BOARD OF HIGHER EDUCATION

REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs **NO**: AAC 13-16

COMMITTEE DATE: March 5, 2013

BOARD DATE: March 12, 2013

APPLICATION OF UNIVERSITY OF MASSACHUSETTS AMHERST TO AWARD THE BACHELOR OF SCIENCE IN SUSTAINABLE FOOD & FARMING

MOVED: The Board of Higher Education hereby approves the application of **the University of Massachusetts Amherst** to award the **Bachelor of Science in Sustainable Food and Farming**

Upon graduating the first class for these programs, the University shall submit to the Board a status report addressing its success in reaching program goals as stated in the application and in the areas of enrollment, curriculum, faculty resources, and program effectiveness.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b)

Contact: Aundrea Kelley, Deputy Commissioner for P-16 Policy and Collaborative Initiatives

BOARD OF HIGHER EDUCATION
March 2013
University of Massachusetts Amherst
Bachelor of Science in Sustainable Food and Farming

INTENT AND MISSION

The University of Massachusetts Amherst (UMA) has filed an expedited application for the approval of a proposed Bachelor of Science in Sustainable Food and Farming.

The UMA College of Natural Sciences plans to merge the agricultural teaching programs in the Plant, Soils and Insect Sciences Department (PSIS) and the Stockbridge School of Agriculture (SSA) to better serve the needs of students today and into the future. Faculty will be assigned to a new agriculturally focused department to be called the Stockbridge School of Agriculture. This restructuring proposal has received unanimous support from the members of the PSIS faculty.

The proposed Sustainable Food and Farming degree addresses the UMA mission of serving the public good in ways that are explicitly dedicated to economic viability, environmental integrity, and social equity, the three "pillars" of sustainability. UMA believes that a baccalaureate degree program will be recognized by the public as a significant contribution to the life and vitality of the Commonwealth.

The Bachelor of Science in Sustainable Food and Farming proposal has obtained all necessary governance approvals on campus and was approved by the UMA Board of Trustees on December 12, 2012. The required letter of intent was circulated on August 6, 2012. No comments were received.

NEED AND DEMAND

National and State Labor Market Outlook

UMA holds that the next generation of students graduating from American public universities will be faced with an unprecedented challenge to redesign food and farming systems in response to climate change, diminishing supplies of easily accessible fossil fuels, and continued financial stress. UMA asserts that industrial and technological food production systems are depleting much of nature and endangering human and nonhuman species. UMA proposes that current industrial agricultural systems must be re-imagined and recreated and that UMA graduates will need to understand complex food and agricultural systems at the population, community, and ecosystem levels. UMA notes that new academic and experiential education is required for students to learn sustainability. The proposed program is designed to elevate the concentration in Sustainable Food and Farming, which is part of the current Plant, Soil and Insect Sciences (PSIS) major, to create a new baccalaureate major.

The proposed major in Sustainable Food and Farming was developed in response to growing student demand and emerging work opportunities. UMA reports that many of their students graduating from existing majors have started small, organic farms in response to growing consumer demand. In addition, a growing number of UMA graduates reportedly have been recruited by community based organizations working in the area of public policy, advocacy, and education.

Although no formal survey was conducted by UMA, the increasing demand for locally grown, fresh fruits and vegetables is viewed by the institution as substantial evidence of need. The institution notes that opportunities for graduates are created by escalating oil prices and the cost of transportation. UMA holds that efficient integrated local farms have a niche that is likely to grow into a major component of the food system over the next 25 years. The proposed program is intended to produce graduates who are well prepared to pursue these opportunities.

Student Demand

The current concentration in sustainable food and farming has seen enrollment increase from 5 students in 2006 to 50 students in 2012. UMA projects that this trend will continue as evidenced by increasing numbers of activists, educators and small farm operators. UMA notes that mid-career professionals from many walks of life are attracted to food systems work and local farming opportunities.

