

A.S. Degree Handbook 2022-2023

Top 5

Global University for Agricultural Sciences



Employment

Internships

Instruction

UMassAmherst

Stockbridge School of Agriculture

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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 Regular Decision	November 5 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)
 - ~beginning with spring 2021 term through spring 2023, standardized tests are optional
 - ~SAT and/or ACT scores sent directly from the testing agency
 - ~UMass Amherst SAT code is 3917; ACT code is 1924
- Gap Explanation Statement
 - ~ if you have not been enrolled in college coursework for one or more semesters following high school graduation, please provide an explanation for the gap/s in your education

Transfer Applicants

- Common Application
- Application Fee
 - ~**nonrefundable** \$85 application fee
- Essay
- Letter of Recommendation is not required for transfer applicants
- Transcripts
 - ~official college transcripts 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)
 - ~beginning with spring 2021 term through spring 2023, 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 Statement
 - ~if you have not been enrolled in college coursework for one or more semesters following high school graduation, please provide an explanation for the gap/s in your education

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/international-first-year>

OR

International Transfer Applicants

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

Applicants with Learning Disabilities

Learn more about support for students with learning disabilities at:

<https://www.umass.edu/disability/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); 413-545-3653;

<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, please contact:

Veterans Benefits Certifying Official

Lynn Gates

23 Dickinson Hall
UMass Amherst
155 Hicks Way
Amherst, MA, 01003
413-545-5048
vetbenefits@umass.edu

Veteran Educational Benefits

Matt Bachmann, Director
Student Veteran Resource Center
22 Dickinson Hall
UMass Amherst
155 Hicks Way
Amherst, MA, 01003
413-545-0940

Student Veterans Resource Center (SVRC)

19 Dickinson Hall
UMass Amherst
155 Hicks Way
Amherst, MA, 01003
413-545-0939
veteranservices@sacl.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

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. Students may file the standard FAFSA form online at: studentaid.gov. The FAFSA should be filed before the priority filing date for maximum consideration; <https://studentaid.gov/apply-for-aid/fafsa/fafsa-deadlines>. The 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
- 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 Office
Dawn Bond, Director
235 Whitmore Administration Building
UMass Amherst
181 Presidents Drive
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 or 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 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:

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

For more information, contact the NERSP representative, 213 Whitmore Building; 413-545-0555 or the New England Board of Higher Education, 45 Temple Place, Boston, MA 02111; phone 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://stockbridge.cns.umass.edu/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 2022-2023 Academic Year****In-State**

Tuition & Fees	\$ 16,952.00
Room & Board (average)	\$ 13,823.00
Books & Supplies (average)	\$ 2,000.00
Personal & Transportation (average)	\$ 2,000.00
Total	\$ 34,775.00

New England Regional Program (NERSP)

Tuition & Fees	\$ 31,234.00
Room & Board (average)	\$ 13,823.00
Books & Supplies (average)	\$ 2,000.00
Personal & Transportation (average)	\$ 2,000.00
Total	\$ 49,057.00

Out-of-State

Tuition & Fees	\$ 38,171.00
Room & Board (average)	\$ 13,823.00
Books & Supplies (average)	\$ 2,000.00
Personal & Transportation (average)	\$ 2,000.00
Total	\$ 55,994.00

Other Fees

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

Optional Fees

Child Care	\$ 1.00	per semester
Mass PIRG	\$ 11.00	per semester
Student Health Benefit Plan	\$ 1,240.00	per semester; can be waived if student has other insurance

The Bursar's Office (<https://www.umass.edu/bursar/tuition-and-fees>) has more detailed information about 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 Min. Cum. Ave.	Probation Cum Ave. Range	Suspension 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 in order to have the academic hold removed

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 formally been suspended or dismissed (the Suspension or Dismissal will be noted 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

2-year Associate Degree

Kristina Bezanson, M.S., Program Coordinator

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
BCT	353	Construction Project Management	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 course			4
		Total	15-20
		Grand Total	60-68

LANDSCAPE CONTRACTING

2-year Associate Degree

Mike Davidsohn, MLA, Program Coordinator

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)			
LANDCONT	104	Planting Design	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
NRC	232	Principles of Arboriculture	3
OR	OR	OR	OR
STOCKSCH	230	Introductory Turfgrass Management	4
STOCKSCH	109	Insects of Ornamentals	3
			Total 13-14
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	255	Herbaceous Plants	3
			Total 17-18
			Grand Total 60-62

SUSTAINABLE FOOD AND FARMING

2-year Associate 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	192F	First Year Seminar	1
STOCKSCH	320	Organic Vegetable Production (even years)	3
STOCKSCH	350	Sustainable Soil and Crop Management	3
Total			15

SECOND SEMESTER			
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	104	Plant Nutrients	2
STOCKSCH	111	Introductory Plant Pathology	2
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
SUSFD ELECTIVES		Advisor Approved	12
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			60-62

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	182	Principles of Pesticide Management	2 cr	spring sem
STOCKSCH	326	Insect Biology	3 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	265	Sustainable Agriculture	3 cr	fall sem

