MONTANA STATE UNIVERSITY - DEPARTMENT OF LAND RESOURCES & ENVIRONMENTAL SCIENCES
Degree Requirements for a B. S. in Sustainable Foods & Bioenergy Systems - Agroecology Option
2021 - 2022 Catalog

Name: **GID#:** **Date:** **Graduating Semester:**

A minimum of 120 credits is required for graduation; at least 42 of these credits must be in courses numbered 300 and above.

ALL DEPARTMENTAL REQUIREMENTS & THEIR PREREQUISITES MUST BE A GRADE OF C- OR BETTER

GRADUATION APPLICATIONS ARE DUE ONE YEAR BEFORE GRADUATION

DEPARMENTAL REQUIREMENTS:

Subject/#	Course Title	Credits	Semester	Year	EXCEPTONS
Freshman Year					
ENSC 110	Land Resources & Environmental Sciences	3	F		
BIOB 170IN	Pprinciples Biological Diversity	4	F S (F)		
M 121Q (or higher)	College Algebra	3	F S Su (F)		
WRIT 101W	College Writing	3	F S Su (F)		
WRIT 101W is waived with an ACT English Score of 28 or higher, an SAT Critical Writing score of 650 or higher, an MUS Writing Assessment of 5.5, or an ACT/SAT essay/writing subscore of 11.					
BIOB 110CS	Introduction to Plant Biology	3	S		
CHMY 141 & CHMY 142	College Chemistry I & Lab	4	F S Su (S)		
SFBS 146	Intro Sust Food/Bioenergy Systems	3	S		
ECNS 101IS	Economic Way of Thinking	3	F S Su (S)		
US Core	University Seminar	3	F S (S)		
Sophomore Year		**Credits**	**Semester**		
BIOB 160	Principles of Living Systems	4	F S Su (F)		
CHMY 143 & CHMY 144	College Chemistry II & Lab	4	F S Su (F)		
ENSC 245IN	Soils	3	F		
STAT 216Q (or higher)	Intro to Statistics	3	F S Su (F)		
BIOB 318	Biometry		F		
Univ. Core		3	F S Su (F)		
CHMY 123 & 124 or	Intro to Organic Biochemistry & Lab	4	F S Su (S)		
CHMY 211 & 212	Elements of Organic Chemistry & Lab	5	F S (S)		
ENSC 210 or	Role of Plants in the Environment	3	S		
ECHM 205CS	Energy & Sustainability		F S (S)		
GPHY 284	Intro to GIS Science & Cartography	3	F S Su (S)		
SFBS 298 or	Internship	3	F S Su (S)		
SFBS 296	Practicum: Towne's Harvest Garden		Su		
Univ. Core		3	F S Su (S)		
Junior Year		**Credits**	**Semester**		
NUTR 221CS	Basic Human Nutrition	3	F S Su (F)		
ENSC 353	Environmental Biogeochemistry	3	F		
BIOE 370 or	General Ecology	3	F S (F)		
NRSM 240	Natural Resource Ecology		F		
Univ. Core		6	F S Su (F)		
NUTR 226	Food Fundamentals	3	S		
AGSC 341	Field Crop Production	3	S		
Directed Electives		3	F S Su (S)		
Univ. Core		3	F S Su (S)		
Senior Year					
SFBS 327	Ethnobotany	3	F		
NUTR 351	Nutrition & Society	3	F S (F)		
SFBS 499	Senior Thesis/Capstone	3	F		
Choose one:					
SFBS 429	Small Bus & Entreprenure Food Health	3	F		
BIOO 433	Plant Physiology		S		
SFBS 466	Food Syst Resilience, Vulnerab & Trans		S		

Senior Year Continued					
Subject/#	**Course Title**	**Credits**	**Semester**	**Year**	**EXCEPTONS**
Choose two:		6			
AGSC 401	Integrated Pest Management	3	F		
ENSC 443	Weed Ecology & Management		F		
AGSC 428	Cropping Systems & Sustainable Ag		S		
BIOM 421	Concepts of Plant Pathology		S		
Choose one:					
BIOE 455	Plant Ecology	3	S		
BIOM 452	Soil & Environmental Microbiology		S		
ENSC 468	Ecosystem Biogeochem Global Change		S		
SFBS 498	Internship	3	F S (S)		
Directed Electives		9			

RESTRICTED ELECTIVES - Choose 12 credits of the following:					
Subject/#	**Course Title**	**Semester**		**Year**	**EXCEPTIONS**
AGSC 342	Forages	3	F		
ANSC 222	Livestock in Sustainable Systems	3	S		
BIOB 375	General Genetics	3	F S Su		
BIOE 422	Insect Ecology	3	S		
BIOE 375	Ecol Responses Climate Change	3	S		
BIOM 360	General Microbiology	5	F S		
ECNS 132	Econ & the Environment	3	on demand		
ENSC 407	Environmental Risk Assessment	3	F		
ENSC 410R	Biodiversity Methods	3	F		
ENSC 490R	Undergraduate Research	3	F S Su		
ENSC 492	Independent Study	3	F S Su		
GPHY 384	Adv GIS and Spatial Analysis	3	F		
GPHY 484R	Applied GIS & Spatial Analysis	3	S		
HORT 337	Vegetable Production	3	F		
HORT 345	Market Gardening	3	Su		
NASX 415	Native Food Systems	3	F		
NUTR 301	Food & Culture	3	F		
NUTR 435	Experimental Foods	3	F		
NUTR 496	Practicum Food Product Development	3	S		
PSCI 436	Politics of Food & Hunger	3	on demand		
SFBS 346	SFBS Summer Field Course	1	Su		
SFBS 429	Small Bus Entrepreneur (if not taken above)	3	F		
SFBS 445R	Culinary Marketing: Farm/Table	3	Su		
SFBS 451R	Sustainable Food Systems	3	S		
SFBS 466	Food Syst Resilience (if not taken above)	3	S		

Because some courses are offered alternate years, the proposed scheduling of courses in junior and senior years may need to be modified. Work with your advisor for your individual schedule.

LRES Majors: ENSC 490R Undergrad Research or ENSC 492 Independent Study is strongly recommended.

CORE 2.0 REQUIREMENTS - Must be a grade C- or better	**Credits**	**Semester**	**Course**
Seminar (US)			
College Writing (W)* **Satisfied by departmental requirements*			
Quantitative Reasoning (Q)*			
Diversity (D)			
Contemporary Issues in Science (CS)* ***2nd IN Course will apply to CS***			
Arts (IA or RA)			
Humanities (IH or RH)			
Social Sciences (IS or RS)*			
Natural Science (IN or RN)*			
Research & Creative Experience (R, RA, RH, RN or RS)			Sep-22