UMA's two primary target markets for the proposed Sustainable Food and Farming major are:

- Recent high school graduates who have chosen to work before entering college and find employment at farms and food-based businesses serving the demand for local food. On-farm apprentices are viewed by UMA as potential students who could matriculate into a 4-year college program.
- UMA reports that mid-career professionals show interest in Sustainable Food and Farming as evidenced by UMA's new 15-credit online certificate in Sustainable Food and Farming. Enrollment in this certificate program grew from approximately 15 students in 2008 to more than 100 in 2011.

Duplication

Similar programs at area public institutions include the following baccalaureate programs:

- University of New Hampshire – *The Sustainable Agriculture and Food Systems* major is an interdisciplinary program in the Department of Natural Resources and the Environment.
- University of Maine – The *Sustainable Agriculture* major is housed in the Department of Plant, Soils and Environmental Sciences. The University of Maine has established a new minor in Sustainable Food Systems.
- University of Vermont – The *Ecological Agriculture* major is an interdisciplinary program housed in the Plant and Soil Science Department.

These programs are smaller than the UMA major in Sustainable Food and Farming. Each program is reported by UMA to graduate fewer than 10 students each year. UMA has experienced significantly more growth and attributes this growth to the proximity of major population centers coupled with an active sustainable farming community.

ACADEMIC AND RELATED MATTERS

Admission

Admission for new freshmen is determined in accordance with the Massachusetts Board of Higher Education minimum standards which emphasize strong academic preparation while in high school. Priority consideration for transfer admission is given to Massachusetts community college graduates who participate in the Joint Admissions or MassTransfer programs.

It is expected by UMA that on average, students will complete the degree requirements in eight semesters. Degree completion rates are estimated by UMA to be over 80% and it is planned that credits earned in this program will be completely transferable to other institutions.

Projected Enrollment

	# of Students Year 1	**# of Students Year 2**	**# of Students Year 3**	**# of Students Year 4***
New Full Time	20	35	35	30
Continuing Full Time	40	45	60	70
New Part Time				
Continuing Part Time				
Totals	60	80	95	100

Program Effectiveness

PROGRAM GOALS

Goal	**Measurable Objective**	**Strategy for Achievement**	**Timetable**
Attract highly qualified students	The target is to continue to increase enrollment at this rate to a maximum of 100 students in the major.	Development of additional targeted marketing materials primarily using social media.	Year 1 onward
		Participation in the new Five Colleges Sustainability Studies Certificate Program which has a national marketing plan.	Year 1 onward
		Continued participation in guest lectures at community colleges by key faculty.	Year 1 onward
		Presentations in 100-level General Education “feeder” courses.	Year 1 onward
		Using the social media to create presence in the national dialogue on sustainable food and farming.	Year 1 onward

Successful completion of an internship/practicum.	While an internship is not required at present, all students are encouraged to gain experience in an area of employment related to their career interests.	Continue to develop close ties with businesses, non-profits and government agencies in the area of sustainable food and farming.	Year 1 onward
		Through grant funding or donations, fund a position to identify, support and monitor field based apprenticeships.	Year 3 onward
		Use the emerging alumni network that is developing from recent graduates.	Year 1 onward
		Increase grant funding to support both off-campus and the highly successful practicum class, Student Farming Enterprise that developed a farm at the South Deerfield Research Farm and a Student Farmers Market in the UMass Campus Center.	Year 1 onward
		Expand the Student Farming Enterprise practicum to include fruit crops at the UMass Cold Spring Orchard in Belchertown.	Year 1 onward
		Expand the new online class, Praxis in Sustainable Food and Farming, which connects students taking summer internships in an online community of learners to enhance the learning associated with the field experience.	Year 1 onward
		Expand on market-driven research and extension program based at the UMass Farm in Deerfield MA program focusing on producing crops popular with growing immigrant markets and creating marketing strategies to sell them. The program has mainly been implemented by graduate students; it will be opened up to undergraduate students.	Year 1 onward
Graduates will continue to find professional jobs within the field	Our graduates have been successful finding employment related to their field of study and/or developing new businesses and non-profit community organizations on their own. Job placement rates within the first year of graduation will remain over 80%.	Continue to encourage students to develop internships as part of their undergraduate experience.	Year 1 onward
		Mentor students during their four years of study by encouraging enrollment in two new courses and one on-going course.	Year 1 onward
		Continue to network with professional groups, businesses, non-profit and government agencies to build employer awareness of the program.	Year 1 onward

