## Sustainable Food and Farming Degree Requirements (B.S.)

1. **Botany**  
   - STOCKSCH 108 - Intro to Botany (4) - Fall (or equivalent Biology class)

2. **Soil Science**  
   - STOCKSCH 105 Soil Science (4) - Fall or Spring

3. **Ecosystem Course - Choose one**  
   - STOCKSCH 186 - Introduction to Permaculture (3) - Fall or Spring Online  
   - STOCKSCH 378 - Agroecology (3) – Spring  
   - STOCKSCH 510 – Management & Ecology of Plant Diseases - Spring  
   …other Biology or Environmental Science courses may satisfy this requirement

4. **Mathematics Requirements**  
   - MATH 104 - Alg/Anal Geo/Trig (3) - Fall or Spring  
   - or MATH 101 - Pre_Calc/Alg (2) AND MATH 102 - Anal Geo/Trig (2)  
   - or MATH 127 - Calculus (satisfies both R1 and R2 GenEd)

5. **Analytical Reasoning** - University approved Analytical Reasoning Class (R2)

6. **Chemistry Requirement**  
   - STOCKSCH 117 - Agricultural Chemistry (Summer Online only)  
   - or Chemistry 110 (4) – Fall (Saturday labs required)  
   - or Chemistry 111 (4) - Fall or Spring

7. **Junior Writing (GenEd)**  
   - STOCKSCH 382 - Writing for Sustainability (3) - Spring  
   - or NATSCI 387 - CNS Junior Writing (3) - Fall or Spring

8. **Take at least one course in either policy (or) education;**  
   - STOCKSCH 297AL - Agricultural Leadership and Community Education I (3) Fall  
   - or STOCKSCH 397AL - Agricultural Leadership and Community Education II (3) Spring  
   - or STOCKSCH 355 - Community Food Systems (3) - Fall of odd years  
   - or STOCKSCH 356 - Food Justice and Policy (3) - Fall of even numbered years  
   - or STOCKSCH 287 – Global Food Systems (3) Spring  
   - or STOCKSCH 397 R - Social Permaculture: Building Resilient Communities & Organizations (3) - Spring  
   - or Other courses may satisfy this requirement

9. **Integrative Experience (GenEd)**  
   - STOCKSCH 379 - Ag Systems Thinking (3) - Fall  
   - or NATSCI 494I - Global Issues (3) - Spring
10 Professional Electives – 18 credits with at least one course from each category below:

- Biophysical Systems (includes agricultural classes)
- Economic Systems
- Social Systems

11 Agricultural Science & Practice
Take at least 24 credits with at least 6 credits at the 500+ level and no more than 6 at the 100 level

