

A.S. Degree Handbook 2023-2024

Top 5

Global University for Agricultural Sciences



Employment

Internships

Instruction

UMassAmherst

Stockbridge School of Agriculture

STOCKBRIDGE SCHOOL OF AGRICULTURE

Paige Laboratory
161 Holdsworth Way
University of Massachusetts Amherst
Amherst, MA 01003
413-545-2222

DIRECTOR

Baoshan Xing, Ph.D.

205 Paige Lab
413-545-5212
bx@umass.edu

Assistant to the Director

Sara Kelley
201 Paige Lab
413-545-1058
skelley@admin.umass.edu

Business Manager

Curtson Martin
203 Paige Lab
413-545-5215
curtsonmarti@umass.edu

Registrar

Elizabeth Wiernasz
211 Paige Lab
413-545-3305
wiernasz@cns.umass.

Student Recruitment & Communication

Nessim Watson
315 Paige Lab
413-545-2238
njwatson@umass.edu

PROGRAM COORDINATORS

Arboriculture and Community Forest Management

Kristina Bezanson, M.S.
119 Holdsworth Hall
413-545-6626
kbezanson@umass.edu

Landscape Contracting

Michael Davidsohn, MLA
230 Design Building
413-545-0969
davidsohn@larp.umass.edu

Sustainable Food and Farming

Jaime Piñero, Ph.D.
207 Fernald Hall
413-545-1031
jpinero@umass.edu

Sustainable Horticulture

Elsa Petit, Ph.D.
111 Fernald Hall
413-545-5217
epetit@umass.edu

Turfgrass Management

Michelle DaCosta, Ph.D.
310 Paige Laboratory
413-545-2547
mdacosta@umass.edu

TABLE OF CONTENTS

<u>OUR TWO-YEAR ASSOCIATE DEGREE PROGRAMS</u>	2
<u>HOW TO APPLY</u>	
Application Deadlines	3
Application Materials	3
Part-Time Enrollment	4
Veterans	4
<u>GENERAL INFORMATION</u>	
Financial Aid	5
Housing	6
Meal Plans	6
New England Regional Student Program (NERSP)	6
Research Paper and Project Assistance	7
Scholarships	7
Stockbridge Alumni Community	7
Transcripts	7
<u>EXPENSES</u>	
Estimated Annual Expenses for the 2023-2024 Academic Year	7
Refunds Due to Withdrawal	8
<u>ACADEMIC INFORMATION</u>	
Grading System	9
Academic Status	9
Immediate Reinstatement	10
Right of Appeal	10
Honors	11
Graduation Requirements	11
<u>OUR ACADEMIC MAJORS</u>	
<u>Arboriculture and Community Forest Management</u>	12
<u>Landscape Contracting</u>	13
<u>Sustainable Food and Farming</u>	14
<u>Sustainable Horticulture</u>	16
<u>Turfgrass Management</u>	18
<u>COURSE DESCRIPTIONS</u>	19
<u>CURRENT ACADEMIC CALENDAR</u>	33
2023-2024	

OUR TWO-YEAR ASSOCIATE DEGREE PROGRAMS

Arboriculture and Community Forest Management

Arboriculture and Community Forest Management is the sustainable care of trees and shrubs in residential and community settings. This major prepares graduates for careers in residential, commercial, municipal, and utility arboriculture, as well as the non-profit sector. Students will learn how to plant, prune, fertilize, cable, and remove trees, pest and disease management, plant health care, and quantify the benefits that trees provide, as well as the risks they present. The curriculum prepares students for arborist certification exams.

Landscape Contracting

Students learn the fundamentals of design and the process to execute the construction of landscapes on private, commercial and public properties. A strong horticultural foundation is used to support the construction and design portions of the curriculum while an overlying theme of sustainability ties them together. Students learn in a rigorous lecture and laboratory environment to prepare them for this most rapidly growing area of the green industry.

Sustainable Food and Farming

Students learn the complexities of farming and pursue careers in farming, education, and/or advocacy. During the educational experience, they acquire a basic knowledge of both plant and soil sciences while gaining specialized training in techniques of plant and animal production and management. This major also offers a degree of flexibility in designing a personal program of study.

Sustainable Horticulture

Sustainable Horticulture students prepare for careers in greenhouse crop production, nursery crop production, and horticulture opportunities at parks, recreational areas, tourist attractions, and historic sites. Sustainable and environmentally sound methods of selecting, producing and utilizing landscape plants are emphasized. Students choose elective courses to enrich their studies and to design their own course of study, including vegetable and herb production, sustainable agriculture, and pest management. In this way, students learn a wide variety of skills for application in the diverse horticulture industry.

Turfgrass Management

Through such courses as turfgrass physiology and management, weed management, insect management, plant pathology and disease management, soil science, irrigation, and business management, students are provided with the technical training necessary for professional careers in the dynamic turf care industry. The skills acquired can be applied to the management of athletic fields, golf courses, parks, and home lawns.

HOW TO APPLY

Applications to the Stockbridge School of Agriculture are processed through the Undergraduate Admissions Office.

Application Deadlines

Fall Semester	Early Action	November 5
	Regular Decision	March 15 (encouraged to apply earlier)
Spring Semester	Spring Semester applications are generally not accepted due to prerequisites required for spring semester courses	

Application Materials

Apply online through the Common Application at <https://apply.commonapp.org>

First-Year Applicants

- Common Application
- Application Fee
 - **nonrefundable** \$85 application fee
- Essay
- Letter of Recommendation
- Transcripts
 - official high school transcript (grades 9-11) or GED scores
- Test Scores (Optional)
 - standardized tests are optional for first-year entering applicants
 - SAT and/or ACT scores sent directly from the testing agency
 - UMass Amherst SAT code is 3917; ACT code is 1924
- Gap Explanation
 - if you have not been enrolled in college coursework for one or more semesters after high school graduation, please provide an explanation for the gap/s in your education. This may take the form of a resume, list of activities, or an essay

Transfer Applicants

- Common Application
- Application Fee
 - **nonrefundable** \$85 application fee
- Essay
- Letter of Recommendation is not required for transfer applicants
- Transcripts
 - official college transcripts sent from ALL colleges/universities attended
 - if applying during first year of college after high school graduation, or from colleges with non-standard grading systems, you must also submit official high school transcripts

- Test Scores (Optional)
 - standardized tests are optional
 - SAT and/or ACT scores sent directly from the testing agency
 - TOEFL / IELTS scores (proof of English language proficiency)
 - UMass Amherst SAT code is 3917; ACT code is 1924
- Gap Explanation
 - if you have not been enrolled in college coursework for one or more semesters after high school graduation, please provide an explanation for the gap/s in your education. This may take the form of a resume, a list of activities or an essay

International Applicants

- you may apply for fall admission only
- applicants who are non-native speakers of English are required to demonstrate their English language proficiency

More information for applying as an international student may be found at:

International First-Year Applicants

<https://www.umass.edu/admissions/undergraduate-admissions/apply/international-students>

OR

International Transfer Applicants

<https://www.umass.edu/admissions/undergraduate-admissions/apply/international-students/international-transfer-0>

Applicants with Learning Disabilities

Learn more about support for students with learning disabilities at:

<https://www.umass.edu/disability/students/accommodations-students>

Part-Time Enrollment

You may apply as a part-time student if you are interested in taking fewer than 12 credits per semester. Admittance to any course is on a space available basis.

