



Rio Salado College

Sustainable Food Systems Program Review

Review Period: Academic Years 2016-2020

Review Conducted: AY2020-21

Rio's Academic Program Review Process is an essential component of the College's Strategic Plan. The 2020-2023 work is guided by the following college-wide goals:

Rio Strategic Goal 1: Increase student goal attainment 23% by 2023 with innovative and world-class experiences

Rio Strategic Goal 2: Offer 23 new microcredentials by 2023

Rio Strategic Goal 3: Foster a culture of diversity, equity, inclusion, and belonging

Data relating to successful course completion, persistence, credentials awarded, and equity in program- and college-level outcomes across all student populations are aligned with the college-wide Key Performance Indicators that measure progress toward achieving the goals of the College's Strategic Plan.

I. Degrees and Certificates in the Sustainable Foods Program

AAS in Sustainable Food Systems

Description: The Associate in Applied Science (AAS) in Sustainable Food Systems curriculum is designed for students with diverse interests in sustainable food careers. Graduates will gain a depth of understanding of the impact of agricultural practices and policies on ecosystems, economies and human cultures. Courses include concepts supporting contemporary food movements, which focus on local and global food systems. In addition, courses will cover careers in sustainable food systems, fundamentals of sustainability, basic nutrition, organic foods production, community garden concepts, food preparation laws and sanitation guidelines, basic principles and techniques for sustainable cooking, and food practices, attitudes and beliefs of different cultures. The program also includes a Certificate of Completion (CCL) in Sustainable Food Systems. Foundational courses will equip students with the necessary hands-on skills for employment or self-employment in food service, community gardens and farm-to-table operations.

CCL in Sustainable Food Systems

Description: The Certificate of Completion (CCL) in Sustainable Food Systems curriculum is designed for students with diverse interests in sustainable food careers. Graduates will gain a foundational understanding of the impact of agricultural practices and policies on ecosystems, economies and human cultures. Courses include concepts supporting contemporary food movements, which focus on local and global food systems. In addition, courses will cover careers in sustainable food systems, fundamentals of sustainability, basic nutrition, organic foods production, community garden concepts, food preparation laws and sanitation guidelines, basic principles and techniques for sustainable cooking, and food practices, attitudes and beliefs of different cultures. Foundational courses will equip students with the necessary hands-on skills for employment or self-employment in food service, community gardens and farm-to-table operations. This Certificate will provide Continuing Education Units (CEUs) for professionals who wish to distinguish themselves with expertise in this cutting edge field.

II. Program Purpose and Mission

The purpose of the Sustainable Food Systems Program is to promote equitable access to sustainably produced nutritious and culturally appropriate food through education, outreach, and participation in food policy decisions at the local level.

Since 2018, we have been actualizing our purpose via the 5 key measures below. We originally intended to attain these goals by 2023. However, due to the disruptions to the entire food system caused by Covid, we have stretched this strategic plan to 2025:

1. Enrollments, Completions, and Alumni Relations
 - a. 20 new students per year by 2025
 - b. 20 graduates per year by 2025
 - c. Develop an alumni group on FB and/or other social media platforms
2. Curricula
 - a. Current, relevant, cutting edge
 - b. Fully mapped with clear articulation pathways to partners
 - c. Clearly articulated employment options and benefits to students
3. Partnerships
 - a. Active advisory board with at least 5 community partners present
 - b. Potential employers contact us seeking new recruits
4. Public Impact: Active participant in local food policy conversations
5. Grants and Scholarships: We are working on at least one grant with a community partner and are exploring external scholarship funding

Rio Strategic Goal 1: Increase student goal attainment 23% by 2023 with innovative and world-class experiences

Our goals surpass Rio’s Strategic Goal 1, as at present we have approximately 2 graduates per year and aim toward 20 per year by 2025.

Rio Strategic Goal 2: Offer 23 new microcredentials by 2023

Though we do not currently offer them, targeted microcredentials may better serve the needs of our students than does the full-length, financial-aid eligible CCL. This is particularly true as opportunities for food entrepreneurship are increasing now that the country as a whole is recovering from the pandemic. This was a topic of discussion at the 2021 advisory board meeting.