Goal 1 -- Attract highly qualified students.
The number of students entering and leaving the program will be assessed each semester.
New students and those dropping out of the program will be surveyed to understand reasoning.

Marketing strategies will be adjusted to better attract incoming students, and the program will altered to address any problems with retention.

Goal 2 -- Successful completion of an internship/practicum.
The quality of internships will be evaluated annually. Student contacts within internships will be surveyed to determine the quality of the student's experience.

Goal 3 -- Graduates will continue to find professional jobs within the field**.**
After graduation each year and again annually, students will be tracked to determine success in acquiring and maintaining employment.

Curriculum (see Attachment A)

The proposed baccalaureate degree program in Sustainable Food and Farming was developed from the PSIS concentration in Sustainable Agriculture. As student interest in Sustainable Agriculture grew, there emerged the need for increased flexibility to serve the diverse interests of students and the many new opportunities emerging in workplaces. A concentration in Sustainable Food and Farming was created in response and has become the basis for the proposed new major.

The proposed major will require core courses in the sciences including botany, soil science and ecology, as well as math and chemistry as the foundation for the degree. Specific courses in the major will be flexible but will include at least one course in policy, four courses in crop production, and two courses in pest management.

A structured set of restricted electives will be required so that students will focus in one of three primary areas: 1) local food production, 2) food/farm policy, or 3) agricultural education. The latter two areas of study will require students to explore class work in other departments. To ensure both breadth and depth of study, students will be required to select 24 credits from three additional focus areas: 1) biophysical systems, 2) economic systems, and 3) social systems. This approach includes a close working relationship with an academic advisor. A total of 120 credits are required to complete the degree.

Field Experiences and Internships

UMA plans to encourage students to pursue an internship to gain real world experience in their chosen area of study. UMA plans that each student will create a contract with an academic advisor outlining specific activities and learning objectives. Some of the internships will be ungraded and offered through the UMA Field Experience Office. Other internships will be graded and require a gradable product which will be agreed upon with an academic advisor and an onsite supervisor, prior to the start of the internship.

Internships in the proposed program may be organized locally during the semester or taken during the summer months at locations distant from campus. Generally the academic advisor will visit the student while working on the internship at least once. The Sustainable Food and Farming Program Coordinator will maintain a database of internship opportunities and help students locate appropriate onsite supervisors. Some students will pursue international work experience or study abroad courses. A partnership relationship between the Living Routes Study Abroad Program and the UMass International Programs Office has resulted in specific semester long classes as well as January term courses that will also be appropriate for students in the proposed Sustainable Food and Farming major.

RESOURCES AND BUDGET

Fiscal (Attachment B)

The proposed Bachelor of Science in Sustainable Food and Farming is built upon the existing Sustainable Agriculture concentration within the current baccalaureate PSIS degree program. Staff, facilities, equipment and library and information technology resources will be reallocated from the PSIS department to the SSA.

Faculty and Administration (Attachment C)

Faculty will be assigned to the proposed program from the existing PSIS major (which will cease to exist). UMA expects their projected enrollment increases to be handled by the fact that students will have varied interests and will be spread out across multiple courses. No other administrative changes are planned.

Affiliations and Partnerships

UMA has held initial discussions with Greenfield Community College (GCC) and Holyoke Community College (HCC) to plan for the potential transfer of students. Individual transfer students will be accommodated on a case-by-case basis. Formal articulation agreements will be signed once the current Sustainable Food and Farming concentration becomes the proposed major. The Sustainable Food and Farming Program Coordinator is a regular guest lecturer in agriculture courses at both HCC and GCC, as well as other community colleges in the Commonwealth.

