

Sustainable Food and Farming

Bachelor of Science Degree Requirements

(Revised for all students entering in September 2023 and thereafter)

The Bachelor of Science degree in Sustainable Food and Farming requires students to take courses in four categories:

- I. University General Education Requirements (39 credits)
- II. Core Sustainable Food and Farming Classes (32 credits)
- III. Sustainable Agriculture and Food Systems Electives (27 credits)

NOTE: some courses are offered online only. These are indicated as (OLO).

III. University General Education Requirements

The General Education Program at the University of Massachusetts Amherst offers students a unique opportunity to develop critical thinking, communication, and learning skills that will benefit them for a lifetime. University GenEd requirements are:

- College Writing (CW) 3 credits
- General Mathematics (R1) 3 credits
- Analytical Reasoning (R2) 3 credits
- Biological Science (BS) 4 credits
- Physical Sciences (PS) 4 credits
- Arts or Literature (AT or AL) 4 credits
- Historical Studies (HS) 4 credits
- Social & Behav. Sci. (SB) 4 credits
- Social World (AT, AL, I, SI, SB) 4 credits
- U.S. Diversity (DU) 3 credits (may be combined with another GenED)
- Global Diversity (DG) 3 credits (may be combined with another GenED)

II. Core Sustainable Food & Farming Courses (32 cr)

Plant and Soil Sciences (8 cr)

STOCKSCH 105 – Soil Science (4)

AND

STOCKSCH 108 – Intro Botany (4)

Chemistry (3-4 cr)

STOCKSCH 117 – Agricultural Chemistry (3)

or

CHEM 111 – General Chemistry (4)

Math and Analytic Reasoning (R1) (3 cr)

MATH 104 – Algebra, Anal. Geometry & Trig. (3) (R1),

or

MATH 101 – Precalc Algebra (3) **AND** MATH 102 – Anal. Geom. & Trig (3)

or

MATH 127 – Calculus; Life & Social Sciences (3)

Sustainable Agriculture and Food Systems (3 cr)

STOCKSCH 165 – Intro to Sustainable Agriculture and Food Systems (3)

Environmental Issues (3 cr – at least one)

STOCKSCH 186 - Intro to Permaculture (3)

STOCKSCH 270 – Sustainable Soil and Crop Management (3)

STOCKSCH 378 – Introductory Agroecology (3)

Social and Community Issues (3 cr – at least one)

STOCKSCH 263 – Agricultural Leadership and Community-based Education (3)

STOCKSCH 355 – Community Food Systems (3) (OLO)

STOCKSCH 358 – Social Permaculture for Food Justice (3)

Economic and business issues (3 cr – at least one)

ACCNT 221 – Principles of Financial Accounting (3)

STOCKSCH 266 – Farm Management, Planning and Marketing (3)

STOCKSCH 354 – Non-profit Mgmt. of Community-based Farming Progs. (3) (OLO)

MKTG 301 – Fundamentals of Marketing (3)

Integrative Experience (3 cr – choose one)

STOCKSCH 379 – Agricultural Systems Thinking (3)

STOCKSCH 494i – Global Issues in Applied Biology (3)

Junior Writing (3 cr – choose one)

STOCKSCH 382 – Professional Development in Sust. Food & Farming (3),

or

NATSCI 387 – CNS Junior Writing (3)

III. Sustainable Agriculture & Food Systems Electives (27 cr)

Lower-level Electives (Maximum 9 cr applied towards requirements)

STOCKSCH 200 – Plant Propagation (4)

STOCKSCH 209 – Holistic Fruit Production (3) (OLO)

STOCKSCH 210 – Retail Floral Design (3)

STOCKSCH 211 – Pasture Management (3)
STOCKSCH 258 – Urban Agriculture (3) (OLO)
STOCKSCH 263 – Agricultural Leadership and Community-based Education (3)
STOCKSCH 266 – Farm Management, Planning and Marketing (3)
STOCKSCH 268 – Small Farm Husbandry I – Meat Animals (3)
STOCKSCH 269 – Small Farm Husbandry II – Poultry & Pigs (4)
STOCKSCH 270 – Sustainable Crop and Soil Management (3)
STOCKSCH 280 – Herbs, Spices and Medicinal Plants (4) (OLO)
STOCKSCH 281 – Topics in Herbalism (2) (OLO)
STOCKSCH 286 – Permaculture Design and Practice (3)
STOCKSCH 290B – Cultivation of Edible Mushrooms (3) (OLO)
STOCKSCH 290N – Native Food Systems (3) (OLO)
STOCKSCH 263 – Agricultural Leadership & Community Education (3)
STOCKSCH 289 – Forest Gardens: Perennial Ag. for Ecological Regeneration (3)
STOCKSCH 297 L – Intro to Food and Agricultural Law (3) (OLO)

Mid-level Electives (Minimum 6 cr)

STOCKSCH 315 – Greenhouse Management (4)
STOCKSCH 320 – Organic Vegetable Production (3)
STOCKSCH 350 – Sustainable Soil and Crop Management
STOCKSCH 354 – Non-profit Management for Community Food Programs (3) (OLO)
STOCKSCH 365 – Hydroponics (4) (OLO)
STOCKSCH 376 – Student Farm Management I: Planning for Production (3)
STOCKSCH 378 – Intro Agroecology (3)
STOCKSCH 379 – Agricultural Systems Thinking (3)
STOCKSCH 384 – Plant Physiology (3)
STOCKSCH 386 – Sustainable Site Design and Planning (3) (OLO)
STOCKSCH 387 – Global Food Systems (3)
STOCKSCH 397 FJ – Social Permaculture for Food Justice (3) (OLO)
STOCKSCH 397R – Social Permaculture: Building Resilient Communities (3)
STOCKSCH 476 – Student Farm Management II: Harvesting, Marketing and Management (3)
STOCKSCH 490S – Soil Ecology (4)
STOCKSCH 494i – Global Issues in Applied Biology (3)

Upper-level Electives (Minimum 6 cr)

STOCKSCH 505 – General Plant Pathology (3)
STOCKSCH 510 – Management and Ecology of Plant Diseases (3)
STOCKSCH 515 – Microbiology of the Soil (3)
STOCKSCH 523 – Plant Stress Physiology (3)
STOCKSCH 530 – Plant Nutrition (4)
STOCKSCH 575 – Environmental Soil Chemistry (3-4)
STOCKSCH 580 – Soil Fertility (3)
STOCKSCH 581 – Integrated Pest Management (4-5)
STOCKSCH 587 – Phyto/bioremediation (3)
STOCKSCH 597 AL – Advanced Agricultural Leadership & Community Education (3)
STOCKSCH 597 S – Advanced Community Food Systems (3)

Practica and Independent Study (Maximum 9 cr)

- STOCKSCH 396 or 496 – Independent Study (1-6)
- STOCKSCH 398 or 498 – Practicum (1-6)
- STOCKSCH 398D – HydroFarm Practicum (1-3)
- STOCKSCH 398E – Farm Enterprise Practicum (3-6)
- STOCKSCH 398G – Greenhouse Practicum (1-9)
- STOCKSCH 398P – Permaculture Practicum (4)
- STOCKSCH 496C – Teaching Assistant (2-4)
- STOCKSCH 498E – Farm Enterprise Practicum II (1-6)