Part-time students enroll in classes through University Without Walls (UWW); <https://www.umass.edu/uww>

Veterans

If you are a current or former member of the United States Military, you should contact the UMass Amherst Veteran Services Office as soon as you start the application process. The staff assists Veterans, Guardsmen, and Reservists to access the benefits available to them through the Montgomery GI Bill (MGIB), Vocational Rehabilitation, the Post-9/11 GI Bill, and other programs. They also help students make the transition from active military duty to college and from college to active military duty.

For further information about the process of applying for Veteran Educational Benefits:

<https://www.umass.edu/veterans/educational-benefits-and-financial-aid>

You may also contact:

Veterans Benefits Certifying Official

Michael Chan
23 Dickinson Hall
155 Hicks Way
UMass Amherst
Amherst, MA, 01003
413-545-5792

Student Veteran Resource Center (SVRC)

Matt Bachmann, Director
Student Veteran Resource Center
18/19 Dickinson Hall
155 Hicks Way
UMass Amherst
Amherst, MA, 01003
413-545-0939
bachmann@umass.edu
<https://www.umass.edu/veterans/student-veteran-resource-center-svrc>

GENERAL INFORMATION

Financial Aid

The University's Financial Aid Services provides financial aid planning information to students and their families.

Financial Aid Services
243 Whitmore Administration Building
UMass Amherst
181 Presidents Drive
Amherst, MA 01003
413-545-0801
finaid@finaid.umass.edu
www.umass.edu/financialaid/undergraduate

It all starts with the FAFSA!

To apply for financial aid, you need to complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is used to determine your eligibility for federal, state and institutional programs. The FAFSA should be completed online at studentaid.gov each academic year. The FAFSA should be filed before the priority filing date for maximum consideration; <https://studentaid.gov/apply-for-aid/fafsa/fafsa-deadlines>. The Federal School Code for UMass Amherst is 002221.

Housing

All freshmen who are enrolled full-time (12 credits) are required to live on campus.

Exemptions from the residency requirement include:

- sophomores, juniors, seniors, graduate students
- married, divorced or separated students
- parents of dependent child(ren)
- veterans of the U.S. Armed Forces who have submitted a DD214 form to Residential Life
- commuting students who live with their parent(s) or court-appointed guardian(s) within a 40-mile radius of the Amherst campus

Documentation must be provided to Residential Life by students seeking an exemption from the residency requirement. Commuting students must submit a Commuter Form to Residential Life.

Residential Life Student Services
Dawn Bond, Director
235 Whitmore Administration Building
181 Presidents Drive
UMass Amherst
Amherst, MA 01003
413-545-2100
Living@umass.edu
<https://www.umass.edu/living/assign>

Meal Plans

Four all-you-care-to-eat dining commons are conveniently located across campus. Guest meals and Dining Dollars and Meal Exchanges are included in the Residential Meal Plans.

Students may choose from the following meal plans:

Residential Meal Plans (open to on-campus and off-campus students)

Unlimited Access to all four campus dining commons

DC Basic

Residential or Commuter Plan

YCMP Gold* or YCMP Platinum

*Residential students who leave campus in March for their internship training receive the YCMP Gold meal plan during the spring semester of their freshman year

For an overview of the Residential Meal Plans, go to:

<https://umassdining.com/meal-plans/residential-meal-plan>

New England Regional Student Program (NERSP)

The New England Regional Student Program (NERSP) gives a tuition break to New England residents enrolled in certain programs not offered by their home state's public colleges and universities. Students from Connecticut, Maine, New Hampshire, Rhode Island, and Vermont will pay a reduced tuition rate, rather than the out-of-state tuition rate, if they choose a major not offered in their home state.

Stockbridge Major:

Arboriculture and Community Forest Management
 Landscape Contracting
 Sustainable Food and Farming
 Sustainable Horticulture
 Turfgrass Management

Offered to Students from:

ME, NH, RI, VT
 CT, RI
 ME, NH, RI, VT
 ME, RI
 ME, NH, RI, VT

For more information, contact:

Thomas Fritsch, NERSP representative, 213 Whitmore Building; 413-545-0555; tfritsch@umass.edu
 New England Board of Higher Education, 45 Temple Place, Boston, MA 02111; phone 857-284-4879 or
 617-357-9620; <http://www.nebhe.org/tuitionbreak>

Research Papers & Projects Assistance

Two librarians are available to Stockbridge School students to provide assistance with finding reliable information for research papers and other projects. Students may contact them for an individual consultation by phone, email, skype, or in person. Please feel free to contact:

Paulina Borrego, Lederle Grad Research Center; 413-545-7891; pborrego@library.umass.edu
 Madeleine Charney, Du Bois Library; 413-577-0784; mcharney@library.umass.edu

Scholarships

Over 50 scholarships are available to Stockbridge School students. Information is available on the Stockbridge School website: <https://www.umass.edu/stockbridge/current-students/scholarships>

Stockbridge Alumni Community

We are a nationally known talent hub for agriculture and plant sciences. Many of our alumni are employers, and they seek to hire new "Stockies" upon graduation from our programs. See our CareerNet website: <http://stockbridge.cns.umass.edu/career-net>

Transcripts

Two types of transcripts are available: official transcripts and unofficial transcripts. For all transcript requests, please go to: <https://www.umass.edu/registrar/students/transcripts>

EXPENSES**Estimated Annual Expenses for the 2023-2024 Academic Year****In-State**

Tuition & Fees	\$ 17,357.00
Room & Board (average)	\$ 15,437.00
Books & Supplies (average)	\$ 1,500.00
Personal & Transportation (average)	\$ 1,400.00
Total	\$ 35,694.00

New England Regional Program (NERSP)

Tuition & Fees	\$ 32,356.00
Room & Board (average)	\$ 15,437.00
Books & Supplies (average)	\$ 1,500.00
Personal & Transportation (average)	\$ 1,400.00
Total	\$ 50,693.00

Out-of-State

Tuition & Fees	\$ 39,293.00
Room & Board (average)	\$ 15,437.00
Books & Supplies (average)	\$ 1,500.00
Personal & Transportation (average)	\$ 1,400.00
Total	\$ 57,630.00

Other Fees

CNS Lab Fees	\$ 95.00	per lab course
Commencement Fee (one-time fee)	\$ 140.00	
Late Fee	\$ 100.00	
New Student Enrollment Fee (one-time fee)	\$ 400.00	charged during first semester
Returned Check Fee	\$ 25.00	
Returned E-Check Payment	\$ 30.00	
Transcript Fee	\$ 3.00	per electronic copy
	\$ 5.50	per paper copy
Ucard Replacement	\$ 30.00	

Optional Fees

Child Care	\$ 1.00	per semester
Mass PIRG	\$ 11.00	per semester
Student Health Benefit Plan	\$ 1,116.00	per semester; can be waived if student has other insurance

The Bursar's Office has more detailed information about tuition and fees:

<https://www.umass.edu/bursar/tuition-and-fees>

Refunds Due to Withdrawal

Refunds of paid tuition and fees are pro-rated, based on the **effective date of withdrawal**. Students are charged tuition until they meet with the Stockbridge School director to officially withdraw from school.