Practica & Related Experiences (minimum of one class)

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	297DC	Dairy Calf Management	2 cr	fall sem
ANIMLSCI	297L	Livestock Classic	1 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	120	Organic Farming and Gardening	4 cr	both sem
STOCKSCH	370	Tropical Agriculture	3 cr	spring sem
STOCKSCH	390G	Sustainable Grape Production	3 cr	spring sem

SUSTAINABLE HORTICULTURE

2-year Associate Degree

Amanda (Mandy) Bayer, 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			
STOCKSCH	101	Insects & Related Forms	2
STOCKSCH	104	Plant Nutrients	2
STOCKSCH	111	Introductory Plant Pathology	2
STOCKSCH	198G	Horticulture Internship (June-August)	3
STOCKSCH	255	Herbaceous Plants	3
SUSHORT ELECTIVES		Advisor Approved	6-7
Total			18-19
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
STOCKSCH	182	Principles of Pesticide Management	2
SUSHORT ELECTIVES		Advisor Approved	10
Total			15-16
Grand Total			61-63

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	186	Introduction to Permaculture	3 cr	fall sem
STOCKSCH	230	Introductory Turfgrass Management	4 cr	fall sem
STOCKSCH	234	Irrigation & Drainage	2 cr	spring sem
STOCKSCH	265	Sustainable Agriculture	3 cr	fall sem
STOCKSCH	275	Turfgrass Physiology & Ecology	3 cr	spring sem
STOCKSCH	320	Organic Vegetable Production	3 cr	fall sem/even years
STOCKSCH	340	Advanced Turfgrass Management	3 cr	spring sem
STOCKSCH	350	Sustainable Soil and Crop Management	3 cr	fall sem

TURFGRASS MANAGEMENT

2-year Associate 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
STOCKSCH	232	Turf Machinery	1
(FULL SEMESTER)			
STOCKSCH	107	Turfgrass Insects	2
STOCKSCH	198T	Turfgrass Internship (June-August)	3
STOCKSCH	240	Applied Calculations in Turf Management	2
STOCKSCH	275	Turfgrass Physiology & Ecology	3
			Total 19
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	182	Principles of Pesticide Management	2
STOCKSCH	234	Irrigation & Drainage	2
STOCKSCH	340	Advanced Turfgrass Management	3
ELECTIVES		Advisor Approved	6-7
COMM	118	Introduction to Interpersonal Communication and Culture	3
COMM	260	Public Speaking	3
SPANISH course			3
OR		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 13-14
			Grand Total 62-64

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

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.

Prerequisites: 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.

Prerequisites: 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.

Prerequisites: consent of instructor and program coordinator

2 credits/spring sem

Animal Care & Welfare (Gen Ed S1)

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

Dairy Calf Management

ANIMLSCI 297DC. Experiential learning class involving the daily care, feeding, and management of pre- and post-weaned dairy calves. Attendance required at weekly management meetings and completion of a two-week feeding block. Close quarter work required with dairy calves. Under the best of circumstances (use of appropriate personal protective equipment) there is a small but significant risk of contracting zoonotic diseases. To mitigate this risk student purchase and use of coveralls and waterproof boots are required. 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 297L. 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.

Prerequisites: consent of instructor and program coordinator

1 credit/spring sem

Practicum

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

Prerequisites: 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

BUILDING & CONSTRUCTION TECHNOLOGY

Construction Project Management

BCT 353. Introduction of business concepts to students interested in design and fabrication of structures. Managing a project, contracts, marketing, scheduling, personnel, leadership, interpersonal communication, human behavior, finance, budgeting, ethical and legal considerations.

Prerequisites: consent of instructor and program coordinator

3 credits/fall sem

COMMUNICATION

Introduction to Interpersonal Communication and Culture

COMM 118. Focus on acquiring a principled understanding of everyday, face-to-face interaction as the process by which we create, maintain, and manage social experience. Students acquire vocabulary and concepts to account for, analyze, and evaluate interpersonal communication in social and cultural context.

3 credits/both sem

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. Classes are held workshop-style in computer classrooms to allow for writing, collaboration, and consultation among students and between students and teacher. The course prepares students for ENGLWRIT 112 by introducing practices used in process-based writing courses.

Prerequisite: performance on the Writing Placement Exam or consent of the Writing Program department

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

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.

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. Students will investigate 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.

Prerequisites: NRC 232 (may be taken concurrently); 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.

Prerequisite: Arboriculture and Community Forest Management majors only

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.

Prerequisites: NRC 232; 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.

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

3 credits/spring sem

Principles of Arboriculture II

NRC 333. Description unavailable.

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. This introductory botany course covers 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.

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

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

Pesticide Certification

STOCKSCH 170. Independent preparation for the 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. Exams are given at various times throughout the state. Students must apply to take the exam; applications must be submitted by the deadline date (one week prior to the exam). Refer to www.mass.gov/pesticide-examination-and-licensing or call 617-626-1785 for dates of Massachusetts exams.

