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## Sustainable Agriculture

Cycles included in report:  
Cycle #3 8/1/14 to 7/31/15

Program Name: Sustainable Agriculture  
Program Cycle: #3 8/1/14 to 7/31/15

## 1 Program Summary Stu Shafer

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HandbookProgramReviewFall2014 [PDF 2,136 KB 9/11/14]

Revised Sustainable Agriculture 9-8-2014 [PDF 659 KB 9/11/14]

### 1.1 Degree Offerings None

None

### 1.2 Certificate Offerings

Sustainable Agriculture Entrepreneurship Certificate

## 2 Program Resources

### 2.0 Reflection on Data

Sustainable Agriculture is still a relatively young and small, multidisciplinary program. Only one Full Time faculty member (Stuart Shafer) is listed for the program since only four courses (with HORT prefixes: 245, 272, 274, and 276) are specific to its certificate program. Shafer has taught all sections of these courses since 2010. Full Time faculty also teach sections of other HORT as well as HMGT and ENTR classes required for the certificate, but since these classes appear in other programs, their data are not included for Sustainable Agriculture.

Enrollment: One section of each of the four courses has been offered per academic year, so the data reflect enrollments in those single sections. Both 245 and 272 were offered in the Fall semesters, so the data for Fall semesters are consistently higher than those for Spring and Summer. Enrollments peaked in 2012-2013, and declined closer to 2011-2012 levels in 2013-2012. These trends are consistent with enrollment trends for the college as a whole. It is difficult to account for these fluctuations, but they are certainly magnified by the small size of the program to begin with. We could have included data for other courses in the certificate sequence, but it would have been impossible to account for those trends as being somehow attached to attraction to sustainable agriculture careers rather than horticulture in general, entrepreneurship, or hospitality. Following the decline in enrollments starting in 2013, the department has invigorated recruitment efforts, as will be detailed in the Goal Setting sections below.

Course completion and completer success rates are relatively high (and attrition rates correspondingly low), reinforcing qualitative observation of high levels of commitment from students who have chosen this field. Again, given the overall small numbers, fluctuations in percentages can be exaggerated by one or two students. Qualitative observation suggests that students who failed to complete or succeed in any of the four courses either had entered the program to explore whether they were truly interested in the career, and decided against that level of commitment, or had personal issues that interfered with their ability to complete the course or course requirements. For HORT 245, which is a more academic and theoretical course, that may have included difficulties with those kinds of abstract and critical thinking skills. For 272, 274, and 276, most often attrition or lack of success is based on inability (or choice) to commit the necessary hours to the practicum work on the Campus Farm.

Certificate completion rates are low, with 3 completing in 2011-2012 and 1 each in the following two AYs. This is an understandable concern, and one that will be addressed in sections 3.0 and 7.0 below. Here, it should be noted that background and interest questionnaires of incoming students each semester show that the majority are interested in taking the courses specific to Sustainable Ag (Commercial Crop Production and the Practicums) are doing so to either get practical experience in gardening, or to explore the possibility of a career in farming. Given the relatively small number

enrolled in these classes, the fact that 3 out of 15 or 1 out of 10 commit to completion of the certificate is, perhaps, a significant percentage, compared to other disciplines, such as Sociology, which I also teach. In Sociology, for example, if I have 1 student out of 100 I teach an Intro course to each year go on to major in Sociology, that seems a satisfactory outcome.

Second, it is notable that both of the completers in the last two years report that they are working in a related field. In fact, based on my informal tracking of previous graduates continues to be accurate, if all of the completers from 2011-12 had responded to the survey, the 100% placement rate would be maintained. Further, it is also worth noting that several students who took most of the coursework except one or two requirements felt they had learned what they needed and are currently also working in related fields. If our goal is to give students skills they need to be successful, and not just to obtain a credential, then these students should also be counted as successes. Unfortunately, our current data tracking has no way to account for that, other than anecdotally. This will also be addressed in section 7.0.