Refund Schedule

- by the End of the First Day of Class 100% refund
- by the End of the Second Week of Classes 80% refund
- by the End of the Third Week of Classes 60% refund
- by the End of the Fourth Week of Classes 40% refund
- by the End of the Fifth Week of Classes 20% refund
- **after the fifth week 0% No refund**

ACADEMIC INFORMATION

Grading System

A letter grading system is used as a means of measuring as fairly as possible both the quality and overall performance of a student's work. At the end of each semester, students may view their grades on SPIRE. Letter grade, interpretation and assigned points are as follows:

A	= 4.000	B-	= 2.700	D+	= 1.300	IF	= 0.000 (Incomplete Failure)
A-	= 3.700	C+	= 2.300	D	= 1.000	INC	= 0.000 (Incomplete)
B+	= 3.300	C	= 2.000	F	= 0.000	___	= 0.000 (Blank Grade)
B	= 3.000	C-	= 1.700				

Other grade symbols not included in quality point calculations are:

AUD	Audit
CR	Credit
DR	Dropped
IP	In Progress
NR	No grade roster received
P	Pass (added to graduation credits)
SAT	Satisfactory
W	Withdrawn
WF	Withdrew Failing
WP	Withdrew Passing
Y	Year-long Course

Academic Status

The cumulative averages on which academic policy is based are as follows:

Semester	Good Standing	Probation	Suspension
	Min. Cum. Ave.	Cum Ave. Range	Cum Ave. Range
First	2.00	1.35-1.99	1.34 or less
Second	2.00	1.65-1.99	1.64 or less
Third	2.00	1.85-1.99	1.84 or less
Fourth	2.00	_____	1.99 or less

Good Standing

Students are in good academic standing when their cumulative grade point average (GPA) is 2.00 or above.

Academic Probation

Students are placed on academic probation when their cumulative GPA at the end of any semester falls within the range listed for probation. They are eligible to return to school the following semester.

Students on probationary status are required to:

- improve their academic performance so that their cumulative GPA falls within the range required to prevent a suspension
- have an academic hold placed on their record
- meet with the Stockbridge School director to remove the academic hold

Academic Suspension

An academic suspension is enforced when the student's cumulative GPA falls within the range listed for suspension. Suspension is a one-semester separation from the Stockbridge School of Agriculture and UMass, including University Without Walls.

Suspended students:

- may not return to the Stockbridge School for the subsequent semester
- must take a minimum of six (6) credits at another college/university
- must seek approval for courses taken at another college/university from the Stockbridge School director prior to enrollment
- must successfully complete the courses taken at another college/university with a minimum grade of "C"

After one semester's absence and the successful completion of six (6) credits at another college/university, a student may submit an Application for Re-Enrollment with the Stockbridge School Office.

Applications for Re-Enrollment may be downloaded from the Stockbridge School website:

<https://stockbridge.cns.umass.edu/sites/stockbridge.cns.umass.edu/files/re-enrollmentAP.pdf>

Deadline dates for re-enrollment are:

Fall Semester **April 1** (to qualify for on-campus housing)

August 15

Spring Semester **October 15**

Academic Dismissal

A student's second academic suspension will be recorded as an academic dismissal and will result in the student's permanent separation from the School, unless an appeal is granted (see Right of Appeal).

Immediate Reinstatement

Students who are placed on Academic Suspension or Academic Dismissal may be granted Immediate Reinstatement if the Stockbridge School director determines that extenuating circumstances exist. Although these students will have been formally suspended or dismissed (the Suspension or Dismissal will be documented on the academic record), they may enroll for the succeeding semester. If these students fall below good standing in any subsequent semester, they will be subject to Academic Dismissal.

Right of Appeal

Students have the right to appeal their academic status. They are urged to consult with the Stockbridge School director regarding the procedure for petitions and appeals. All such appeals must be initiated in writing. Authority for determining students' academic status resides with the Stockbridge School director or the Committee on Admissions and Records (CAR).

Honors

Cum Laude

Cum Laude is awarded to all students graduating with a minimum cumulative GPA of 3.20 who have completed a minimum of 33 graded credits in residence.

Dean's List

Students are awarded Dean's List Honors for any given semester in which they complete a minimum of 12 graded credits with a GPA of 3.50 or higher. Pass/Fail credits are NOT counted when calculating qualifying credits.

LEAR

Students who earn a minimum 3.75 cumulative GPA for three and/or four semesters are elected to membership in the LEAR honorary scholastic society. LEAR (Celtic word for learning) was established in 1935 to encourage high scholarship.

GRADUATION REQUIREMENTS

Students are responsible for their progress towards graduation and the fulfillment of requirements. Contact with program coordinators is strongly advised of all students throughout their academic career. Candidates must successfully complete the following minimum requirements to qualify for the associate of science degree:

- complete all course requirements of the curriculum
- achieve a minimum 2.00 cumulative GPA
- complete a minimum of 60 credits
- satisfy all financial obligations to the School and University

ARBORICULTURE AND COMMUNITY FOREST MANAGEMENT

Kristina Bezanson, M.S., Program Coordinator

2-year Associate's Degree

This major prepares graduates for careers in residential, commercial, municipal and utility arboriculture, as well as the non-profit sector. Students will learn how to plant, prune, fertilize, cable and remove trees; pest and disease management, plant health care; and how to quantify the benefits that trees provide, as well as the risks they present.

Courses in **bold** require a minimum grade of C.

FIRST SEMESTER			CREDITS
NRC	102	Arboricultural Field Techniques I	2
NRC	232	Principles of Arboriculture	3
STOCKSCH	105	Soils	4
STOCKSCH	108	Introductory Botany	4
STOCKSCH	192F	First Year Seminar	1
SUSTCOMM	335	Plants in Landscape	4
			Total 18
SECOND SEMESTER (SEVEN WEEKS)			
NRC	191A	Seminar in Arboriculture & Community Forestry	2
NRC	198Y	Arboriculture Internship (April-August)	4
NRC	210	Arboricultural Field Techniques II	2
NRC	333	Principles of Arboriculture II	2
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	111	Introductory Plant Pathology	2
			Total 14
THIRD SEMESTER			
MATH	100/101/104	Math Course Based on Math Placement Exam Score	3
NRC	305	Commercial Arboriculture	3
STOCKSCH	109	Insects of Ornamentals	3
STOCKSCH	230	Introductory Turfgrass Management	4
ELECTIVE		Optional	3
GEN ED		Advisor Approved	3
			Total 13-16
FOURTH SEMESTER			
ENGLWRIT	111/112	ENGLWRIT Course Based on Writing Placement Exam Score	3-4
NRC	310	Community Forestry	3
ELECTIVES		Advisor Approved	9-13
LANDARCH	297M	Business Concepts of Landscape Contracting	3
NRC	225	Forests and People	3
NRC	235	Sensible Pruning for Beginners & Experts	2
NRC	261	Wildlife Conservation	3
GEN ED			4
			Total 15-20
			Grand Total 60-68

LANDSCAPE CONTRACTING

Mike Davidsohn, MLA, Program Coordinator

2-year Associate's Degree

This program prepares students with the horticultural, design, and construction background to organize and execute the installation of landscape projects on private, commercial and public properties.

Courses in **bold** require a minimum grade of C.