Rio Strategic Goal 3: Foster a culture of diversity, equity, inclusion, and belonging

Our goal of equitable access to food is thoroughly aligned with Rio’s Strategic Goal 3. As the pandemic has laid bare, there are tremendous inequalities in access to healthy and sustainably produced foods. Promotion of local food production and work at the policy level are integrally important in fostering a culture of diversity, equity, inclusion, and belonging in Maricopa County’s food system. Even before the pandemic struck, our program was redesigned in such a manner as to raise awareness to the inequalities in the food system, the health disparities that follow in the wake of those inequalities, and the financial opportunities available to smallholders and local food entrepreneurs who choose to earn a living rectifying those issues. We currently have a mutually beneficial partnership with the City of Phoenix officials who are involved in the City Phoenix’s 2025 Food Plan, and have recently learned that there is the potential for small food business support from the City of Phoenix using recovery dollars.

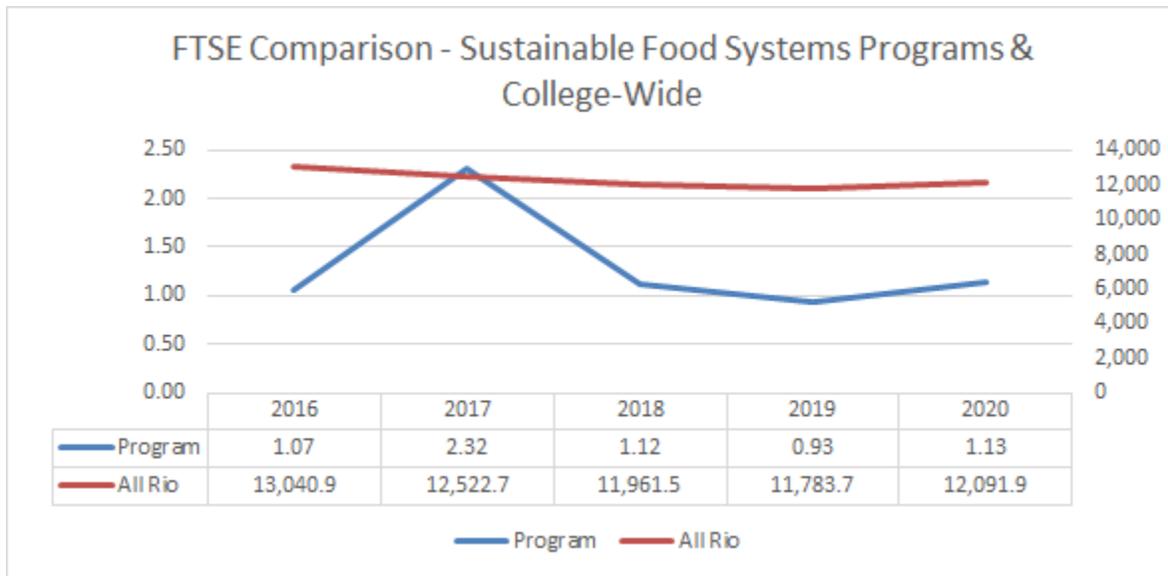
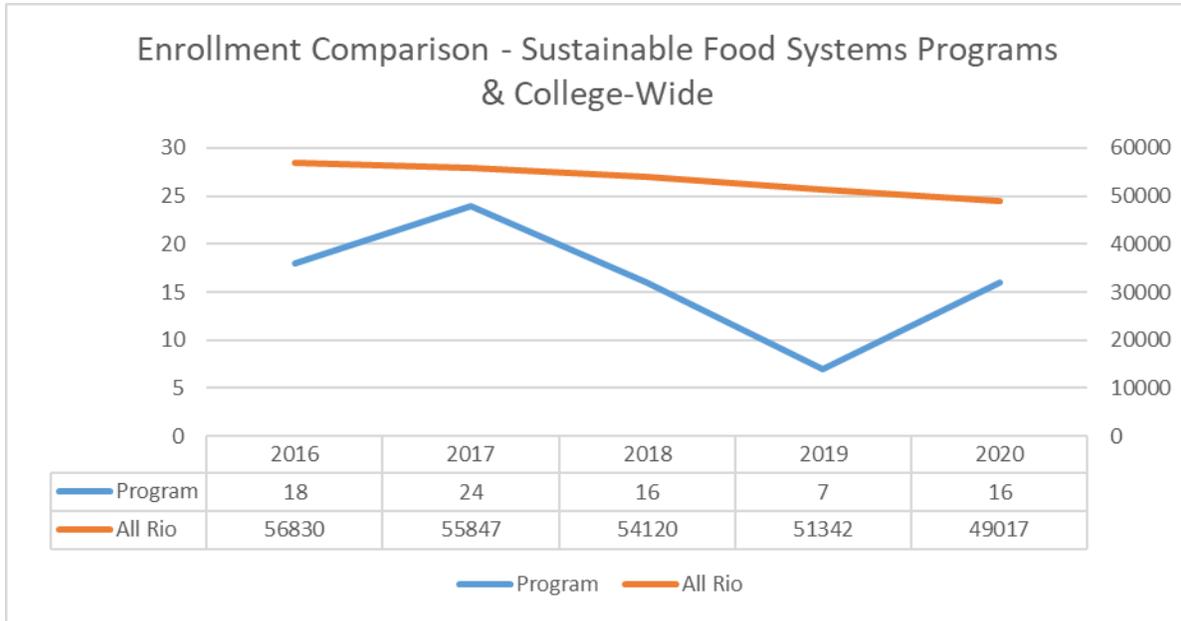
III. Student Population of the Sustainable Food Systems Program