UMA expects that as the proposed major becomes articulated with colleges offering associate degrees in related fields, it is likely that the number of underrepresented and underserved students enrolled in the program will increase. The GCC program in Farm and Food Systems and the HCC program in Sustainable Agriculture, for example, are expected to provide transfer students into the proposed major. Recent graduates of the existing PSIS programs have been employed in public food and hunger advocacy positions in Boston, Springfield and Hartford. UMA sees an opportunity to attract new students to the major from these regions, through alumni in the field.

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

The external reviewers for this program were Dr. William Lamont, Professor, Department of Plant Science, Pennsylvania State University and Dr Brian Maynard, Professor, Department of Plant Sciences, University of Rhode Island.

The reviewers found the curriculum to be of sufficient strength, congruent with program goals, and with appropriate content and sequencing of courses. Admission requirements were seen as sufficiently rigorous and both reviewers noted the research and teaching credentials of the faculty to be excellent. Facilities, equipment and library resources were described as plentiful and adequate. The reviewers found the effectiveness of assessment strategy to be modest and adequate. There was the suggestion that it would be very important to establish a strong and sustainable metric to assess why students enter, and exit the program. The goal of hiring a coordinator after year three was underscored as significant in this regard.

One reviewer expressed concern for the number of faculty close to retirement and questioned whether the variety of course offerings would be manageable in the future without adding replacement faculty. The same reviewer recommended more than one visit to summer internships as a quality indicator with the caution that one should not assume that all employers are qualified to oversee an intern or to provide a positive experience, and that there is a responsibility to ensure all internships are safe and productive.

There were different perspectives in reviewers' to the proposal's prognosis that students will find gainful work after graduation. One reviewer concurred that graduates would be highly employable and very competitive. The other cautioned that the realities of the current employment market may linger, and students must also be prepared to re-skill if necessary.

The reviewers expressed enthusiasm for the program's responsiveness to pertinent and emerging issues regarding food production across the nation, in the Commonwealth of Massachusetts and specifically in the Pioneer Valley. They concluded that the proposal makes a strong case for the Sustainable Food and Farming program. They believe that it will be a successful endeavor because it builds upon on strengths, includes a competent faculty and is intentionally aligned with the goals of the SSA.

Institutional Response

Dr. Wesley R. Autio, Director of SSA at UMA expressed appreciation for the positive reviews and responded that the reviewer recommendations would be implemented and supported by the faculty. The Stockbridge School of Agriculture has also hired a part-time coordinator whose responsibilities include assistance for students in securing internships and monitoring internship experiences with regular contact.

In response to concerns regarding faculty retirements, Dr Autio responded that while the average age of SSA faculty makes several retirements likely over the next 5-10 years and it is difficult to predict the future hiring climate with accuracy, he holds that the UMA administration including the College of Natural Sciences, support agricultural education with no indications that positions will be eliminated.