FIRST SEMESTER			CREDITS
LANDCONT	112	Introduction to Landscape Design	4
STOCKSCH	105	Soils	4
STOCKSCH	108	Introductory Botany	4
STOCKSCH	192F	First Year Seminar	1
SUSTCOMM	335	Plants in Landscape	4
Total			17
SECOND SEMESTER (SEVEN WEEKS)			
LANDARCH	297C	Studio III	3
LANDCONT	105	Landscape Drafting	2
LANDCONT	198Y	Landscape Contracting Internship (April-August)	4
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	111	Introductory Plant Pathology	2
Total			13
THIRD SEMESTER			
LANDCONT	107	Land Form	4
MATH	100/101/104	Math Course Based on Math Placement Exam Score	3
STOCKSCH	109	Insects of Ornamentals	3
STOCKSCH	230	Introductory Turfgrass Management	4
Total			14
FOURTH SEMESTER			
ENGLWRIT	111/112	ENGLWRIT Course Based on Writing Placement Exam Score	3-4
LANDARCH	294A	Construction Materials	3
LANDARCH	294B	Construction Materials Practicum	1
LANDARCH	297M	Business Concepts of Landscape Contracting	3
LANDCONT	213	Small Property Design	4
STOCKSCH	234	Irrigation and Drainage	3
Total			17-18
Grand Total			61-62

SUSTAINABLE FOOD AND FARMING

2-year Associate's Degree

Jaime Pinero, Ph.D., Program Coordinator

Students in this major learn the complexities of farming and pursue careers in farming, education, and/or advocacy.

Courses in **bold** require a minimum grade of C.

FIRST SEMESTER			CREDITS
STOCKSCH	105	Soils	4
STOCKSCH	108	Introductory Botany	4
STOCKSCH	120	Organic Farming and Gardening	4
STOCKSCH	192F	First Year Seminar	1
STOCKSCH	320	Organic Vegetable Production	3
			Total 16
SECOND SEMESTER (1ST SEVEN WEEKS)			
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	104	Plant Nutrients	2
STOCKSCH	111	Introductory Plant Pathology	2
(FULL SEMESTER)			
STOCKSCH	198F	Sustainable Food & Farming Internship (3-5 months)	3-4
SUSFD ELECTIVES		Advisor Approved	6
			Total 15-16
THIRD SEMESTER			
MATH	100/101/104	Math Course Based on Math Placement Exam Score	3
STOCKSCH	270	Sustainable Soil and Crop Management	3
SUSFD ELECTIVES		Advisor Approved	9
			Total 15
FOURTH SEMESTER			
ENGLWRIT	111/112	ENGLWRIT Course Based on Writing Placement Exam Score	3-4
SUSFD ELECTIVES		Advisor Approved	12
			Total 15-16
			Grand Total 61-63

APPROVED SUSTAINABLE FOOD AND FARMING ELECTIVES

- minimum of 30 credits
- other courses may be substituted with advisor approval
- each course can be utilized to satisfy the requirements of only one category

Economic & Social Systems (minimum of one class)

ANIMLSCI	260	Animal Care & Welfare	4 cr	fall sem
NRC	225	Forests and People	3 cr	spring sem
RES-ECON	262	Environmental Economics	4 cr	spring sem
RES-ECON	263	Natural Resource Economics	4 cr	fall sem

Pests & Pest Management (minimum of one class)

STOCKSCH	326	Insect Biology	3 cr	fall sem
STOCKSCH	581	Integrated Pest Management	4 cr	fall sem

SUSTAINABLE FOOD AND FARMING

APPROVED SUSTAINABLE FOOD AND FARMING ELECTIVES (cont.)

Plant & Animal Systems (minimum of two classes)

ANIMLSCI	103	Introductory Animal Management	4 cr	spring sem
ANIMLSCI	260	Animal Care & Welfare	4 cr	fall sem
STOCKSCH	165	Intro to Sustainable Agriculture & Food Systems	3 cr	fall sem

Practica & Related Experiences (minimum of one class)

ANIMLSCI	238	Dairy Calf Management	2 cr	fall sem
ANIMLSCI	239	Livestock Classic	1 cr	spring sem
ANIMLSCI	251	Dorset Sheep Management II	2 cr	spring sem
ANIMLSCI	252	Belted Galloway Management II	2 cr	spring sem
ANIMLSCI	253	Boer Goat Management II	2 cr	spring sem
ANIMLSCI	298	Practicum	1+ cr	both sem
STOCKSCH	170	Pesticide Certification	1 cr	both sem
STOCKSCH	196	Independent Study	1+ cr	both sem
STOCKSCH	298	Practicum	1+ cr	both sem
STOCKSCH	398G	Greenhouse Practicum	1+ cr	both sem

Production Systems (minimum of one class)

ANIMLSCI	103	Introductory Animal Management	4 cr	spring sem
ANIMLSCI	332	Basic Animal Nutrition & Feeding	4 cr	spring sem
STOCKSCH	370	Tropical Agriculture	3 cr	spring sem

SUSTAINABLE HORTICULTURE

2-year Associate's Degree

Elsa Petit, Ph.D., Program Coordinator

Students interested in gaining knowledge in a range of sustainable horticulture topics enroll in this major. Alternatively, students may design their own focus of study (e.g., greenhouse crops and vegetable crops) by choosing from a list of approved electives or special topics courses in consultation with their advisor.

Courses in **bold** require a minimum grade of C.

FIRST SEMESTER			CREDITS
MATH	100/101/104	Math Course Based on Math Placement Exam Score	3
STOCKSCH	105	Soils	4
STOCKSCH	108	Introductory Botany	4
STOCKSCH	192F	First Year Seminar	1
			Total 12
SECOND SEMESTER (1ST SEVEN WEEKS)			
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	104	Plant Nutrients	2
STOCKSCH	111	Introductory Plant Pathology	2
(FULL SEMESTER)			
STOCKSCH	198G	Horticulture Internship (June-August)	3
STOCKSCH	315	Greenhouse Management	4
SUSHORT ELECTIVES		Advisor Approved	3
			Total 16
THIRD SEMESTER			
STOCKSCH	109	Insects of Ornamentals	3
STOCKSCH	200	Plant Propagation (odd years)	3
SUSHORT ELECTIVES		Advisor Approved	6
SUSTCOMM	335	Plants in Landscape	4
			Total 16
FOURTH SEMESTER			
ENGLWRIT	111/112	ENGLWRIT Course Based on Writing Placement Exam Score	3-4
SUSHORT ELECTIVES		Advisor Approved	14
			Total 17-18
			Grand Total 61-62

APPROVED SUSTAINABLE HORTICULTURE ELECTIVES

LANDARCH	294A	Construction Materials	3 cr	spring sem
LANDARCH	294B	Construction Materials Practicum	1 cr	spring sem
NRC	100	Environment and Society	4 cr	fall sem
NRC	210	Arboricultural Field Techniques II	2 cr	spring sem
NRC	232	Principles of Arboriculture	3 cr	fall sem
NRC	310	Community Forestry	3 cr	spring sem
STOCKSCH	120	Organic Farming and Gardening	4 cr	both sem

SUSTAINABLE HORTICULTURE

APPROVED SUSTAINABLE HORTICULTURE ELECTIVES (cont.)