Prerequisite: consent of instructor

1 credit/both sem

Principles of Pesticide Management

STOCKSCH 182. Topics include state and federal pesticide laws and regulations, pesticides and the environment, handling and storage of pesticides, classes and formulations of pesticides, safety and application equipment, understanding the pesticide label, toxicity, proper calculation and mixing of pesticides, and history of pesticide use. Includes preparation for the Massachusetts Pesticide Core Exam.

2 credits/spring 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 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 and green industries.

Prerequisites: consent of instructor and program coordinator

1-6 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

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

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

Turf Machinery

STOCKSCH 232. Principles of engines and machinery operation, maintenance, selection, and minor repair. Turf equipment emphasized. Instruction on how to train operators of equipment. Budgeting for equipment.

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

Prerequisite: Turfgrass Management majors only

1 credit/spring sem

Irrigation & Drainage

STOCKSCH 234. Principles of hydraulics and system design for turf and landscapes with an emphasis on golf courses. Irrigation systems, equipment performance, installation practices, operation procedures and troubleshooting. Drainage of sports turf also included.

2 credits/spring sem

Applied Calculations in Turf Management

STOCKSCH 240. Calculations involving area and volume measurements, fertilizer and pesticide requirements, cost analysis, seed calculations, irrigation calculations, and calculations relating to spreader and sprayer calibrations.

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

2 credits/spring sem

Herbaceous Plants

STOCKSCH 255. Study and identification of herbaceous plants; their uses as ornamental plants for home, park, and business.

Prerequisite: Stockbridge students only

3 credits/spring sem

Sustainable Agriculture

STOCKSCH 265. 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

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

1-6 credits/both sem

Stockbridge School Teaching Experience

STOCKSCH 296T. Students gain experience in teaching introductory (100-200 level) courses.

Students will be expected to demonstrate specific competencies related to labs and assisting students; lead review sessions; gain experience in all aspects of teaching a Stockbridge School class.

Prerequisites: successful completion of the course and related prerequisites in which the student plans to TA; consent of instructor

1-2 credits/spring sem

Practicum

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

Prerequisite: consent of instructor

1-6 credits/both sem

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.

3 credits/fall sem/even years

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

Advanced Turfgrass Management

STOCKSCH 340. Management of environmental stress in turfgrass. Special practices in managing high-quality turfgrass areas such as golf courses, athletic fields, and ornamental areas.

Prerequisite: STOCKSCH 275 with minimum grade of "C"

3 credits/spring sem

Sustainable Soil and Crop Management

STOCKSCH 350. 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.

Prerequisite: STOCKSCH 105 (may be taken concurrently) or consent of instructor

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

Sustainable Grape Production

STOCKSCH 390G. With lab. Exploration of grape origins, domestication, and fundamental principles of grape growing, both domestically and globally. Practices specific to the winter, such as pruning, will be included.

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

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

1-6 credits/both sem

Horticulture Industry Topics

STOCKSCH 397U. Exploration of current topics and issues in the horticulture industry. Topics include: substrates, irrigation, pollinators, native plants, invasive plants, edible landscapes, etc.

Prerequisite: Stockbridge seniors only

3 credits/fall 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 credit/both sem

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 2022 - 2023

FALL 2022

September 6	Tuesday	First day of classes
September 12	Monday	Last day to ADD or DROP any class with no record
October 10	Monday	Holiday (Indigenous Peoples Day)
November 1	Tuesday	Last day to DROP with 'W' and select 'P/F'
November 7	Monday	Registration begins for Spring 2023
November 11	Friday	Holiday (Veterans' Day)
November 22	Tuesday	FRIDAY CLASS SCHEDULE will be followed
November 22	Tuesday	Thanksgiving recess begins after last class
November 28	Monday	Classes resume
December 12	Monday	Last day of classes
December 13	Tuesday	Reading Day
December 14	Wednesday	Final examinations begin
December 17	Saturday	Second Reading Day
December 20	Tuesday	Last day of final examinations
December 27	Tuesday	Final grades due by Midnight

Number of class meetings: MTuWThF: 13

SPRING 2023

February 6	Monday	First day of classes
February 12	Sunday	Last day to ADD or DROP any class with no record
February 20	Monday	Holiday (Presidents' Day)
February 22	Wednesday	MONDAY CLASS SCHEDULE will be followed
March 10	Friday	Final grades close for freshmen leaving for internship; grades submitted in May
March 12	Sunday	Spring recess begins
March 20	Monday	Classes resume
April 10	Monday	Last day to DROP with 'W' and select 'P/F'
April 15	Saturday	Patriots Day holiday begins
April 19	Wednesday	Classes resume
April 19	Wednesday	Registration begins for Fall 2023
May 17	Wednesday	Last day of classes
May 18	Thursday	Reading Day
May 19	Friday	Final examinations begin
May 20	Saturday	Second Reading Day
May 25	Thursday	Last day of final examinations; semester ends
May 26	Friday	Commencement Weekend begins
May 28	Sunday	Commencement Weekend ends
June 1	Thursday	Final grades due by Midnight; grades also submitted for internship students

Number of class meetings: MTuWThF: 13