Curriculum Outline (Attachment A

Core Courses (# Total courses required = 8)			
Course Number	Course Title		Credit Hours
Biological Sciences:			
PLSOILIN 102	Introductory Botany		4
STOCKSCH 105	Introductory Soil Science		4
Ecosystem Studies -- select one of the following courses:			3-4
PLSOILIN 115	Environmental Biology (SI)	3	
ENVIRSCI 214	Principles of Environmental Biology	3	
NRC 100	Society and Environment (SI)	3	
BIOLOGY 287	Introductory Ecology	3	
STOCKSCH 398P	Permaculture	4	
Math, Statistics, and Reasoning:			
Basic math	R1 course or Tier 1 Math Exemption		3-4
Analytical reasoning	R2 course		3
Chemistry – select one of the following:			4
CHEM 110	General Chemistry	4	
CHEM 111	General Chemistry	4	
Junior Writing – select one of the following:			3
STOCKSCH 380	Junior Writing	3	
STOCKSCH 382	Writing for Sustainability	3	
Select one of the following:			3
STOCKSCH 290C	Land Use Policies & Sustainable Farming	3	
STOCKSCH 397C	Community Food Systems	3	
STOCKSCH 397P	Food Justice and Policy	3	
	Sub Total Core Credits		***27-29***
Agricultural Production and Pest Management Courses (# Total courses required = 6)			
Course Number	Course Title		Credit Hours
Agricultural Production and Pest Management *Select 6 courses, with 4 at the 200 level and above and 2 pest management courses*			18-24
Agricultural Sciences:			
ANIMLSCI 103	Introduction to Animal Management	4	
ANIMLSCI 220	Physiology & Anatomy of Domestic Animals	4	
ANIMLSCI 332	Basic Animal Nutrition and Feeding	4	
STOCKSCH 120	Organic Farming & Gardening (BS)	3	
STOCKSCH 200	Plant Propagation	3	
STOCKSCH 265	Sustainable Agriculture	3	
STOCKSCH 280	Herbs, Spices, & Medicinal Plants (BS)	3	
STOCKSCH 300	Deciduous Orchard Science	3	
STOCKSCH 305	Small Fruit Production	3	
STOCKSCH 315	Greenhouse Management	4	

STOCKSCH 325	Vegetable Crop Production	4	
STOCKSCH 350	Sustainable Soil & Crop Management	3	
STOCKSCH 365	Hydroponics	3	
STOCKSCH 370	Tropical Agriculture	3	
STOCKSCH 375	Soil & Water Conservation	3	
STOCKSCH 530	Plant Nutrition	4	
STOCKSCH 575	Environmental Soil Chemistry	3	
STOCKSCH 580	Soil Fertility	3	
Pest Management:			
ENTOMOL 523	Biological Control	3	
ENTOMOL 597A	Insect-plant Interactions	3	
PLSOILIN 326	Insect Biology	3	
PLSOILIN 342	Pesticides, Environment & Public Policy	3	
PLSOILIN 397K	Insect Ecology & Management	3	
PLNTSOIL 505	General Plant Pathology	4	
PLNTSOIL 510	Disease Ecology & Management	3	
STOCKSCH 310	Weed Management	3	
	Sub Total Agricultural Production & Pest Management Credits		***18-24***
Restricted Elective Courses (# Total courses required = 8)			
Course Number	Course Title		Credit Hours
Restricted Electives *Select at least one course from each category for a total of 24 credits.* Courses may also be used to meet a General Education requirement. Up to 12 credits of these requirements may be satisfied by an internship or independent study (such as STOCKSCH 396/496 or 398/498) with approval of the Academic Advisor and the Undergraduate Coordinator. Courses may be selected from other academic departments at the University of Massachusetts or from one of the other Five Colleges when they add value to the area of study.			24
Biophysical Systems:			
BIOLOGY 421	Plant Ecology	4	
GEO-SCI 360	Economic Geography	3	
GEO-SCI 362	Conservation Geography	3	
GEO-SCI 420	Political Ecology	3	
GEO-SCI 444	Sense of Place and Environmental Behavior	3	
NRC 382	Human Dimensions in Natural Resource Management	4	
STOCKSCH	Other courses		
Economic Systems:			
ECON 308	Political Economy of the Environment	3	
ECON 366	Economic Development	3	
GEO-SCI 360	Economic Geography	3	
MANAGMNT 301	Principles of Management	3	
MANAGTMT 314	Human Resource Management	3	
MARKETNG 301	Fundamentals of Marketing	3	
MARKETNG 460	Non-profit and Social Marketing	3	