Finally, it should also be noted that two factors interfered with students ability to complete required courses in a timely manner: 1) some of the departments offering required courses changed their scheduling of courses offered once per year after the original proposal was accepted and the program matrix published in the catalog and original promotional materials; and 2) during the college-wide decline in enrollments in 2013-14, one of the required courses in Horticulture ( HORT 255 Pest Control Management) was cancelled due to insufficient enrollment, causing 3-4 students to either drift away without completing the certificate or attempt to do so through an independent study. Anecdotally, I have also had reports from prospective students of insufficient guidance from academic advisors in how to complete the program. All of these issues will be addressed in sections 3.0, 5.0, and 7.0 below.

### **3 Reflection on Institutional Data**

#### **3.0 Program Resources**

Expenditure and Revenues: Data are only provided for 2012-13 and 2013-14. In both cases, it is clear that the program has a net revenue benefit for the college, and is thus a low cost program. In 2012-2013, with the highest enrollment rates during this period, IR calculated expenditures were \$4,230, while tuition revenue for 136 credit hours totaled \$13,646, a net gain to the General Fund of \$9,416 from tuition alone. Further, the KBOR calculated state share of cost at \$14,781 exceeded even the tuition gain for that year. For 2012-13, even with the reduced enrollment, tuition receipts of \$6,324 exceeded IR calculated expenditures of \$6,284, and the KBOR tiered rate state share was \$4,269. So it is fair to conclude that Sustainable Agriculture is a low, or even no cost program.

Sustainable Agriculture does have an annual supplies budget of \$2,000, which was separated from the Horticulture budget in 2013-2014 and should be included in the calculation of expenditures in the data report. The data report also notes that individual course fees are not included in the analysis. Students enrolled in the Practicum sequence pay a \$50 supplies fee, which resulted in totals of \$2,350 in AY13 and \$1,000 in AY14. Again, these supplies costs should already be accounted for in the above data, but it is worth noting that enrollments are up, the supplies costs themselves are more than covered by the student fee, and even when enrollment is low they are at least partially compensated for.

Supplemental Fund Revenues: The Sustainable Agriculture program is unique in that a central component of the practical curriculum is the JCCC Campus Farm, which also generates revenues for the Supplemental Fund. This budget is managed by the JCCC Center for Sustainability. These include sales of Campus Farm and JCCC greenhouse to a public Community Supported Agriculture Coop (Rolling Prairie Farmers Alliance), the Culinary program, and Dining Services, as well as occasional tabling at the weekly pastry sale. Students in the program receive valuable marketing experience through these activities, and the revenue more than offsets expenses for seeds and supplies, resulting in a net gain to the Supplemental Fund. For the period in this review, the three year net of revenue over expenses was \$2,827.62.

### **4 Student Success**

#### **4.1 Define Student Success**

Successful students will be prepared with the basic skills to begin a career in sustainable market farming, either as an owner/operator of a market farm; an employee, manager, and/or apprentice on someone else's market farm; a member of a market farming or farm market cooperative; manager or assistant in managing greenhouse, farmers markets, or CSA; employee or manager of food and/or farm advocacy NGO, particularly one focused on sustainable agriculture; member, organizer, or manager of a farm-to-school or school garden project; or any number of related fields.

#### **4.2 Achieve/Promote Student Success**

Most students enter the Sustainable Agriculture program with minimal to moderate experience in sustainable practices in market farming. Some have experience in backyard gardening, some in larger scale commodity or livestock production, some even in working on someone else's market farm. But none of our students so far have had direct experience in running their own market produce farm as a business. The sequence of courses in the Sustainable Agriculture Entrepreneurship Certificate program was designed to prepare students with basic skills in the production and management of fresh vegetables and fruits for direct and/or wholesale markets. Skills attained by successful students include everything from identifying potential farm sites, assessing local markets, planning production, establishing and managing productive crops, managing soils and pests, safe handling and storage of produce, and marketing through various outlets, as well as basic business skills including entrepreneurship and business planning. The knowledge base for these skills is attained through the sequence of lecture/discussion course is honed in the hands-on, practical experience gained on the Campus Farm (or other, monitored outside practice).

