquiry in the Humanities (3 credits) [HUM]				
Elective	3			F, S, SS
Inquiry in the Creative and Professional Arts (3 credits) [ARTS]				
Elective	3			F, S, SS

Agricultural & Food Systems Core Requirements:

Course	Credits	Term	Grade	Offered
BIOLOGY 106, BIOLOGY 107, or BIOLOGY 120	4			See above
CHEM 102: Chem Related to Life Sciences or CHEM 106: Princ. Of Chem II	4			CHEM 102: S, SS CHEM 106: F, S, SS
AFS 201: System Skills Development for AFS	3			S
ANIM_SCI 101: Introduction to Animal Science, or FS 110: Introduction to Food Science	3			F, S
CROP_SCI/HORT 102: Cultivated Plants	3			F, S online
SOIL_SCI 201: Soil: A Living System	3			F, S
ECONS 350: Intro to Farm & Ranch Mgmt. or ECONS 352: Business Mgmt. Economics	3			ECONS 350: F ECONS 352: S
CROP_SCI 360: World Agricultural Systems	3			F, S online
Three credits from the following systems based courses:	3			
AGTM 310: Small Engine Maintenance & Repair (3)(F); ANIM_SCI 464: Companion Animal Mgmt [M] (3)(F); ANIM_SCI 472: Dairy Cattle Production (3)(F); ANIM_SCI 474: Beef Cattle Production (3)(S); BIOLOGY 372: Gen Ecol (4)(F,S); CROP_SCI 302: Forage Crops (3)(S odd); ECONS 351: Intro to Food/Ag. Markets (3)(F); HORT 320: Olericulture (3)(F odd); NATRS 300: Nat Res Ecol (3)(F,S); SOIL_SCI 368: Intro ArcGIS (3)(F) or other systems courses approved by your advisor				

Agricultural Technology & Production Management Major Requirements:

Course	Credits	Term	Grade	Offered
AGTM 305: Ag Precision Systems	3			F
AGTM 314: Ag Power Units & Mobile Electrical Systems	3			F
AGTM 315: Irrigation Systems & Water Management	3			F
AGTM 330: Electrical Power Systems For Ag	3			S
AGTM 405: Advanced Ag Precision Systems	2			S
AGTM 412: Human & Machinery Risk Management	3			S
AGTM 416: Fluid Power Systems	3			S
ACCTG 220: Accounting for Non-Business Majors	3			F
AFS 102: Professional Development in Ag	1			F,S
AFS 103: Field Experience in Agricultural & Food Systems	1			S
AFS 336: Ag. Environment & Community or SOE 312: Natural Resources, Society, & the Environment	3			AFS 336: F SOE 312: S
CROP_SCI 305: Ecol. & Mgmt. of Weeds or ENTOM 351: Ecol. & IPM or CROP_SCI 403: Adv. Crop Sys or PL_P 429: Gen. Pl. Path	3			ENTOM 351: S OTHER: F
ENGLISH 402 [M]: Tech./Prof. Writing, 403 [M] Technical & Prof. Writing ESL, or COM Comm. Science & Tech.	3			F, S, SS

CHECK LIST FOR THIS MAJOR:

Writing in the Major (2 [M] courses)	
Writing Portfolio	
40 Upper Division Credits	
UCORE	35-37 credits
AFS Core	29 credits
Ag Technology & Production Major	34 credits
Open Electives	20-22 credits
Total (at least 120 credits)	

NOTES:

Students may be admitted to the Agricultural Technology & Production Management Major upon making their intention known to the department.

Students take 3 of the 4 required UCORE Courses: [HUM], [ARTS], [DIVR] OR [EQJS].

**Open Electives are chosen by the student and are needed to reach the minimum 120 credits to graduate.*

Electives can be used towards a minor. Contact an advisor or the department for more information on courses for your minor interest. Suggested minors could be Business Administration, Economics, Agribusiness Economics, Environmental and Resource Economics, Sustainable Development, Communications, Animal Sciences, Crop Science, Horticulture, Natural Resources, Soil Science, Political Science, Global Politics, a foreign language, etc.

Other [M] courses to consider when looking at taking electives are AFS/SOIL_SCI 302 [M], ECONS 452 [M], and ENTOM 343 [M].

Last Updated 5/11/2023

Open Electives:

Course*	Credits	Term	Grade	Offered

FOUR-YEAR PLAN

	Fall Semester	Hours	Spring Semester	Hours
First Year	BIOLOGY 120 [BSCI] ANIM_SCI 101 HISTORY 105 [ROOT] CROP_SCI/HORT 102 AFS 103 UNIV 104 or Elective ¹	4 3 3 3 1 2	BIOLOGY 106 or 107 ENGLISH 101 [WRTG] SOIL_SCI 201 ECONS 101 [SSCI] STAT 212, MATH 140, 171, or 202 [QUAN]	4 3 3 3 3 or 4
Second Year	CHEM 101 or 105 [PSCI] AGTM 315 AGTM 314 [HUM], [ARTS], [DIVR], or [EQJS] ⁵ AFS 201	4 3 3 3 3	CHEM 102 or 106 COM 102 or H_D 205 [COMM] [HUM], [ARTS], [DIVR], or [EQJS] ⁵ ACCTG 220 AFS 102 Complete Writing Portfolio	4 3 or 4 3 3 1
Third Year	AGTM 305 CROP_SCI 305, 403, or PL_P 429 ³ CROP_SCI 360 ECONS 350 ⁴ AFS 336 ²	3 3 3 3 3	AGTM 330 AGTM 405 [HUM], [ARTS], [DIVR], or [EQJS] ⁵ ECONS 450 ⁵ or Elective [M] MGMT 301 ⁵ or Elective	3 2 3 3 3
Summer Session	AGTM 495 (Recommended)	3		
Fourth Year	AFS Core Systems Elective ⁶ MKTG 360 ⁵ or Elective ENGLISH 402, 403 or COM 400 400-Level Business ⁵ or Elective Electives ⁵	3 3 3 3 4	AGTM 412 AFS 401 [CAPS] AGTM 416 Elective	3 3 3 3

Footnotes

¹ UNIV 104 recommended.

² SOE 312 can be taken in the spring as an alternative to AFS 336.

³ ENTOM 351 can be taken in spring as an alternative to the other courses listed.

⁴ ECONS 352 can be taken in the spring as an alternative to ECONS 350.

⁵ Course required for a Business minor is recommended. Working with their advisors, students are encouraged to apply electives towards a minor of their choice.

⁶ AFS Core Systems Electives: AGTM 310, ANIM_SCI 464 [M], ANIM_SCI 472 [M], ANIM_SCI 474 [M], BIOLOGY 372, CROP_SCI 302, ECONS 351, HORT 320, SOE 300, SOIL_SCI 368, or other systems courses approved by your advisor.