RESECON 211	Intro Statistics (R2)	4	
RESECON 212	Intro Statistics (R2)	4	
RESECON 241	Food Marketing	3	
RESECON 262	Environmental Economics	4	
RESECON 263	Natural Resource Economics	4	
RESECON 324	Small Business Finance	3	
Social Systems:			
ANIMLSCI 360	Farm Animal Care and Welfare	3	
ANTHRO 336	Political Anthropology	3	
ANTHRO 397H	Grassroots Community Development	4	
EDUCATION 377	Introduction to Multicultural Education	4	
EDUCATION 556	Education for Community Development	3	
HISTORY 383	American Environmental History	4	
NRC 409	Natural Resource Policy & Administration	3	
PLSOILIN 342	Pesticides, the Environment & Public Policy	3	
POLISCI 382	Environmental Policy	3	
PUBHLTH 602	Community Development	3	
PUBHLTH 603	Principles of Group Dynamics	3	
SOCIOL 327	Social Change	3	
SOCIOL 329	Social Movements	3	
SOCIOL 565	Sociology and Ecology of Community	3	
STOCKSCH 185	Sustainable Living	4	
	Sub Total Restricted Elective Credits		***24***

Advanced Elective Courses (# Total courses required = 2)		
Course Number	Course Title	Credit Hours
STOCKSCH 500+	Students must select two additional courses at the 500-level or higher including those that have being used to satisfy a previously listed requirement. Courses not from STOCKSCH must be approved by the Academic Adviser.	6-8
	Sub Total Advanced Elective Credits	***6-8***

Distribution of General Education Requirements Attach List of General Education Offerings (Course Numbers, Titles, and Credits)	# of Credits
Writing	6
Arts and Humanities, including Literature and Foreign Languages	8
Mathematics and the Natural and Physical Sciences	6
Biological and Physical Sciences	8
Social Sciences	8
Sub Total General Education Credits	***36***

Curriculum Summary	
Total number of courses required for the degree	30-40
Total credit hours required for degree	120

Prerequisite or Other Additional Requirements:
Note that students must take a minimum of 30 credits from within the Stockbridge School of Agriculture.

Program Budget (Attachment B)

EXPENDITURE ESTIMATES

	Year 1 2012		Year 2 2013		Year 3 2014		Year 4 2015		Year 5 2016	
	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources
Personnel Services										
Faculty	$0	$363,449	$0	$376,170	$0	$389,336	$0	$401,016	$0	$415,052
Administrators	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Support Staff	$0	$12,250	$0	$12,679	$0	$13,123	$0	$13,582	$0	$14,057
Others ***Lecturers***	$0	$49,231	$0	$50,708	$0	$52,229	$0	$53,796	$0	$55,410
Fringe Benefits ____%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Personnel	**$0**	**$424,930**	**$0**	**$439,557**	**$0**	**$454,688**	**$0**	**$468,394**	**$0**	**$484,519**
Operating Expenses										
Supplies	$0	$5,500	$0	$5,500	$0	$6,000	$0	$6,000	$0	$6,500
Library Resources	$0	$500	$0	$500	$0	$0	$0	$0	$0	$200
Marketing/Promotional Expenses	$0	$1,000	$0	$1,000	$0	$1,000	$0	$1,000	$0	$300
Laboratory Expenses	$0	$8,400	$0	$8,400	$0	$8,400	$0	$8,400	$0	$8,400
General Administrative Overhead	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other (specify)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses	**$0**	**$15,400**	**$0**	**$15,400**	**$0**	**$15,400**	**$0**	**$15,400**	**$0**	**$15,400**
Net Student Assistance										
Assistantships	$0	$50,312	$0	$52,073	$0	$53,895	$0	$55,782	$0	$57,734
Fellowships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Stipends/Scholarships	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Student Assistance	**$0**	**$50,312**	**$0**	**$52,073**	**$0**	**$53,895**	**$0**	**$55,782**	**$0**	**$57,734**
Capital										
Facilities / Campus recharges	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Equipment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Capital	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Total Expenditures	**$0**	**$490,642**	**$0**	**$507,030**	**$0**	**$523,983**	**$0**	**$539,576**	**$0**	**$557,653**