STOCKSCH	165	Intro to Sustainable Agriculture & Food Systems	3 cr	fall sem
STOCKSCH	186	Introduction to Permaculture	3 cr	fall sem
STOCKSCH	230	Introductory Turfgrass Management	4 cr	fall sem
STOCKSCH	234	Irrigation & Drainage	3 cr	spring sem
STOCKSCH	270	Sustainable Soil and Crop Management	3 cr	fall sem
STOCKSCH	275	Turfgrass Physiology & Ecology	3 cr	spring sem
STOCKSCH	320	Organic Vegetable Production	3 cr	fall sem

TURFGRASS MANAGEMENT

2-year Associate's Degree

Michelle DaCosta, Ph.D., Program Coordinator

This major prepares students for employment in the rapidly growing green industry with emphasis on developing grass areas for fine turf, including golf, sports, and lawns.

Courses in **bold** require a minimum grade of C.

FIRST SEMESTER			CREDITS
ENGLWRIT	111/112	ENGLWRIT Course Based on Writing Placement Exam Score	3-4
STOCKSCH	105	Soils	4
STOCKSCH	108	Introductory Botany	4
STOCKSCH	192F	First Year Seminar	1
STOCKSCH	230	Introductory Turfgrass Management	4
			Total 16-17
SECOND SEMESTER (1ST SEVEN WEEKS)			
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	104	Plant Nutrients	2
STOCKSCH	111	Introductory Plant Pathology	2
(2ND SEVEN WEEKS)			
STOCKSCH	112	Turfgrass Pathology Lab	2
(FULL SEMESTER)			
STOCKSCH	107	Turfgrass Insects	2
STOCKSCH	198T	Turfgrass Internship (June-August)	3
STOCKSCH	275	Turfgrass Physiology & Ecology	3
			Total 16
THIRD SEMESTER			
MATH	100/101/104	Math Course Based on Math Placement Exam Score	3
NRC	232	Principles of Arboriculture	3
SUSTCOMM	335	Plants in Landscape	4
ELECTIVE		Advisor Approved	4
			Total 14
FOURTH SEMESTER			
STOCKSCH	234	Irrigation & Drainage	3
STOCKSCH	310	Principles of Weed Managementt	3
ELECTIVES		Advisor Approved	9
SPANISH course			3
OR			
IF TRANSFERRING TO BACHELOR PROGRAM:			
MATH	104	Algebra, Analytic Geometry, and Trigonometry	3
RES-ECON	102	Introduction to Resource Economics	4
GEN ED course			4
			Total 15
			Grand Total 61-62

COURSE DESCRIPTIONS

ANIMAL SCIENCE

Introductory Animal Management

ANIMLSCI 103. With lab. An overview of animal agriculture with a focus on management practices related to the health, husbandry, feeding, breeding, and marketing of beef and dairy cattle, small ruminants, swine, poultry, horses, and alternative agricultural species. This will be accomplished through lectures and hands-on experiences during laboratories, barn chores, and lambing watch.

Prerequisite: ANIMLSCI 101 with minimum grade of C- or consent of instructor and program coordinator

4 credits/spring sem

Dairy Calf Management

ANIMLSCI 238. Experiential learning class involving the daily care and management of pre- and post-weaned dairy calves on a privately owned dairy. Attendance required at weekly management meetings and completion of a two-week calf feeding block. Close-quarter work required with dairy calves. Under the best of circumstances there is a significant risk of contracting zoonotic diseases. To mitigate this risk students will receive training in zoonotic diseases and will be expected to purchase coveralls and waterproof boots. Additional PPE will be provided.

Prerequisites: access to transportation; UMass Environmental Health and Safety (EH&S) training within two weeks of class start date; consent of instructor and program coordinator

2 credits/fall sem

Livestock Classic

ANIMLSCI 239. Grooming and showing of cattle, sheep, and goats are taught through hands-on experience and presentation of the animals in a show organized by the students each spring. The show is open to the public and is held at the Hadley Farm. Previous experience preferred.

Prerequisite: consent of instructor and program coordinator

1 credit/spring sem

Dorset Sheep Management II

ANIMLSCI 251. Participation in all aspects of managing a sheep flock, including nutritional management, health management, pregnancy, neonatal care and marketing.

Prerequisite: consent of instructor and program coordinator

2 credits/spring sem

Belted Galloway Management II

ANIMLSCI 252. Exposure to the beef cattle production cycle in the winter-spring with hands-on experience. Emphasis placed on understanding cattle behavior and practicing sound stockmanship.

Prerequisite: consent of instructor and program coordinator

2 credits/spring sem

Boer Goat Management II

ANIMLSCI 253. Participation in all aspects of managing a meat goat herd, including nutritional management, health management, pregnancy, neonatal care and marketing.

Prerequisite: consent of instructor and program coordinator

2 credits/spring sem

Animal Care & Welfare (Gen Ed SI)

ANIMLSCI 260. With discussion. Examination of the academic discipline of animal welfare, considering how science, ethics, legislation and economic factors impact the lives of animals.

4 credits/fall sem

Practicum

ANIMLSCI 298. Pre-professional work experience in the field of animal science under the guidance of a faculty member.

Prerequisite: consent of instructor and program coordinator

1-4 credits/both sem

Basic Animal Nutrition & Feeding

ANIMLSCI 332. With lab. Detailed study of macro and micro nutrients, their digestion, absorption, and metabolism by various domesticated animal species for maintenance and production. Introduction to feeding programs.

Prerequisite: ANIMLSCI 220 or consent of instructor and program coordinator

4 credits/spring sem

COMMUNICATION

Public Speaking

COMM 260. Blend of theory and practice in exploring public speaking. Theory of speech composition, presentation, and evaluation is discussed in relation to public discourse, civic engagement, and the ethics of persuasion. Students practice and develop their own skills by giving several formal and impromptu speeches. Requirements include the ability to pre-record speeches.

3 credits/both sem

ENGLISH WRITING PROGRAM

Writing, Identity, and Power (Gen Ed DU & I)

ENGLWRIT 111. College-level reading- and writing-intensive course. Exploration of writing as a social act that is influenced by larger systems of power. Students integrate theories of language and literacy with personal experience to reflect upon their own experiences as writers. The course prepares students for ENGLWRIT 112 by introducing practices used in process-based writing courses.

Prerequisite: performance on the Writing Placement Exam or departmental consent

4 credits/both sem

College Writing (Gen Ed CW)

ENGLWRIT 112. A first-year college-level writing course designed to help students expand their ability to write essays for academic, civic, and personal purposes and to develop their rhetorical awareness to write effectively in new social contexts. Emphasis on the writing process: prewriting, peer review, revision, and editing. Five essays required.

Prerequisite: performance on the Writing Placement Exam or ENGLWRIT 111

3 credits/both sem

LANDSCAPE ARCHITECTURE

Construction Materials

LANDARCH 294A. Introduction to materials used in landscape construction, their design potential and limitations. Design details and construction methods discussed.

3 credits/spring sem

Construction Materials Practicum

LANDARCH 294B. Uses of brick, stone, concrete, wood, and other landscape media are examined.

Prerequisite: Stockbridge students only

1 credit/spring sem

Studio III

LANDARCH 297C. Spaces/places in context introduction to design processes. The relationship of site context factors and design program to the formation of landscape spaces. A series of small problems such as: courtyard, plaza, small park, ceremonial space, each with a well defined program. Site visits and analysis, diagramming relationships between various activities, and developing an understanding of design processes.

Seven week course; first seven weeks of the semester

Prerequisite: Landscape Contracting majors only

3 credits/spring sem

Business Concepts of Landscape Contracting

LANDARCH 297M. The varied aspects of running a small landscape contracting business.

