

MONTANA STATE UNIVERSITY - DEPARTMENT OF LAND RESOURCES & ENVIRONMENTAL SCIENCES
Degree Requirements for a B. S. in Sustainable Foods & Bioenergy Systems - Agroecology Option
2018 - 2019 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 WORKSHEETS ARE DUE ONE YEAR BEFORE GRADUATION

DEPARTMENTAL REQUIREMENTS: 86 Credits

| Subject/# | Course Title | Credits | Semester | Year | EXCEPTONS |
|---------------------------|---|----------------|-----------------|------|-----------|
| Freshman Year | | | | | |
| ENSC 110 | Land Resources & Environmental Sciences | 3 | F | | |
| CHMY 141 | College Chemistry I | 4 | F S Su (F) | | |
| M 121Q (or higher) | College Algebra | 3 | F S Su (F) | | |
| ECNS 101IS | Economic Way of Thinking | 3 | F S Su (F) | | |
| WRIT 101W | College Writing | 3 | F S Su (F) | | |
| SFBS 146 | Intro Sust Food/Bioenergy Systems | 3 | S | | |
| BIOB 170IN | Principles Biological Diversity | 4 | F S (S) | | |
| BIOB 110CS | Introduction to Plant Biology | 3 | S | | |
| US Core | University Seminar | 3 | F S | | |
| Sophomore Year | | Credits | Semester | | |
| ENSC 245IN | Soils | 3 | F | | |
| NUTR 221CS | Basic Human Nutrition | 3 | F S Su (F) | | |
| BIOB 160 | Principles of Living Systems | 4 | S | | |
| CHMY 143 | College Chemistry II | 4 | S | | |
| CHMY 123 or CHMY 211 | Intro to Organic Biochemistry | 4 | F S Su (S) | | |
| | Elements of Organic Chemistry | 5 | F S (S) | | |
| ENSC 210 or ECHM 205CS | Role of Plants in the Environment | 3 | S | | |
| | Energy & Sustainability | | F S (F) | | |
| GPHY 284 | Intro to GIS Science & Cartography | 3 | F S (S) | | |
| NUTR 226 | Food Fundamentals | 3 | S | | |
| SFBS 298 or SFBS 296 | Internship | 3 | F S Su (S) | | |
| | Practicum: Towne's Harvest Garden | | Su | | |
| Junior Year | | Credits | Semester | | |
| BIOB 318 or STAT 216Q | Biometry | 3 | F | | |
| | Introduction to Statistics | | F S Su (F) | | |
| NRSM 240 or BIOE 370 | Natural Resource Ecology | 3 | F | | |
| | General Ecology | | F S | | |
| ENSC 353 | Environmental Biogeochemistry | 3 | F | | |
| NUTR 351 | Nutrition & Society | 3 | F | | |
| SFBS 327 | Measure innovation in Food Systems | 3 | F | | |
| AGSC 341 | Field Crop Production | 3 | S'ev | | |
| Choose one: | | | | | |
| BIOO 433 | Plant Physiology | 3 | S | | |
| SFBS 429 | Small Bus & Entrepreneur Food Health | 3 | F | | |
| SFBS 466 | Food Syst Resilience, Vulnerab & Trans | 3 | S | | |
| Univ Core and Electives | | 9-10 | | | |

| Senior Year | | | | | |
|--|------------------------------------|----------|-----------|------|------------|
| Subject/# | Course Title | Credits | Semester | Year | EXCEPTONS |
| Choose two: | | | | | |
| AGSC 401 | Integrated Pest Management | 3 | F | | |
| AGSC 428 | Sustainable Cropping Systems | | S | | |
| BIOM 421 | Concepts of Plant Pathology | | S | | |
| ENSC 443 | Weed Ecology & Management | | F | | |
| 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 Su | | |
| SFBS 499 | Senior Thesis/Capstone | 3 | F | | |
| Univ Core and Electives | | 15 | | | |
| RESTRICTED ELECTIVES - Choose 12 credits of the following: | | | | | |
| Subject/# | Course Title | Semester | | Year | EXCEPTIONS |
| ANSC 222 | Livestock in Sustain Systems | 3 | S | | |
| ECNS 132 | Econ & the Environment | 3 | on demand | | |
| AGSC 342 | Forages | 3 | F | | |
| BIOB 375 | General Genetics | 3 | F S Su | | |
| BIOE 422 | Insect Ecology | 3 | S'od | | |
| BIOE 375 | Ecol Responses Climate Change | 3 | S | | |
| BIOM 360 | General Microbiology | 5 | F S | | |
| ENSC 407 | Environmental Risk Assessment | 3 | F'od | | |
| ENSC 410R | Biodiversity Methods | 3 | F | | |
| GPHY 384 | Adv GIS and Spatial Analysis | 3 | F | | |
| GPHY 484R | Applied GIS & Spatial Analysis | 3 | S | | |
| HORT 337 | Vegetable Production | 3 | F'od | | |
| HORT 345 | Organic Market Gardening | 3 | Su | | |
| NASX 415 | Native Food Systems | 3 | F'ev | | |
| SFBS 346 | SFBS Field Course | 2 | Su | | |
| SFBS 445R | Culinary Marketing: Farm/Table | 3 | Su | | |
| SFBS 451R | Sustainable Food Systems | 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 490 Undergrad Research, ENSC 492 Independent Study or ENSC 498 Internship is strongly recommended.

| CORE 2.0 REQUIREMENTS - Must be a grade C- or better | Semester | Year | Course |
|--|----------|------|--------|
| Seminar (US) | | | |
| College Writing (W)* | | | |
| 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) | | | |
| * Satisfied by departmental requirements | | | |