#### **4.3 Successful Transfer**

This is a career program not currently designed for transfer.

### **5 Assessment of Student Learning Outcomes**

Assessment&#38;CurriculumChart [XLS 41 KB 9/11/14]

#### **5.1 Reflection on table provided on assessment.**

As a career certificate program, we have not yet been asked to produce a report for the Office of Outcomes Assessment. Assessment of student learning outcomes has followed the standard procedures outlined in each of the required courses, including examinations, activity projects, and self-assessment of practicum activities maintained in Student Logs.

#### **5.2 Significant Assessment Findings**

Not applicable

#### **5.3 Ongoing Assessment Plans**

Since this is an interdisciplinary program with courses required in other departments (Horticulture, Hospitality Management, and Entrepreneurship) may have been collected by those departments and are not available for this Program Review.

### **6 Curriculum Reflection**

The program completed a major revision in Fall 2014, just after the period of this review. These changes, however, had been under consideration for most of the period of the review. The primary reasons for initial consideration for the revision were 1) the recognition that incoming students were interested in aspects of sustainable agriculture beyond the entrepreneurial produce farming originally envisioned by the program proposers; 2) many students already felt they had the necessary business background but were still required to take the entrepreneurship classes; and 3) the discovery that the Certificate had an identical CIP (Classification of Instructional Program) code with Horticulture, which is not allowed by KBOR.

During the period of this review, extensive discussions among program personnel and with the program Advisory Committee led to the development of a proposal to revise the program, which finally went through the approval process this year.

Because of the KBOR issue, it became necessary to delete the previous entrepreneurship certificate and propose a new Sustainable Agriculture Certificate. This would accomplish all three of the reasons for revision by:

Moving the Entrepreneurship courses to Elective status, and changing the credit requirements for those courses to elective credits.

Allowing students to select from the list of electives coursework that best meets their individual needs, while still providing the core components of the sustainable agriculture objectives and competencies.

Allowing future development of new curricula to add to the list of electives, allowing even greater flexibility to meet student needs.

Provide a new course designation/prefix, SAG, to clearly identify the courses specific to sustainable agriculture.

Clarify the name of the introductory course in the sequence by changing it from Commercial Crop Production to Principles of Sustainable Market Farming.

As a career program none of the specifically SAG courses would be designated with General Education or Diversity status.

### **6.1 Honors Contract(s)**

No Honors Contracts are offered in the program.

### **6.2 New Course Offerings**

As noted with regard to the reasons for revision, there has been a recognition that a broader range of courses would be desirable to provide students with both flexibility and a wider range of diverse farming strategies with which to embark on their careers. The curriculum had a coherent structure with respect to the entrepreneurship focus, but lacked the desired flexibility and breadth. It was seen as essential to maintain the sustainability core of the curriculum, as this is its most unique and important contribution. There has been some discussion of deepening the sustainability component by incorporating specific instruction in organic practices and organic certification.

An interesting opportunity to internationalize the curriculum arose when Professor Shafer conducted an investigation of possible exchanges of faculty and students with agricultural colleges in Denmark. A pilot project took place in 2011-2012 with a group of Danish students spending three weeks in Kansas, but the programs were found to have too few curricular overlaps to maintain a viable placement system for the exchange. Contacts are being maintained and future opportunities will be explored.

Students have the opportunity to conduct part of their practicum activity in the community, as noted above. Some students have worked on other farms in the community, in school garden projects, and in farm equipment operations. Community instruction is not a requirement.

New course areas being discussed and explored include:

Integrated Pest Management and Organic Controls

Sustainable Soil Management

Small Scale Poultry

Small Livestock

Holistic Pasture Management

Viticulture

Pending Board approval, Shafer has been offered a sabbatical for Fall 2015. Part of the project will be consideration of new curriculum development, including consideration of a new two-year degree and possible 2+2 arrangements with state universities.