In recent years, enrollments are trending more toward white, first-generation, and female. Students come from a broad range of ages, and fewer than half of them receive financial aid. The hope is that the introduction of microcredentials that lead directly to employment will attract learners from underrepresented populations.

	2016		2017		2018		2019		2020	
	N	%	N	%	N	%	N	%	N	%
Gender										
Female	8	44.4%	15	62.5%	11	69%	4	57.1%	12	75.0%
Male	10	55.6%	9	37.5%	5	31%	3	42.9%	4	25.0%
Ethnicity										
American Indian			1	4.2%			1	14.3%	1	6.3%

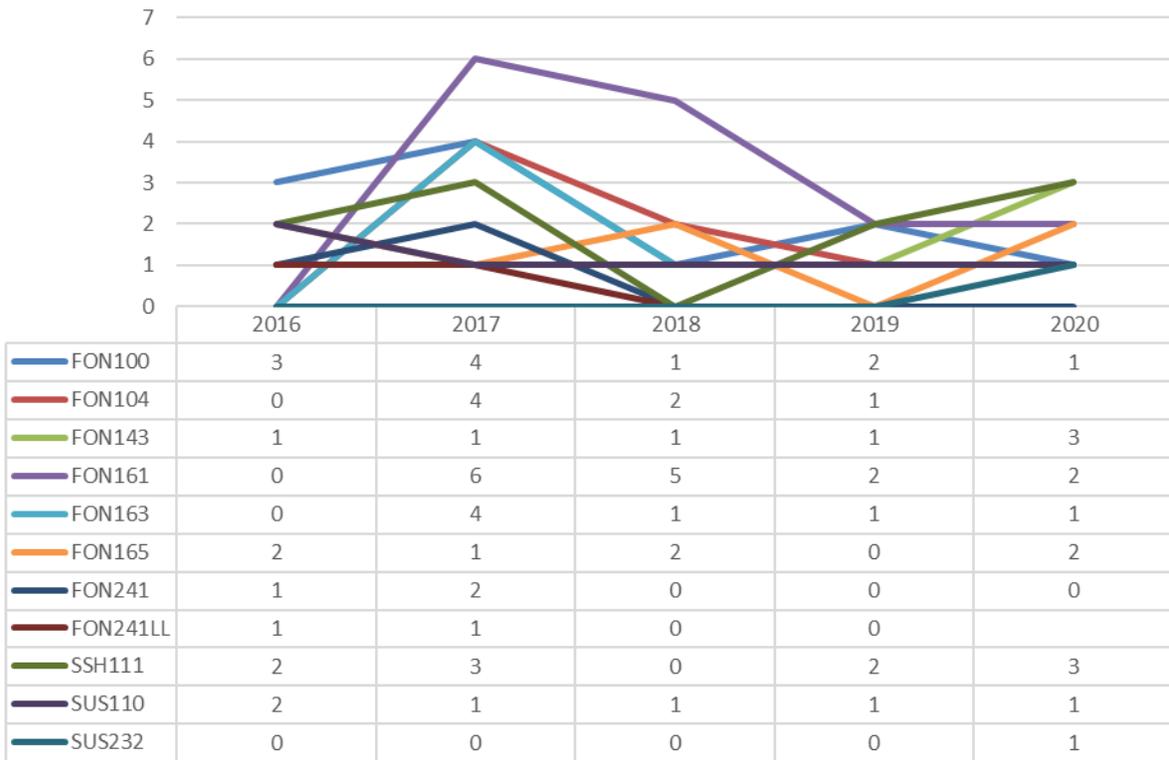
Asian	1	5.6%	1	4.2%						
Black or African American	4	22.2%	6	25.0%	4	25.0%	1	14.3%	2	12.5%
Hawaiian										
Hispanic or Latino	3	16.7%	5	20.8%	5	31.3%	1	14.3%	3	18.8%
White or Caucasian	9	50.0%	10	41.7%	6	37.5%	4	57.1%	9	56.3%
Other/Not Specified	1	5.6%	1	4.2%	1	6.3%		0.0%	1	6.3%
Age Group										
19 and under			1	4.2%	5	29.4%				
20-29	7	39%	5	20.8%	5	29.4%	2	28.6%	5	31.3%
30-39	7	39%	13	54.2%	4	23.5%	3	42.9%	4	25.0%
40-49	4	22%	4	16.7%	1	5.9%	1	14.3%	4	25.0%
50 and over			1	4.2%	2	11.8%	1	14.3%	3	18.8%
First Generation										
Yes	9	50.0%	12	50.0%	8	50.0%	4	57.1%	10	66.7%
No	9	50.0%	12	50.0%	8	50.0%	3	42.9%	5	33.3%
Other/Unknown										
Financial Aid Recipient										
Yes	10	52.6%	13	50.0%	8	47.1%	1	14.3%	7	43.8%
No	9	47.4%	13	50.0%	9	52.9%	6	85.7%	9	56.3%

As evidenced by the charts below, our Sustainable Food System has experienced a sharper enrollment decline than the rest of the College. This is quite likely due to the widely recognized impact of the pandemic on the food industry. Numerous restaurants in the Phoenix metropolitan area have closed their doors permanently, and it is a remarkably bad environment for food entrepreneurs. Due to these changes, quite frankly, the advisory board will be asked their opinion as to whether or not the continued existence of this program is advisable. It is quite likely that as the food service industry rebounds, workers will find little added benefit to any type of formal education, as employers are likely to hire them with little to no qualifications. On the other hand, the City of Phoenix has recently become devoted to the cultivation of a robust local food system and it is possible that they would like to support our students and graduates in contributing their talents to the local food scene. These pros and cons will be weighed deliberately at our upcoming advisory board meeting.



