

Academic Program Curriculum

University of Minnesota Crookston

Bachelor of Science

Updated: August 2023

AGRICULTURAL EDUCATION

REQUIREMENTS: Agricultural Science Liberal Education 40 Major/electives 80 TOTAL 120	REQUIREMENTS: Natural and Managed Environmental Science Liberal Education 40 Major/electives 80 TOTAL 120	REQUIREMENTS: Agricultural Systems Engineering Technology Liberal Education 40 Major/electives 80 TOTAL 120
--	---	---

LIBERAL EDUCATION DISTRIBUTION REQUIREMENTS (minimum of 40 credits)

Written and Oral Communication (*minimum of 9 credits*) *Required course in this area:*

	COMP	1011	Composition I	3	F,S
	COMP	1013	Composition II	3	F,S
	SPCH	1101	Public Speaking	3	F,S

Biological and Physical Sciences (*min. of 3 credits from biological sciences with lab and min. of 3 credits from physical sciences with lab*)

	BIOL	1009	General Biology	4	F,S
	PHYS	1012	Introductory Physics (AAET emphasis)	4	F,S
	CHEM	1001	Introductory Chemistry (AS & NMEE emphasis)	4	F,S

Mathematical Thinking (*min. of 3 credits*)

	MATH	1031	College Algebra	3	F,S
--	------	------	-----------------	---	-----

History and the Behavioral and Social Sciences (*min. of 6 credits; ED requires the following*)

	ECON	2102	Microeconomics	3	F,S
	ED	2100	Child and Adolescent Development and Learning	3	F,S

The Humanities—the Arts, Literature, and Philosophy (*min. of 6 credits*)

Human Diversity (*min. of 3 credits; may also count in one other goal area*)

Global Perspective (*min. of 3 credit; may also count in one other goal area*)

Ethical and Civic Responsibility (*min. of 3 credits; may also count in one other goal area*)

People and the Environment (*min. of 3 credits; may also count in one other goal area*)

Liberal Education Electives

PROGRAM REQUIREMENTS

EDUCATION CORE (28)

	ED	2200	Foundations of Education	3	F
	ED	2400	Introduction to Middle School and High School Education and Experiential Learning	3	S
	ED	3001	Perspectives of Substance Use for Educators	1	F,S
	ED	3033	Foundations of Teaching Work-Based Learning	2	S
	ED	3034	Methods of Teaching Work-Based Learning	3	F
	ED	3009	Human Relations in Diversity	2	S
	ED	3110	Educational Psychology	3	S
	ED	3210	Reading in the Content Area	2	F
	ED	3500	Introduction to Children with Special Needs	2	S
	ED	3600	Classroom Management in Middle School and High School Settings	3	F
	ED	4400	Teaching 5-12 Students in Inclusive Environments	2	F
	ED	4600	Student Teaching: Work-Based Learning	1	S
	ED	4800	Senior Professional Seminar	1	S

AGRICULTURE/NATURAL RESOURCES CORE (24)

	SOIL	1293	Soil Science	3	F
	ASM	1034	Facility, Maintenance, and Safety	4	F,S
	AGEC	1005	World Agricultural Food Systems	3	S
	AGEC	2310	Agribusiness Financial Records (technology credit)	3	F,S,SS
	ANSC	1004	Introduction to Animal Science	4	F,S
	NATR	3374	Ecology	4	F
	GNAG	3XXX	International Agricultural Education Experience (GnAg 3203 or 3204)	3	S,M,SS

AGRICULTURAL EDUCATION (18)

	AGED	2001	Career Exploration and Early Experience in Agricultural Education (May be repeated to 3 credits)	1	F,S
	AGED	3003	SAE, FFA & Leadership	3	S
	AGED	3004	Methods of Teaching Agricultural Education	4	F
	AGED	4700	Teaching Internship – Farm Business Management	1	S
	AGED	4800	Teaching Internship – Middle School	1	S
	AGED	4900	Teaching Internship– High School	8	S

WORK-BASED LEARNING (6)

	ED	3033	Foundations of Teaching Work-Based Learning	2	S
	ED	3034	Methods of Teaching Work-Based Learning	3	F
	ED	4600	Student Teaching: Work-Based Learning	1	S

AGRICULTURAL SCIENCE EMPHASIS (10)

	HORT	1010	Introduction to Horticulture	3	F,S
	AGRO	1183	Field Crops: Production Principles	3	F,S
	EQSC or ANSC	XXXX	Animal Production (select from the following: EqSc 2102; AnSc 1205, 1206, 3303, 3204)	4	F,S

NATURAL AND MANAGED ENVIRONMENTAL EDUCATION EMPHASIS (10)

	HORT	1010	Introduction to Horticulture	3	F,S
	NATR	1233	Introduction to Natural Resources	3	F
	NATR	1244	Elements of Forestry	4	S

AGRICULTURAL SYSTEMS ENGINEERING TECHNOLOGY EMPHASIS (10)

	ASM	2043 or	Welding and Manufacturing Processes	3	S
	ASM	2053 or	Electricity, Controls, and Sensors in Agriculture	3	S
	ASM	3002	Agricultural Mobile Power Systems	3	F
	ASM	3360	Applications in Precision Agriculture	3	S
	ASM	3365	Applications in Precision Agriculture Lab	1	F