Prerequisite: Landscape Contracting majors only or consent of instructor

3 credits/spring sem

LANDSCAPE CONTRACTING

Planting Design

LANDCONT 104. Preparation for internship training; programming for such horticultural practices as pruning, planting, winter protection, and pest control in gardens and nurseries.

Seven-week course; first seven weeks of the semester.

Prerequisites: LANDCONT 112 and SUSTCOMM 335

3 credits/spring sem

Landscape Drafting

LANDCONT 105. Drafting techniques necessary in landscape work, including lettering, line work, freehand sketching, scale drawings, plans, elevations, sections, profiles, composition, and rendering. Seven-week course; first seven weeks of the semester.

Prerequisite: Landscape Contracting majors only

2 credits/spring sem

Land Form

LANDCONT 107. With lab. Practice in use of simple surveying instruments such as tapes, compasses, and levels for measurement of land surfaces. Methods of grading and graphic representations of land form (contours and profiles) explored.

Prerequisite: Landscape Contracting seniors only or consent of instructor

4 credits/fall sem

Introduction to Landscape Design

LANDCONT 112. The landscape media of plants, landforms, structures, and water. Graphic techniques, including modeling, drafting, and plan and cross-section drawings initiated. Examination of built landscape designs in the field and on paper.

Prerequisite: Landscape Contracting majors only or consent of instructor

4 credits/fall sem

Landscape Contracting Internship

LANDCONT 198Y. Required of all students majoring in Landscape Contracting. Five-month (April-August) internship in the specific field of study. Submission of reports and collections required.

Prerequisite: Landscape Contracting majors only

4 credits/spring sem

Small Property Design

LANDCONT 213. Using models, students employ the landscape media of land, plants, structures, and water to create landscape space. Real situations with local clients designed. Techniques of interviewing, photographing, site analysis, and design explored.

Prerequisite: LANDCONT 104

4 credits/spring sem

MATHEMATICS

Basic Mathematics Skills for the Modern World (Gen Ed R1)

MATH 100. Topics in mathematics that every educated person needs to know to process, evaluate, and understand the numerical and graphical information in our society. Applications of mathematics in problem solving, finance, probability, statistics, geometry, population growth.

3 credits/both sem

Precalculus Algebra with Functions and Graphs

MATH 101. First semester of the two-semester sequence MATH 101-102. Detailed, in-depth review of manipulative algebra; introduction to functions and graphs, including linear, quadratic, and rational functions.

Prerequisite: Placement Exam Part A score above 10 or MATH 011 or MATH 012

3 credits/both sem

Analytic Geometry and Trigonometry (Gen Ed R1)

MATH 102. Second semester of the two-semester sequence MATH 101-102. Detailed treatment of analytic geometry, including conic sections and exponential and logarithmic functions. Same trigonometry as in MATH 104.

Prerequisite: MATH 101

3 credits/both sem

Algebra, Analytic Geometry, and Trigonometry (Gen Ed R1)

MATH 104. One-semester review of manipulative algebra, introduction to functions, some topics in analytic geometry, and that portion of trigonometry needed for calculus.

Prerequisite: Placement Exam Part A score above 15 or MATH 011 or MATH 012

3 credits/both sem

NATURAL RESOURCES CONSERVATION

Environment and Society (Gen Ed SI)

NRC 100. Exploration of the inherently interdisciplinary environmental challenges facing society. Investigation of the impacts of human activities on forests, water, fish and wildlife populations, urban areas, and climate change.

4 credits/fall sem

Arboricultural Field Techniques I

NRC 102. Principles of rigging, advanced rope techniques, and chainsaw applications for tree pruning and removal. Lab fee required.

Prerequisite: Arboriculture and Community Forest Management majors only

2 credits/fall sem

Seminar in Arboriculture & Community Forestry

NRC 191A. Review of various professional aspects of arboriculture and urban forestry.

Seven-week course; first seven weeks of the semester.

2 credits/spring sem

Arboriculture Internship

NRC 198Y. Required of all students majoring in Arboriculture and Community Forest Management. Five-month (April-August) internship in the specific field of study. Submission of reports and collections required.

Prerequisites: NRC 232; Arboriculture and Community Forest Management majors only

4 credits/spring sem

Arboricultural Field Techniques II

NRC 210. Basic chain saw use and safety, including directional felling, bucking, and limbing trees; notch and back cuts; using wedges; cutting branches and trunks under tension. Lab fee required. Seven-week course; first seven weeks of the semester.

Prerequisite: Arboriculture and Community Forest Management majors only
2 credits/spring sem

Arboricultural Field Techniques III

NRC 213. Focus on arboricultural field techniques not taught in NRC 102 and NRC 210, such as advanced climbing, rigging, and cabling. Specific topics include split-tail climbing systems and alternative friction hitches, SRT, steel and synthetic rope cabling systems, natural union rigging, rigging with blocks and friction devices.

Prerequisite: Arboriculture and Community Forest Management majors only
2 credits/spring sem

Forests and People

NRC 225. Exploration of the unique values forests have in our culture; key characteristics of forests in the Northeast and how and why they have changed through time; historical and contemporary leaders in forest conservation; sustainable forest management principles and practices; current forest use patterns and trends and the challenges and opportunities they present in the 21st century.

3 credits/spring sem

Principles of Arboriculture

NRC 232. Introduction to arboriculture and the care of community trees. Many aspects of tree care are covered, and safety is stressed throughout the course. The course presents a balanced program of practical skills and scientific tree care.

3 credits/fall sem

Sensible Pruning for Beginners & Experts

NRC 235. Focus on all aspects of pruning - how-to, timing, tools, types, objectives - and how trees respond to pruning. The course is suitable for all levels of experience and does not require any previous knowledge of tree biology.

2 credits/spring sem

Wildlife Conservation

NRC 261. Fundamental ecology and principles of wildlife management. Emphasis on wildlife habitat and population characteristics and responses.

Prerequisite: one semester of general biology or consent of instructor
3 credits/spring sem

Commercial Arboriculture

NRC 305. Fundamentals of owning/operating a tree care business. Basic cost accounting and estimating for pruning, fertilization, and support system installation. Importance of a company safety policy will be reviewed.

Prerequisites: NRC 232; Arboriculture and Community Forest Management seniors only
3 credits/fall sem

Community Forestry

NRC 310. Management principles of municipal and utility tree care, land use problems, tree laws and ordinances.

3 credits/spring sem

Principles of Arboriculture II: Understanding the Language of Design

NRC 333. Develop skills in communicating with design professionals in this practical applications course. The ability to understand the language of design, and to use the communication tools utilized in professional architectural, design and engineering practice will be presented, through hands-on exercises and assignments. A variety of concepts, tools and techniques will be introduced and students will have the opportunity to enhance their skills at communicating design and engineering concepts to various audiences.

Seven-week course; first seven weeks of the semester. 2 credits/spring sem

RESOURCE ECONOMICS

Introduction to Resource Economics (Gen Ed SB)

RES-ECON 102. Principles of microeconomic theory for majors and non-majors. Concepts of supply, demand, markets, economic welfare and policies. Applications to resource management in business and government context emphasized.