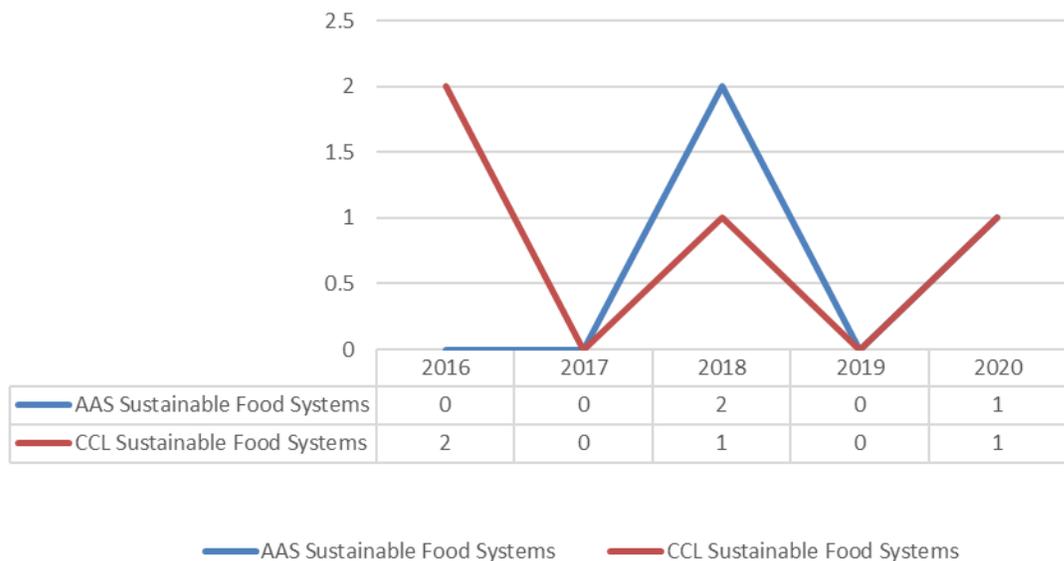
The program was mapped in 2018, with the new map taking effect in fall of 2019. The data below reflects approximately the enrollment one might expect based on the current curricular map, which is to say that enrollment trends seem to reflect the recommended course sequence likely to be followed by new students rather than random factors.

Sustainable Food Systems Course Enrollment Trends



As shown in the chart below, the program has experienced little in the way of successful completion, and our low retention and persistence rate is likely related to this outcome measure. Please refer to the section below on retention and persistence for more information.

All Awards - Sustainable Food Systems Programs



IV. Retention and Persistence

The retention and success rates have fallen on a per-course basis. While the specific cause of this sudden decline in retention cannot be identified on the basis of the information below, this reduction corresponds to numerous significant factors:

- The implementation of the LDA policy in FY2020
- The onset of the Covid pandemic in FY2020
- Revision of program learning outcomes, and corresponding revisions to FON143 and FON161, which show significant declines in performance.
- FON165 also shows significant declines in student performance. Whereas both FON143 and FON161 were revised in FY2020, FON165 had not been revised in quite a long time. This course likely showed declining retention rates due to outdated resources and numerous dead links. It has since been updated and revised as of summer 2021.

	2016		2017		2018		2019		2020	
	Retention Rate	Successful Retention								
FON100	100.0%	100.0%	75.0%	50.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%
FON104			100.0%	50.0%	100.0%	100.0%	100.0%	100.0%		
FON143	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	66.7%	66.7%
FON161			100.0%	83.3%	100.0%	80.0%	100.0%	50.0%	0.0%	0.0%
FON163			100.0%	80.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%
FON165	100.0%	66.7%	100.0%	100.0%	50.0%	0.0%			50.0%	50.0%
FON241	0.0%	0.0%	100.0%	50.0%						
FON241LL	0.0%	0.0%	100.0%	100.0%						
SSH111	100.0%	100.0%	100.0%	75.0%			100.0%	50.0%	75.0%	75.0%
SUS110	100.0%	33.3%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%	100.0%	100.0%
SUS232									100.0%	100.0%
Total	87.5%	68.8%	96.6%	72.4%	92.3%	61.5%	100.0%	80.0%	60.0%	60.0%

