



## Sustainable Agriculture

**Program Code:**

LF\_LFSA

**Academic Area:**

Science, Technology, Engineering and Mathematics

**Type:**

Associate in Science

### Program Statement

The Sustainable Agriculture program is designed to address the issues of a safe, reliable food supply and the environmental relationships of agriculture with resource use, energy consumption and climate change. The goal of this program is to provide the practical training and experience for sustainable farming and gardening and is directed towards new farmers, gardeners, landscapers, nursery producers, and farm managers. Graduates will be prepared to enter farming, gardening, community organizations, agricultural businesses, or to continue their education in sustainable food production and agricultural professions.

### Program Information

- Graduates are prepared with the scientific basis and technical skills necessary to pursue a career as a sustainable agriculture professional.
- Hands-on experience in laboratories and field experiences allows students to put into practice knowledge gained in the classroom.
- Graduates of this program are not only prepared to work as sustainable agricultural professionals, advisors, and managers; they also are prepared with the fundamentals for pursuing further study in the field of agriculture and related natural sciences.

### Recommended Electives

Students should choose from AGR, BIO, SCI, SOC, SUS to complete at least 61 credits.

### After Bristol

- Continue education at a 4-year program such as University of Massachusetts/Amherst Sustainable Food and Farming Program or University of Rhode Island (URI) Sustainable Agriculture Program.
- Pursue a career as a professional organic landscape or garden consultant.
- Pursue a career as an organic producer.
- Employment on one of over 170 S.E. Massachusetts or Rhode Island organic farms.
- Employment at a nursery, landscaper, or garden center business.
- Employment with a community development organization or school gardens program.
- Students with a 2-year Associate Degree are eligible to serve as an agricultural volunteer in the U.S. Peace Corps.
- Bristol participates in the statewide MassTransfer program and has developed many program-to-program transfer articulation agreements which guarantee admission and credit transfer. For a complete listing of



eligible MassTransfer programs, current Bristol articulation agreements, and to complete an A2B Program Search, visit the Transfer Services website to review which credits will be transferred and applied to your degree.

## Program Learning Outcomes

Students will be able to:

1. Analyze the current social, economic, and technical challenges and opportunities in sustainable food production by evaluating case studies and industry reports.
2. Evaluate the impacts of agriculture on natural resources, energy, the environment, and climate change, and propose solutions for mitigating these impacts.
3. Demonstrate the ability to apply the scientific method and laboratory practices by conducting experiments and reporting findings according to standard scientific procedures.
4. Identify and operate diverse field, nursery, and processing equipment, and apply sampling techniques to collect data for analysis and decision-making.
5. Explain the scientific principles of soil physics, chemistry, and biology, and apply this knowledge to manage soil fertility, plant health, and food quality in a given agricultural context.
6. Apply fundamental plant science concepts, including taxonomy, physiology, and horticultural practices, to design and implement sustainable production systems, including use of native plants.
7. Implement crop protection strategies using cultural, biological, and organic practices to prevent and manage weeds, diseases, and pests, and assess their effectiveness.
8. Plan agricultural production and rotation systems, maintain accurate records, and create crop enterprise budgets to make informed decisions in agricultural production and marketing.

## Degree Requirements

### General Courses

Course #	Title	Credits
COM 104	Fundamentals of Public Speaking	3
CSS 101	College Success Seminar	1
EGR 141	Introduction to Environment	3
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3
HST 114	United States History from 1877	3
MTH 119	Fundamental Statistics	3
SCI 115	Science and Care of Plants	4
SOC 216	Food, Famine, and Farming in the Global Village	3
BUS 114	Small Business Planning Workshop	1
INT 210	Internship Experience I	3



## Program Courses

Course #	Title	Credits
AGR 214	Sustainable Agriculture	4
AGR 116	Water Acquisition and Conservation	2
AGR 123	Entomology and Plant Disease	3

## Elective Courses

Course #	Title	Credits
	MassTransfer Behavioral and Social Science Elective	3
	MassTransfer Behavioral and Social Science Elective	3
	Human Expression Elective	3
	Information Literacy Elective	0-3

## Program Electives

Course #	Title	Credits
	AGR 122, AGR 124 or AGR 125	5-6
	Sustainable Agriculture Program Electives	4-9

## Recommended Course Sequence - Semester 1

Course #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
EGR 141	Introduction to Environment	3
HST 114	United States History from 1877	3
SCI 115	Science and Care of Plants	4

## Recommended Course Sequence - Semester 2

Course #	Title	Credits
AGR 214	Sustainable Agriculture	4
BUS 114	Small Business Planning Workshop	1
ENG 102	Composition II: Writing about Literature	3
	AGR 122, AGR 124 or AGR 125	2-3



## Recommended Course Sequence - Semester 3

Course #	Title	Credits
COM 104	Fundamentals of Public Speaking	3
MTH 119	Fundamental Statistics	3
AGR 116	Water Acquisition and Conservation	2
SOC 216	Food, Famine, and Farming in the Global Village	3
	Human Expression Elective	3

## Recommended Course Sequence - Semester 4

Course #	Title	Credits
INT 210	Internship Experience I	3
	AGR 122, AGR 124 or AGR 125	2-3
	MassTransfer Behavioral and Social Science Elective	3
	MassTransfer Behavioral and Social Science Elective	3
	Information Literacy Elective	0-3
	<b>Total credits:</b>	<b>61</b>

## Category Descriptions

### MassTransfer Behavioral and Social Science Elective

Credits: 3

Choose one MassTransfer Behavioral and Social Science elective.

### Human Expression Elective

Credits: 3

Choose one Human Expression elective.

### Information Literacy Elective

Credits: 0-3

*Information Literacy Elective can be waived for students who have successfully completed two online or hybrid courses.*

Choose one Information Literacy elective.

### AGR 122, AGR 124 or AGR 125

Credits: 5-6



Choose two of the following:

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
AGR 122	Natural Beekeeping Practices	2
AGR 124	Permaculture: Design for Regeneration	3
AGR 125	Specialized Crops	3

## Sustainable Agriculture Program Electives

Credits: 4-9

*Consult with your advisor to select college-level courses to achieve a total of at least 61 credits.*

**Recommended Electives:** AGR, BIO, SCI, SOC or SUS.