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**Sustainable Food and Farming**

**Bachelor of Science Online Degree Requirements**

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

* 1. University General Education Requirements (45 credits)
	2. Core Required Classes (26-31 credits)
	3. Agricultural Science and Practice Classes (24 credits)
	4. Professional Electives (20 credits)

The following is a breakdown of which classes are currently available online and which are in the planning stage.

1. **University General Education Requirements**

The 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) 4credits
* Social World (AT, AL, I, SI) 4 credits
* U.S. Diversity (U) 3 credits (may be combined with another GenED)
* Global Diversity (G) 3 credits (may be combined with another GenED)

There are online options for all of the above required General Education classes. In addition, some students will transfer courses from previous college work or may fulfill these requirements at a community college. Two additional General Education classes are taken within the Sustainable Food and Farming major:

* Junior Writing

 STOCKSCH 382 - Writing for Sustainability (3)– Online Summer Session II

* Integrative Experience

 STOCKSCH 379 - Ag Systems Thinking (3) - Online during winter term

1. **Core Required Classes**

These classes are required of students earning a Bachelor of Sciences degree in the Stockbridge School of Agriculture. There is some flexibility depending on a student’s career goals and previous course work. Courses currently available online are listed below. Others are under development as noted.

#### A. Botany

STOCKSCH 108 - Intro to Botany (4)– Summer and Fall

#### B. Soil Science

STOCKSCH 106 - Soil Science and Management (3)- Summer and Fall

#### C. Ecosystem Course – Choose one

STOCKSCH 186 - Introduction to Permaculture (3) – Spring

STOCKSCH 378 - Agroecology (3) – Spring

STOCKSCH 510 – Management and Ecology of Plant Diseases (3)

#### D. Mathematics Requirements

MATH 104 - Alg/Anal Geo/Trig (3) – available online

or MATH 101 (2) and MATH 102 (2) – available online

#### E. Analytical Reasoning – University approved R2 - Analytical Reasoning Class (3) available online

#### F. Chemistry Requirement

STOCKSCH 117 - Agricultural Chemistry (3)– Summer

#### G. Take one course in food/land policy

 STOCKSCH 288 – Land Use Policies & Sustainable Farming (3) –Summer

STOCKSCH 355 - Community Food Systems(3)–Summer

STOCKSCH 387 – Global Food Systems (3)–Spring

STOCKSCH 397R – Social Permaculture for Food Justice (3) –Spring

1. **Agricultural Science and Practice Classes**

**Students must take 24 credits in agricultural science and practice.** These courses may be taken in the Stockbridge School of Agriculture or other departments with approval of the adviser. These include:

* 6 credits at 100 level or above
* 12 credits at 200 level or above
* 6 credits at the 500 level or above

100 Level Classes (no more than 6 credits may count toward the major from this list)

STOCKSCH100 – Botany for Gardeners (4) –Winter and Summer

STOCKSCH 119 – Backyard Homesteading (3) – Fall

STOCKSCH 120 – Organic Farming and Gardening (4) –Summer

STOCKSCH166–PracticalBeekeeping(3)–Fall

STOCKSCH 186 – Introduction to Permaculture (3) –Spring

STOCKSCH172 – Plants in Our World (4) –Summer and Fall

STOCSKSCH 190 M – Intro to Mushroom Culture (1) Winter

STOCKSCH 190R – Raising Dairy Goats Sustainably (3) –Summer& Fall

STOCKSCH 190 P – Pastured Poultry (3) –Spring

200 - 400 Level Classes (at least 12 credits may count toward the major from this list)

STOCKSCH 211 – Pasture Management (3) – Spring

STOCKSCH 258 - Urban Agriculture (3) –Winter

STOCKSCH 265 - Sustainable Agriculture (3) –Spring

STOCKSCH 266 – Managing the Small Farm Enterprise (3) –Summer and Spring

STOCKSCH 288 – Land Use Policies & Sustainable Farming (3) –Summer

STOCKSCH 290 F – Holistic Fruit Production (3) - Spring

STOCKSCH 290S – Forest Incomes for the Small Farm (3) - Summer

STOCKSCH290W –Organic Weed Control (3)– Summer

STOCKSCH 297 FL – Intro to Food and Agricultural Law (3) Winter

STOCKSCH 320 – Organic Vegetable Production (3) –Summer and Fall

STOCKSCH 322 – Post-harvest Handling of Fruits & Vegetables (3) Summer

STOCKSCH 355 – Community Food Systems (3) –Summer

STOCKSCH 378 - Agroecology (3) – Spring

STOCKSCH 379 – Agricultural Systems Thinking (3) Winter

STOCKSCH 386 – Sustainable Site Planning and Design (3) –Summer and Spring

STOCKSCH 387 – Global Food Systems (3) –Spring and Summer

STOCKSCH 397D – Integrated Pest Management (3) – Fall

STOCKSCH 397 PB – Pollinator Biology and Habitat (1) Winter

STOCKSCH 397R – Social Permaculture for Food Justice (3) – Spring

STOCKSCH 398 B – Agricultural Practicum (1-18 credits) – available year round

STOCKSCH 497 D – Sustainable Site Design (2) - Fall

500 Level Classes (at least 6 credits from this list or other departments with approval)

The following courses will be redesigned to be offered online:

STOCKSCH 510 – Management and Ecology of Plant Disease (3)

STOCKSCH 530 – Plant Nutrition (3)

STOCKSCH 580 – Soil Fertility (3)

STOCKCH 597A - Phyto/Bioremediation (3)

STOCKSCH 596 – Independent Study (3)

1. **Professional Electives**

Students working closely with an academic adviser are encouraged to select professional elective courses from the major, other UMass majors, and the Five Colleges which help them move toward their own career goals. General Education classes, one credit Stockbridge classes, transfer courses, independent study and practicum classes may be used to fulfill this requirement. A total of 18 credits of approved courses are required with at least one course from each category below:

• Biophysical Systems

• Economic Systems

• Social Systems

This category ensures that all three aspects of sustainability (environmental, economic and equity) are included in the course of study. The following programs offer courses that may fulfil these categories:

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| * Accounting
 | * Finance
 | * Public Health
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| * Animal Sciences
 | * Geology
 | * Regional Planning
 |
| * Biology
 | * Legal Studies
 | * Resource Economics
 |
| * Building/Const. Tech
 | * Management
 | * Sustainable Communities
 |
| * Economics
 | * Marketing
 | * Women, Gender and Sexuality Studies
 |
| * Education
 | * Nutrition
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1. **Summary**

Students are encouraged to take up to the maximum of 18 credits as Internships or Practica which may be counted toward Professional Electives. These may be farm internships, working with non-profits or businesses, or study abroad. Stockbridge is committed to helping students gain practical experience as part of their major area of study. For more information, talk with our SFF Internship Coordinator, Renee Ciulla at rciulla@umass.edu. And see: <https://sustfoodfarm.org/internship/>.

To graduate, students must take the following minimum number of classes:

* University classes = 120 credits
* College of Natural Science classes (includes Stockbridge) = 60 credits
* Stockbridge School of Agriculture classes = 30 credits