4 credits/both sem

Environmental Economics (Gen Ed SB)

RES-ECON 262. Economic analysis of environmental problems focusing on air, water, and land pollution. Emphasis on analyzing the individual incentives that lead to environmental degradation, the valuation of environmental quality, and the design and evaluation of regulations that seek to improve environmental quality. Includes the economic analysis of global climate change.

4 credits/spring sem

Natural Resource Economics (Gen Ed SB)

RES-ECON 263. Economic analysis of natural resource use and conservation. Includes analyses of the use of fuel, forest, marine and biodiversity resources. Focuses on evaluating natural resource use in terms of efficiency and sustainability, and designing regulations for correcting inefficient and unsustainable resource markets.

4 credits/fall sem

Insects & Related Forms

STOCKSCH 101. With lab. Introduction to insect recognition, development, damage, and control. Seven-week course; first seven weeks of the semester.

Prerequisite: Stockbridge students only

2 credits/spring sem

Plant Nutrients

STOCKSCH 104. Functions of mineral nutrients in plants, effects of mineral deficiencies, and sources of these nutrients to prevent or alleviate deficiencies in crop production.

Seven-week course; first seven weeks of the semester.

Prerequisites: STOCKSCH 105; Stockbridge students only

2 credits/spring sem

Soils (Gen Ed BS)

STOCKSCH 105. With lab. Interrelationship of soils and higher plants. Physical, chemical, and biological properties of soils. Practical approach to current problems through basic soil principles.

Prerequisite: some knowledge of chemistry

4 credits/both sem

Turfgrass Insects

STOCKSCH 107. Principles and practical methods of controlling turf insect pests.

Prerequisites: STOCKSCH 101 (may be taken concurrently); Turfgrass Management majors only

2 credits/spring sem

Introductory Botany

STOCKSCH 108. With lab. Focus on the unique features of plants, how they function, how they are categorized, and how they fit into the ecosystem. Topics include classification of plants, analysis of cell structure and various plant tissues and organs, and study of sexual and asexual reproduction as well as structure and function of plant systems. In addition, students will develop a basic understanding of the processes of photosynthesis and cellular respiration.

Prerequisite: Stockbridge students only

4 credits/fall sem

Insects of Ornamentals

STOCKSCH 109. With lab. Recognition, biology, and control of major insect and mite pests attacking shade trees and woody ornamentals in the northeastern U.S. Emphasis on techniques and knowledge useful to the professional in tree care.

Prerequisite: STOCKSCH 101

3 credits/fall sem

Introductory Plant Pathology

STOCKSCH 111. With discussion. Applied introduction to plant pathology in horticultural crops. Identification, description, and management of diseases in modern horticultural production. Chemical, biological, cultural, and genetic controls and their integration.

Seven-week course; first seven weeks of the semester.

Prerequisites: STOCKSCH 108 or 100-level biology course; Stockbridge students only

2 credits/spring sem

Turfgrass Pathology Lab

STOCKSCH 112. With lab. Diagnosis and management of turfgrass diseases. Diagnosis techniques and appropriate cultural, chemical, genetic, and biological management strategies.

Seven-week course; last seven weeks of the semester.

Prerequisites: STOCKSCH 111; Turfgrass Management majors only

2 credits/spring sem

Designing a Backyard Homestead

STOCKSCH 119. Exploration of practical home-scale food production techniques, covering kitchen essentials, season extension and food preservation techniques, carpentry skills, tool use and maintenance, as well as activities like sewing, smoking meat, fermentation and making soap and candles. Soil fertility, mini orchards, mushroom foraging, farm energy and water management, greenhouse construction and vegetable growing techniques are included.

Online course.

3 credits/fall sem

Organic Farming and Gardening (Gen Ed BS)

STOCKSCH 120. With discussion. Introduction to principles of soil fertility and crop management by organic procedures which are contrasted and evaluated against conventional chemical methods of farming.

4 credits/both sem

Introduction to Sustainable Agriculture and Food Systems

STOCKSCH 165. Exploration of ethical, practical and scientific aspects of agricultural sustainability, including economic, social and environmental impacts of food and farming. Use of systems thinking tools to compare industrial and ecological agriculture.

Prerequisite: Sustainable Food and Farming majors only or consent of instructor

3 credits/fall sem

Pesticide Certification

STOCKSCH 170. Independent preparation for the online state pesticide certification exam and licensure. The State Pesticide Exam Study Manual is used and available for purchase either online or at the UMass Extension Bookstore. All exam registrations, exam sessions, results, and license applications are online. For further information, please refer to:

www.mass.gov/guides/applying-for-a-pesticide-exam-license-and-renewal-through-the-eplace-portal

Prerequisite: consent of instructor

1 credit/both sem

Introduction to Permaculture

STOCKSCH 186. Foundation in permaculture history, ethics, principles, design process, and practical applications rooted in the observation of natural systems. Students are trained to be critical thinkers, observers, and analysts of the world(s) around them and are provided with the tools necessary for designing and inspiring positive change.

3 credits/fall sem

First Year Seminar

STOCKSCH 192F. Designed to provide First-Year students with information, opportunities, and skills to ease their transition into college and build a successful foundation necessary to reach their educational goals.

Prerequisite: Stockbridge freshmen only

1 credit/fall sem

Independent Study

STOCKSCH 196. Independent work related to some area of the food crops or green industries.

Prerequisite: consent of instructor

1-4 credits/both sem

Sustainable Food & Farming Internship

STOCKSCH 198F. Required of all students majoring in Sustainable Food and Farming. Three-month (June-August) internship in the specific field of study. Submission of reports required.

Prerequisite: Sustainable Food and Farming majors only

3 credits/spring sem

Horticulture Internship

STOCKSCH 198G. Required of all students majoring in Sustainable Horticulture. Three-month (June-August) internship in the specific field of study. Submission of reports required.

Prerequisite: Sustainable Horticulture majors only

3 credits/spring sem

Permaculture Gardening at UMass

STOCKSCH 198P. Hands-on learning about permaculture basics while maintaining the on-campus permaculture demonstration gardens.

1 credit/both sem

Turfgrass Internship

STOCKSCH 198T. Required of all students majoring in Turfgrass Management. Three-month (June-August) internship in the specific field of study. Submission of reports required.

Prerequisites: STOCKSCH 230 with minimum grade of "C"; Turfgrass Management majors only

3 credits/spring sem

Plant Propagation

STOCKSCH 200. With lab. The basic principles and techniques for propagating plants by both sexual and asexual means, including seeds, cuttings, bulbs, and tissue culture. The hormonal and physiological factors affecting rooting, seed dormancy, grafting, budding, and layering.

Prerequisite: STOCKSCH 108 or 100-level biology course

3 credits/fall sem/odd years

Holistic Fruit Production

STOCKSCH 209. Principles and practices governing the establishment and management of fruit plantings from a holistic or systems perspective. Focus on four main small fruit or berry crops (strawberries, raspberries/blackberries, blueberries, and grapes), and four main tree fruit crops (apples, pears, peaches and plums). Information oriented to growing conditions found in the Northeastern U.S., including traditional practices and innovations, organic, IPM and conventional practices.

3 credits/spring sem

Retail Floral Design

STOCKSCH 210. Introductory principles and practices for designing marketable floral arrangements, including weddings and events.