BUDGET SUMMARY OF NEW PROGRAM ONLY

	Year 1 2013	Year 2 2014	Year 3 2015	Year 4 2016	Year 5 2017
Total of newly generated revenue	**$189,816**	**$531,403**	**$860,160**	**$1,151,084**	**$1,378,948**
Total of additional resources required for program	**$0**	**$0**	**$0**	**$0**	**$0**
Excess/ (Deficiency)	**$189,816**	**$531,403**	**$860,160**	**$1,151,084**	**$1,378,948**

Justification of Financial Projections:

The expenses and revenues presented in this worksheet are based on an existing B.S. subplan. Expenses and revenues will be similar. It is expected, however, that enhanced visibility and marketing will result in an increase in the number of students enrolled in the program.

REVENUE ESTIMATES

	Year 1 2012		Year 2 2013		Year 3 2014		Year 4 2015		Year 5 2016	
Full-Time Tuition Rate: In-State	**$1,714**		**$1,714**		**$1,714**		**$1,714**		**$1,714**	
Full-Time Tuition Rate: Out-State	**$9,973**		**$9,973**		**$9,973**		**$9,973**		**$9,973**	
Mandatory Fees per Student (In-state)	**$10,898**		**$10,898**		**$10,898**		**$10,898**		**$10,898**	
Mandatory Fees per Student (out-state)	**$15,463**		**$15,463**		**$15,463**		**$15,463**		**$15,463**	
FTE # of New Students: In-State	**9**		**26**		**44**		**59**		**69**	
FTE # of New Students: Out-State	**3**		**8**		**12**		**16**		**20**	
# of In-State FTE Students transferring in from the institution's existing programs		**36**		**36**		**29**		**18**		**12**
# of Out-State FTE Students transferring in from the institution's existing programs		**12**		**10**		**10**		**7**		**4**

Tuition and Fees	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**	**Newly Generated Revenue**	**Revenue from existing programs**
First Year Students										
Tuition										
In-State	$15,426	$0	$29,138	$0	$32,566	$0	$32,566	$0	$32,566	$0
Out-of-State	$29,919	$0	$49,868	$0	$49,865	$0	$49,865	$0	$49,865	$0
Mandatory Fees	$144,471	$0	$262,581	$0	$284,377	$0	$284,377	$0	$284,377	$0
Second Year Students										
Tuition										
In-State	$0	$17,140	$15,426	$6,856	$27,424	$6,856	$29,138	$6,856	$29,138	$6,856
Out-of-State	$0	$29,919	$29,919	$9,973	$39,892	$9,973	$49,865	$9,973	$49,865	$9,973
Mandatory Fees	$0	$155,369	$144,471	$59,055	$236,220	$59,055	$262,581	$59,055	$262,581	$59,055
Third Year Students										
Tuition										
In-State	$0	$20,568	$0	$29,138	$15,426	$8,570	$23,996	$10,284	$27,424	$5,142
Out-of-State	$0	$39,892	$0	$49,865	$29,919	$29,919	$39,892	$19,946	$49,865	$9,973
Mandatory Fees	$0	$192,628	$0	$262,581	$144,471	$100,879	$214,424	$96,314	$251,683	$48,157
Fourth Year Students										
Tuition										
In-State	$0	$20,568	$0	$22,282	$0	$29,138	$15,426	$8,570	$23,996	$8,570
Out-of-State	$0	$39,892	$0	$29,919	$0	$49,865	$19,946	$29,919	$39,892	$19,946
Mandatory Fees	$0	$192,628	$0	$188,063	$0	$262,581	$129,008	$100,879	$214,424	$85,416
Fifth Year Students										
Tuition										
In-State	$0	$3,428	$0	$3,428	$0	$5,142	$0	$5,142	$5,142	$0
Out-of-State	$0	$9,973	$0	$9,973	$0	$9,973	$0	$9,973	$9,973	$0
Mandatory Fees	$0	$37,259	$0	$37,259	$0	$48,157	$0	$48,157	$48,157	$0
Gross Tuition and Fees	$189,816	$759,264	$531,403	$708,392	$860,160	$620,108	$1,151,084	$405,068	$1,378,948	$253,088
Grants	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Contracts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Campus budget allocation	$0	$441,411	$0	$456,322	$0	$471,754	$0	$485,780	$0	$502,243
Other Revenues (specify)	$0	$49,231	$0	$50,708	$0	$52,229	$0	$53,796	$0	$55,410
Total	$189,816	$1,249,906	$531,403	$1,215,422	$860,160	$1,144,091	$1,151,084	$944,644	$1,378,948	$810,741