STOCKSCH 100 – Botany for Gardeners (4) Fall or Summer Online
STOCKSCH 101 – Insects and Related Forms (2) Spring
STOCKSCH 111 – Intro Plant Pathology (2) Spring
STOCKSCH 118 - Intro to Sustainable Food and Farming (1) Fall/Spring
STOCKSCH 120 - Organic Gardening & Farming (4) Fall/Spring
STOCKSCH 166 – Practical Beekeeping (3) Spring
STOCKSCH 170 – Pesticide Certification (1) Fall/Spring
STOCKSCH 182 – Principles of Pesticide Management (2) Spring
STOCKSCH 197 B – Shamanic Herbalism (1) Fall
STOCKSCH 197 CP – Crop Planning for Diversified Vegetable Farms (1) Fall
STOCKSCH 197 F – Financial Mgt. for the Small Diversified Farm (1) Fall
STOCKSCH 197 FR – Food Waste/Recovery - Sustainable Food System (1) Spring
STOCKSCH 186 - Introduction to Permaculture (3) Fall
STOCKSCH 190 MC - Intro to Mushroom Culture (1) Fall/Spring
STOCKSCH 190 PW - Personal Wellness for Farmers and Gardeners (3) Spring
STOCKSCH 197 M – Mushroom Practicum (1-3) Fall
STOCKSCH 197 P – Permaculture Gardening at UMass (1) Fall
STOCKSCH 200 - Plant Propagation (3) Fall
STOCKSCH 211 - Pasture Management (3) Fall
STOCKSCH 235 - Pruning Fruit Crops (2) Spring
STOCKSCH 255 - Herbaceous Plants (3) Spring
STOCKSCH 258 - Urban Agriculture (3) Spring
STOCKSCH 260 - Growing Plants Indoors (3) Spring
STOCKSCH 265 - Sustainable Agriculture (3) Fall
STOCKSCH 266 – Managing the Small Farm Enterprise (3) Fall
STOCKSCH 280 - Herbs, Spices & Medicinal Plants (4) Spring
STOCKSCH 290 FI – Forest Incomes for the Small Farm (3) Fall
STOCKSCH 290 W – Organic Weed Control (3) Spring
STOCKSCH 297AL - Agricultural Leadership and Community Education I (3) Fall
STOCKSCH 281- Topics in Herbalism I (2) Fall
STOCKSCH 282 - Topics in Herbalism II (2) Spring
STOCKSCH 286 - Permaculture Design & Practice (3) Spring
STOCKSCH 290 MP - Small Farm Husbandry I - Raising Meat Animals (3) Spring
STOCKSCH 290 PP - Small Farm Husbandry II - Raising Poultry and Pigs (3) Fall
STOCKSCH 297T - Alternative Medicine for Animals & Humans (1) Fall
STOCKSCH 300 - Deciduous Orchard Science (3) Fall (odd years)
STOCKSCH 305 - Small Fruit Production (3) - Fall (even years)
STOCKSCH 315 - Greenhouse Management (4) Fall
STOCKSCH 320 – Organic Vegetable Production (3) Spring
STOCKSCH 326 - Insect Biology (3)  Fall
STOCKSCH 342 - Pesticides, Envir/Public Policy (3)  Fall
STOCKSCH 350 - Sustainable Soil and Crop Management (3) Fall
STOCKSCH 356 - Food Justice and Policy (3) Fall of even numbered years
STOCKSCH 370 - Tropical Agriculture (3)  Spring
STOCKSCH 375 - Soil and Water Conservation (3)  Fall
STOCKSCH 378 - Agroecology (3) Spring
STOCKSCH 384 - Plant Physiology (3)  Spring
STOCKSCH 387 – Global Food Systems (3)  Spring
STOCKSCH 390 SF – Student Farm Management I: Planning for Production (3)  Spring
STOCKSCH 397AL - Agricultural Leadership and Community Education II (3) Spring
STOCKSCH 397B – Behavior of Domestic Animals (3) Spring
STOCKSCH 397 GB – Grapevine Biology (3)  Fall
STOCKSCH 397 VP – Sustainable Grape Production (3)  Spring
STOCKSCH 485 - Sustainable Food & Farming Senior Capstone (3)  Spring
STOCKSCH 490 SF – Student Farm Mgt. II: Harvest, Marketing & Finance (3)  Fall
STOCKSCH 497 P – Pharmacognocy (3) Fall
STOCKSCH 505 – General Plant Pathology (4) Fall
STOCKSCH 510 – Management and Ecology of Plant Disease (3) Spring
STOCKSCH 515 – Microbiology of the Soil (3) Fall
STOCKSCH 520 – Physiology of Crop Yield (3) Fall
STOCKSCH 525 – Mycology (3) alternate years Fall
STOCKSCH 530 – Plant Nutrition (3) Fall
STOCKSCH 535 – Diagnostic Plant Pathology (3) alternate years Spring
STOCKSCH 545 – Postharvest Biology (4) Spring
STOCKSCH 550 – Plant Hormones and Applied Plant Physiology (3)  Spring
STOCKSCH 580 – Soil Fertility (3)  Spring
STOCKSCH 597 A – Phyto/Bioremediation (3) Fall

Courses outside of Stockbridge that count toward Ag Science & Practice and/or Professional Electives