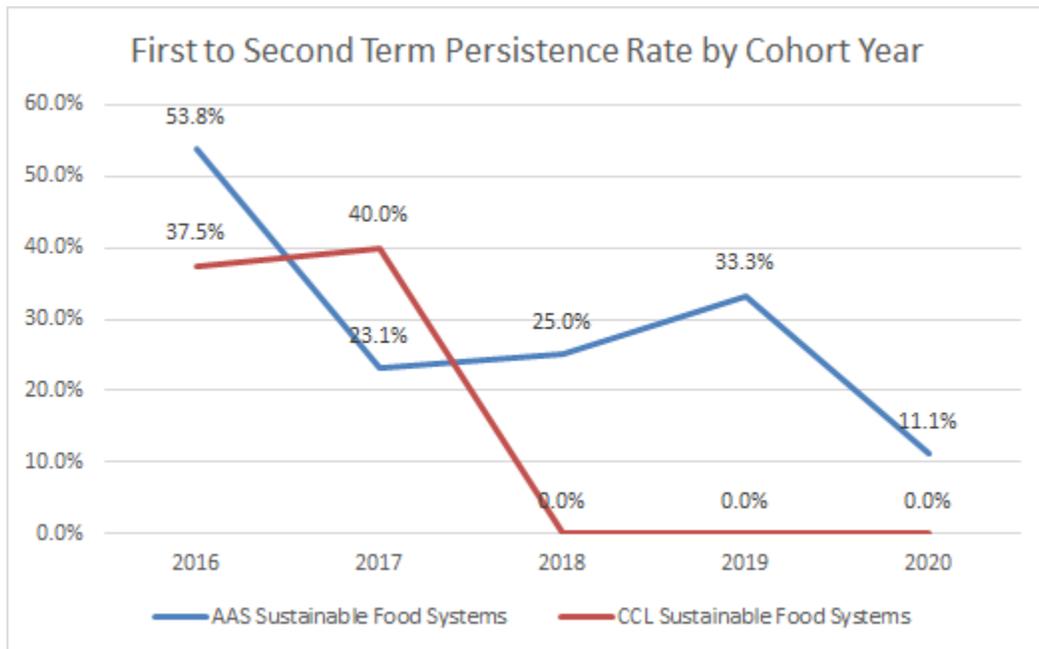
As evidenced by the following charts, the program has historically experienced somewhat low persistence rates, with a precipitous drop in 2018. There have been numerous curricular changes over the past 5 years, and the majority of the past successful completions resulted from a decrease in credits from 42 to 23, allowing the students who were already active in the program to graduate in about half the time.

Poor persistence in the program has continued despite intensive efforts to engage students throughout the semester. The department chair sends a welcome message to each new student, providing information on the suggested course sequence according to the pathway map. Another message is typically sent toward the end of each semester reminding students of the suggested course sequence and offering personal advising.

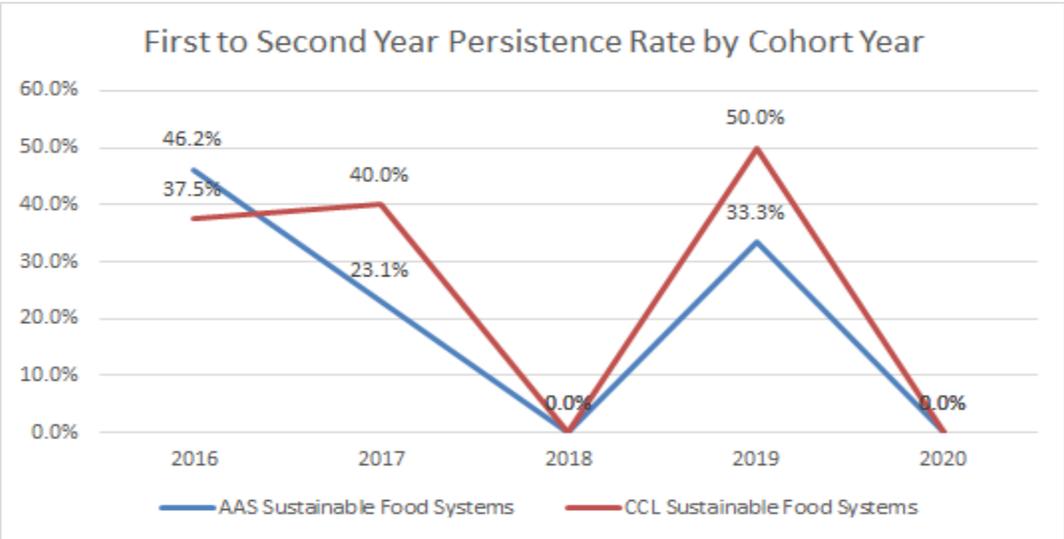
Numerous factors are converging to interfere with student persistence in the program:

- At the course level, some courses have become more academically rigorous than previous versions.
- Other courses have become outdated and/or irrelevant, probably causing students to lose confidence in the program.
- Covid has dramatically negatively impacted the food industry, diminishing the value of the program to our students.