Prerequisite: Stockbridge students only

3 credits/fall sem

Introductory Turfgrass Management

STOCKSCH 230. With lab. Basic principles of selecting and managing turfgrass for home lawns, parks, golf courses, and other turf areas. Topics include: climatic adaptation, grass identification, establishment practices, pest control, fertility, environmental stresses, etc.

Prerequisites: STOCKSCH 105 and STOCKSCH 108 (may be taken concurrently)

4 credits/fall sem

Irrigation & Drainage

STOCKSCH 234. Principles and management of irrigation systems for agricultural purposes; primary emphasis on golf courses and landscapes. Topics include hydraulics, water use and conservation methods, precipitation rate calculations, design and installation of irrigation systems, maintenance of irrigation system components, troubleshooting, and fiscal considerations. Drainage systems and impacts to turf environments also covered.

3 credits/spring sem

Sustainable Soil and Crop Management

STOCKSCH 270. With lab. Maintenance and enhancement of long-term productivity and sustainability of soil in food and feed production. Students will gain an integrated knowledge of soil and crop influences on cropping systems.

3 credits/fall sem

Turfgrass Physiology & Ecology

STOCKSCH 275. First half of the semester: an introduction to basic concepts in agricultural chemistry as related to the growth and culture of turf grasses. Second half of the semester: the overall growth and development of grasses, including such areas as soil fertility and mineral nutrition.

Prerequisites: STOCKSCH 230 with minimum grade of "C"; Turfgrass Management majors only
3 credits/spring sem

Independent Study

STOCKSCH 296. Sophomore-level educational project with a faculty member related to some area of the food crops or green industries.

Prerequisite: consent of instructor
1-4 credits/both sem

Practicum

STOCKSCH 298. Pre-professional work experience related to some area of the food crops or green industries.

Prerequisite: consent of instructor
1-4 credits/both sem

Permaculture Practicum

STOCKSCH 298P. Hands-on, in depth experience of how to manage and implement an installation of a permaculture design.

1-4 credits/spring sem

Principles of Weed Management

STOCKSCH 310. With lab. History of weed control; importance of weeds and their relationship to people and the environment; ecology of weeds, competition, persistence and survival mechanisms; reproduction, seed germination, and dormancy; methods of weed control, cultural, biological, chemical, and integrated pest management strategies; classification of herbicides and their selectivity; soil factors affecting herbicide performance, persistence and degradation; application equipment and calibration of sprayers; weed management systems for various crops and non-crop areas.

Prerequisite: STOCKSCH 108 or 100-level biology course
3 credits/fall sem

Greenhouse Management

STOCKSCH 315. With lab. Introduction to the greenhouse environment and the technology used in production of greenhouse crops. Greenhouse experiments in crop production; exercises on greenhouse structures, heating and cooling, growing media, crop nutrition, photoperiod control and lighting, and crop scheduling; field trip to local greenhouses.

Prerequisites: STOCKSCH 108 (may be taken concurrently) or 100-level biology course; Stockbridge students only or consent of instructor
4 credits/fall sem/even years

Organic Vegetable Production

STOCKSCH 320. Focus on organic insect, disease, and weed control, greenhouse production and construction, irrigation practices, planting and fertility, harvesting and marketing techniques, as well as how to manage money, people and natural resources.

Prerequisite: Sustainable Food and Farming majors only or consent of instructor

3 credits/fall sem

Insect Biology

STOCKSCH 326. With optional lab and field trips. How insects solve their problems of maintenance, survival, reproduction, etc., and how entomologists apply this knowledge in managing them. Topics include insect evolution, plant and insect interactions, biodiversity and conservation of insects, behavior, and insect pest management. Emphasis on various insect models (e.g., *Drosophila*) as they relate to major research in biology.

3 credits/fall sem

Tropical Agriculture

STOCKSCH 370. Tropical regions of the world, their environment and classification; influence of climate, population, and socio-economic conditions on agriculture; major crops and cropping systems of sub-humid tropics; introduction to dry land agriculture; importance of rainfall and irrigation on productivity; green revolution; desertification; present and future research needs of region, and state of agricultural technology.

3 credits/spring sem

Independent Study

STOCKSCH 396. Upper-level project for students who have completed introductory courses in biology/botany, soils and/or entomology.

Prerequisite: consent of instructor

1-4 credits/both sem

Greenhouse Practicum

STOCKSCH 398G. Focus on greenhouse venting and temperature control, maintaining outdoor gardens, harvesting of floricultural crops, post-harvest handling of floricultural crops, fertilization, propagation (by seed, cuttings, division), greenhouse maintenance, operation of greenhouse equipment (fertilizer injector).

Prerequisite: consent of instructor

1-2 credits/both sem

Turf Practicum

STOCKSCH 398T. Pre-professional work experience in the field of turfgrass management, including but not limited to golf course management, athletic field maintenance, and professional lawn care.

Prerequisites: STOCKSCH 230 with minimum grade of "C"; consent of instructor

1-3 credits/both sem

Integrated Pest Management

STOCKSCH 581. With lab. Theory and application of the principles of insect, disease, and weed pest management; emphasis on insects. Focus on pest and natural enemy sampling techniques, properties of available control strategies, underlying ecological and behavioral principles, model pest management systems and societal concerns.

4 credits/fall sem

SUSTAINABLE COMMUNITY

Plants in Landscape

SUSTCOMM 335. With lab. Introduction to 200 basic ornamental plants used in landscape architectural, horticultural, arboricultural, and other design uses; their identification, uses, and cultural requirements. Two weekly campus field trips. Workbook with sketches required.

4 credits/fall sem

ACADEMIC CALENDAR 2023 - 2024

FALL 2023

September 5	Tuesday	First day of classes
September 11	Monday	Last day to ADD or DROP any class with no record
October 9	Monday	Holiday (Indigenous Peoples Day)
October 10	Tuesday	MONDAY CLASS SCHEDULE will be followed
October 31	Tuesday	Last day to DROP with 'W' and select 'P/F'
November 6	Monday	Registration begins for Spring 2024
November 11	Saturday	Holiday (Veterans' Day)
November 21	Tuesday	Thanksgiving recess begins after last class
November 27	Monday	Classes resume
December 8	Friday	Last day of classes
December 9	Saturday	Reading Day
December 11	Monday	Final examinations begin
December 15	Friday	Last day of final examinations; semester ends
December 21	Thursday	Final grades due by Midnight

Number of class meetings: MTuWThF: 13

SPRING 2024

February 1	Thursday	First day of classes
February 7	Wednesday	Last day to ADD or DROP any class with no record
February 19	Monday	Holiday (Presidents' Day)
February 22	Thursday	MONDAY CLASS SCHEDULE will be followed
March 15	Friday	Final grades close for freshmen leaving for internship; grades submitted in May
March 17	Sunday	Spring recess begins
March 25	Monday	Classes resume
April 4	Thursday	Last day to DROP with 'W' and select 'P/F'
April 8	Monday	Registration begins for Fall 2024
April 12	Friday	MONDAY CLASS SCHEDULE will be followed
April 15	Monday	Holiday (Patriots' Day)
May 10	Friday	Last day of classes
May 11	Saturday	Reading Day
May 13	Monday	Final examinations begin
May 17	Friday	Last day of final examinations; semester ends
May 17	Friday	Commencement Weekend begins
May 19	Sunday	Commencement Weekend ends
May 23	Thursday	Final grades due by Midnight; grades also submitted for internship students

Number of class meetings: MTuWThF: 13