## **7 Faculty Success**

## 7.1 Departmental Accomplishments

In cooperation with Center for Sustainability, each year the Department participates in a Harvest Dinner, which has raised thousands of dollars for student scholarships. The dinner has become a major social event supported by many of the countys most prominent citizens. At each dinner, the program presents its major accomplishments, including very well received student testimonials

## 7.2 Faculty Accomplishments

Stu Shafer, Professor, Chair - served as department chair; served as KCOG chair; wrote chapter in anthology, 2013: "Where Environmental Policy is Social Policy: Nature, Food, Society and Metabolic Processes," In Environmental Policy is Social Policy - Social Policy is Environmental Policy: Toward Sustainability Policy, Walliman, Isidor, ed. Springer; development and maintenance of Sustainable Agriculture program; recommended by the Sabbatical Committee for a sabbatical leave in 2015-2016; served 3-year term as Midwest Sociological Society Exhibits Chair; attended, organized panels and sessions, and presented at regional and national conferences (Midwest Sociological Society every year; American Sociological Association 2009-2012); 2012 Participant, Supporting Community College Faculty Across the Disciplines National Science Foundation sponsored workshop, Carleton College; various campus and community presentations; 2014, Peer Review Panel, U.S. Department of Agriculture, National Institute of Food and Agriculture, Secondary Education, Two-Year Postsecondary Education and Agriculture in the K-12 Classroom (SPECA) Challenge Grants Program; 2013 Alternate PanelistPeer Review Panel, U.S. Department of Agriculture, National Institute of Food and Agriculture, Secondary Education, Two-Year Postsecondary Education and Agriculture in the K-12 Classroom (SPECA) Challenge Grants Program; 2013-present, Member, Board of Directors, Kansas Rural Center, 2014-present Treasurer; 2011-2012 Negotiations Team, Johnson County Community College Faculty Association; 2011-2012 Committee on the Status of Racial and Ethnic Minorities, American Sociological Association

## 7.3 Innovative Research, Teaching or Community Service

See 7.2

# 8 Goal Setting and Action Plan

## 8.1 Long-term Goals

1. Continue to add specifically sustainable agriculture courses to provide greater flexibility.
2. Increase cooperation and collaboration with ag programs across the state.
3. Develop a five-year strategic plan for the program.
4. Build the Campus Farm as an exemplary sustainable market farm with sound planning, record-keeping, and educational activities and optimum productivity

### 8.1.1 Actions/Resources Required

1. Component of Shafers sabbatical project.
2. Component of Shafers sabbatical project.
3. Component of Shafers sabbatical project.
4. Work with new farm manager to specifically address these goals.

### 8.1.2 Updates on Long-Term Goals

Sabbatical should commence Fall 2015. The new Campus Farm Manager has already been hired and is making substantial progress on goal 4.

## 8.2 Short-Term Goals

1. Increase enrollment by 50%
2. Increase majors by 50%
3. Increase certificate completion by 100%

### **8.2.1 Actions/Resources Required**

1. Intensify recruitment efforts.
2. Improve communication of requirements, major promotion among recruits
3. Improve coordination with Academic Advisors and channel more advising through program Chair

### **8.2.2 Updates on Short-Term Goals**

1. Advisory Committee has provided a number of suggestions for additional recruitment activities and venues.
2. New members of Advisory Committee have additional community ties for recruitment

## **9 Accreditation Standards**

### **9.1 Specialized Accreditation**

None

## **10 Resource Request/Adjustment**

BudgetChart [XLS 2,000 KB 9/11/14]

### **10.1 Long-range Adjustment to Resources**

Current resources are mostly for supplies and are generally adequate, especially given revenue generation activity of Campus Farm. If those revenues increase as planned, additional resources may be met in that way. There are a few equipment requests that will help with educational activities, and each year may include relatively minor requests for upgrades and replacements of tools and equipment. In addition, as curriculum is added according to plan, it is likely additional adjunct resources may be requested. Program chair could use additional reassigned time in the range of .5-1 credit hours to expand recruitment and outreach activities, or resources could be requested for student or alumni recruitment activities.

### **10.2 Educational Technology Support**

No additional needs at present

End of report