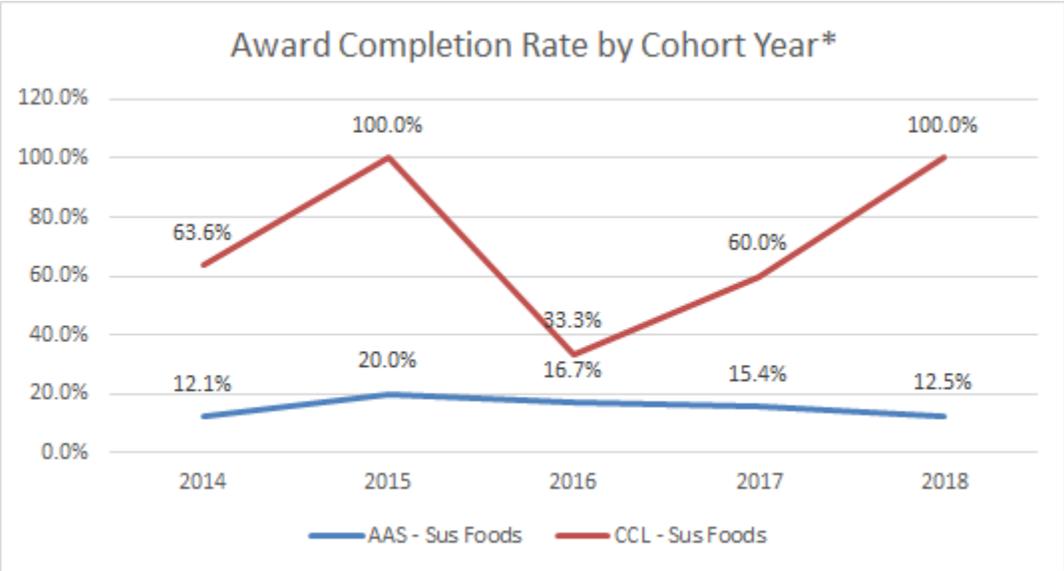
Note: The following graphs represent student cohorts based on when students first declared their academic program. For example, students who declared their program in Summer 2015, Fall 2015, and Spring 2016 are grouped into cohort year 2016.



Program	2016	2017	2018	2019	2020
AAS Sustainable Foods	53.8% (N=13)	23.1% (N=13)	25.0% (N=8)	33.3% (N=3)	11.1% (N=9)
CCL Sustainable Foods	37.5% (N=8)	40.0% (N=5)	0.0% (N=1)	0.0% (N=2)	0.0% (N=2)



Program	2016	2017	2018	2019	2020
AAS Sustainable Foods	46.2% (N=13)	23.1% (N=13)	0.0% (N=8)	33.3% (N=3)	0.0% (N=9)
CCL Sustainable Foods	37.5% (N=8)	40.0% (N=5)	0.0% (N=1)	50.0% (N=2)	0.0% (N=2)



Program	2013-14	2014-15	2015-16	2016-17	2017-18
AAS Sustainable Foods	12.1% (N=33)	20% (N=15)	16.7% (N=6)	15.4% (N=13)	12.5% (N=8)
CCL Sustainable Foods	63.6% (N=11)	100% (N=6)	33.3% (N=3)	60% (N=5)	100% (N=1)

**Cohort year based on when students first declared the program. Completion rate measured as 150% completion time based on length of program.*

In this program, as with the courses in the rest of the department, adjuncts are taking the following measures to improve student retention and success:

1. Conducting bi-weekly roster management.
2. Conducting more consistent outreach to students who have missed an assignment.
3. Implementing proactive, instructor-initiated contact with all students. Adjuncts have reported finding the practice rewarding.
4. Adding announcements pertaining to campus resources such as tutoring, writing assistance, 24/7 Ask a Librarian support, and counseling.
5. Directing students to Research Guides created in collaboration with Library Services containing relevant to the numerous disciplines represented in the department to facilitate student access to academic sources.