ANIMLSCI 101 - Introduction to Animal Science (3) - Fall
ANIMLSCI 103 - Introduction to Animal Management (3) - Spring
ANIMLSCI 220 - Anatomy & Physiology of Domestic Animals (3)
ANIMLSCI 260 - Animal Care and Welfare (3)
ANIMLSCI 332 - Basic Animal Nutrition & Feeding (3)
ANIMLSCI 390B - Animal Business Management (3)
ANIMLSCI 421 - Fundamentals of Reproduction (3)
ANTHRO 397 FD - Food and Culture (3) Spring
FOOD-SCI 101 - Food and Health (3) Spring
FOOD-SCI 120 - Food Preservation: Why and How (4 PS GenEd) - Fall/Spring
FOOD-SCI 160 - The Nature of Food (3) - Fall
ITALIAN 397K - Food, History and Culture of Italy (3) Spring
NUTRITN 572 - Community Nutrition (3) Fall/Spring
NUTRITN 597K - Culture, Nutrition and Health (3) Fall/Spring
SOCIOL 391 F - Food and Labor (3) - Fall
NRC 212 - Forest Tree and Shrub Identification (3) Fall (instructor permission required)
NRC 225 - Forests and People (3) Spring
NRC 310 - Community Forestry (3) Spring (instructor permission required)
NRC 526 - Silviculture (3) Spring (instructor permission required)
Farm Animal Practice Courses – requires permission of Instructor (see contact info)

Fall Classes
ANIMLSCI 232 – Belted Galloway Mgt. I – Katie Beltaire – kbeltaire@vasci.umass.edu
ANIMLSCI 234 - Poultry Management I - Hélène Cousin – hcousin@vasci.umass.edu
ANIMLSCI 297DC – Dairy Calf Management – Mark Huyler – mhuyler@vasci.umass.edu
ANIMLSCI 298E – Dorset Sheep Management I – Alice Newth – newth@vasci.umass.edu
ANIMLSCI 297F – Equine Management I– Cassie Uricchio – curicchio@umass.edu
ANIMLSCI 298S – Boer Goat Management I– Susan Marston – smarston@vasci.umass.edu

Spring Classes
ANIMLSCI 252 – Belted Galloway Mgt. II – Katie Beltaire – kbeltaire@vasci.umass.edu
ANIMLSCI 254 - Poultry Management II - Hélène Cousin – hcousin@vasci.umass.edu
ANIMLSCI 297D – Dairy Calf Management – Mark Huyler – mhuyler@vasci.umass.edu
ANIMLSCI 297E – Dorset Sheep Management II – Alice Newth – newth@vasci.umass.edu
ANIMLSCI 297S – Boer Goat Management II– Susan Marston – smarston@vasci.umass.edu

Other courses with permission

12 Winter and Summer ONLINE Classes: The Sustainable Food and Farming program offers an extensive list of classes online throughout the year; however most campus students don’t take online classes during the spring and fall semesters because Continuing and Professional Education fees are not included in regular tuition. On the other hand, many students will find the winter term and/or one of the two summer sessions a good time to take an online class. Online courses may satisfy major requirements with the approval of the Program Coordinator.

STOCKSCH 100 - Botany for Gardeners (4) Winter and Summer
STOCKSCH 106 – Soil Science and Management (3) Summer
STOCKSCH 108 - Intro to Botany (4) - Summer
STOCKSCH 117 - Agricultural Chemistry (3) - Summer
STOCKSCH 120 - Organic Gardening & Farming (4) - Summer
STOCKSCH 119 - Backyard Homesteading (3) Winter and Summer
STOCKSCH 258 - Urban Agriculture (3) - Winter
STOCKSCH 288 - Land Use Policies and Sustainable Farming (3) - Summer
STOCKSCH 266 – Managing the Small Farm Enterprise (3) Spring and Summer
STOCKSCH 320 - Organic Vegetable Production (3) Summer
STOCKSCH 322 - Postharvest Handling of Fruits and Vegetables (3) Winter
STOCKSCH 355 - Community Food Systems (3) Winter
STOCKSCH 386 - Sustainable Site Planning and Design (3) Summer II
STOCKSCH 322 - Postharvest Handling of Fruits and Vegetables (3) Winter
STOCKSCH 354 - Nonprofit Management of Community Food Programs (3) Winter

For information on the online classes, including those offered in the spring and fall see:

http://sustfoodfarm.org/online-classes/