Faculty Form (Attachment C)

Name of faculty member (Name, Degree and Field, Title)	**Ten-ured Y/N**	**Courses Taught Put (C) to indicate core course. Put (OL) next to any course currently taught online.**	**# of sec tio ns**	**Division or College of Employment**	**Full- or Part-time in Program**	**Full- or part- time in other department or program (Please specify)**	**Sites where individual will teach program courses**
Autio, Wesley Ph.D. in Pomology Professor	Y	• Botany for Gardeners (C) • Pruning Fruit Crops • Intermediate Biometry • Data Anal & Interpretation	(1) (1) (1) (2)	College of Natural Sciences	Full-time	No	• Main Campus
Barker, Allen Ph.D. in Soil Science Professor	Y	• Plant Nutrients • Org Farm & Gardeners (OL) • Plant Nutrition • Soil Fertility • Hydroponics	(1) (5) (1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Bhowmik, Prasanta Ph.D. in Weed Science Professor	Y	• Principals Weed Managmnt • Organic Weed Control • Advanced Weed Science	(1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Childs, Robert M.S. in Entomology Extension Educator	N	• Insects & Related Forms • Insects of Ornamentals • Prin. Pesticide Man	(1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Cox, Douglas Ph.D. in Floriculture Associate Professor	Y	• Plant Propagation • Greenhouse Management • Herbaceous Plants	(1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Craker, Lyle Ph.D. in Agronomy Professor	Y	• Herbs/Spice/Med Plant • Technical Writing (C)	(2) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Gerger, John Ph.D. in Olericulture Professor	Y	• Botany for Gardeners (C,OL) • Sustainable Living • Sustainable Agriculture • Writing for Sustain (C) • Project Development in SFF	(6) (1) (2) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Greene, Duane Ph.D. in Horticulture Professor	Y	• Deciduous Orchard Science • Small Fruit Production • Plant Growth Regulators	(1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Hashemi, Masoud Ph.D. in Agronomy Ext. Assistant Professor	N	• Crop & Soil Management • Pasture Management	(1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Hazzard, Ruth M.S. in Entomology Extension Educator	N	• Student Farming Enterprise	(2)	College of Natural Sciences	Full-time	No	• Main Campus
Herbert, Stephen Ph.D. in Agronomy Professor	Y	• Tropical Agriculture • Crop Physiology	(1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Mangan, Francis Ph.D. in Plant/Soil Sci. Ext. Associate Professor	N	• Vegetable Crop Production	(1)	College of Natural Sciences	Full-time	No	• Main Campus

Simkins, Stephen Ph.D. in Env. Soils Associate Professor	Y	• Introductory Soil Science (C) • Soil Microbiology • Environmental Toxicology • Organic Contaminants Soil	(1) (1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus
Spargo, John Ph.D. in Soil Fertility Ext. Assistant Professor	N	• Introductory Soil Science (C)	(1)	College of Natural Sciences	Full-time	No	• Main Campus
Xing, Baoshan Ph.D. in Env. Soil Chem. Professor	Y	• Environmental Soil Chemistry • Inorganic Contaminants Soil • Advanced Soil Chemistry • Environ Impacts Nanomaterials	(1) (1) (1) (1)	College of Natural Sciences	Full-time	No	• Main Campus