V. Program Learning Outcomes

AAS in Sustainable Food Systems Learning Outcomes:

1. Describe basic nutrition principles. (ENG101, ENG107, FON100, FON135, FON143, FON241)
2. Explain how food culture varies by factors such as region, country, ethnicity, religion, and climate. (ENG101, ENG107, FON100, FON143, FON241, SSH111)
3. Examine food entrepreneurship principles and processes. (ENG101, ENG107, FON104, FON135, FON163, FON165, SSH111, SUS231)
4. Apply the knowledge, skills, and habits of mind required in the range of careers available in sustainable food systems. (ENG101, ENG107, FON104, FON163, FON165, SUS231)

5. Relate high-input and low-input sustainable agricultural production to local, regional, and global impact. (ENG101, ENG107, FON135, FON143, FON161, SSH111)
6. Communicate effectively, orally and in writing, utilizing the vocabulary of food systems. (ENG101, ENG107, FON135, FON161)
7. Operationalize sustainable solutions to the problem of food waste. (ENG101, ENG107, FON135, FON161, FON163, SSH111)
8. Describe how agricultural practices have altered communities, cultures, health, and food safety. (ENG101, ENG107, FON143, FON161, SSH111)
9. Recognize the cultural, economic, environmental and sociological influences on food systems throughout history. (ENG101, ENG107, FON143, FON161, SSH111)
10. Explain food and agricultural policy effects on human, food, and economic systems. (ENG101, ENG107, FON161, SSH111)
11. Implement sustainable kitchen practices and cooking techniques, including strategies for maximizing use of whole, local, seasonal, and nutrient-dense food. (FON100, FON104, FON135, FON161, FON163, FON241)
12. Implement basic garden-to-table food production and preparation skills. (FON104, FON135, FON163)
13. Employ food safety and sanitation guidelines. (FON104, FON135, FON163, FON165)

CCL in Sustainable Food Systems Learning Outcomes:

1. Describe basic nutrition principles. (ENG101, ENG107, FON100, FON135, FON143, FON241)
2. Explain how food culture varies by factors such as region, country, ethnicity, religion, and climate. (ENG101, ENG107, FON100, FON143, FON241, SSH111)
3. Examine food entrepreneurship principles and processes. (ENG101, ENG107, FON104, FON135, FON163, FON165, SSH111, SUS231)
4. Apply the knowledge, skills, and habits of mind required in the range of careers available in sustainable food systems. (ENG101, ENG107, FON104, FON163, FON165, SUS231)
5. Relate high-input and low-input sustainable agricultural production to local, regional, and global impact. (ENG101, ENG107, FON135, FON143, FON161, SSH111)

6. Communicate effectively, orally and in writing, utilizing the vocabulary of food systems. (ENG101, ENG107, FON135, FON161)
7. Operationalize sustainable solutions to the problem of food waste. (ENG101, ENG107, FON135, FON161, FON163, SSH111)
8. Describe how agricultural practices have altered communities, cultures, health, and food safety. (ENG101, ENG107, FON143, FON161, SSH111)
9. Recognize the cultural, economic, environmental and sociological influences on food systems throughout history. (ENG101, ENG107, FON143, FON161, SSH111)
10. Explain food and agricultural policy effects on human, food, and economic systems. (ENG101, ENG107, FON161, SSH111)
11. Implement sustainable kitchen practices and cooking techniques, including strategies for maximizing use of whole, local, seasonal, and nutrient-dense food. (FON100, FON104, FON135, FON161, FON163, FON241)
12. Implement basic garden-to-table food production and preparation skills. (FON104, FON135, FON163)
13. Employ food safety and sanitation guidelines. (FON104, FON135, FON163, FON165)

Student Performance on Program Learning Outcomes*

Learning Outcome	Assessment Method	Student Count	Students @ College Level**
1	FON100; Final Exam	9	88.9%
	FON241; Final Exam	3	0.0%
2	FON143; Final Exam	6	66.7%
3	FON165; Final Exam	4	75.0%
4	SUS231; Final Project	0	No cohort data

	FON135; Final Exam	0	No cohort data
	FON163; Final Exam	7	71.5%
5	FON135; Final Exam	0	No cohort data
	FON143; Final Exam	6	66.7%
	FON161; Final Exam	12	91.7%
	SSH111; Final Project	7	100.0%
6	FON135; Final Exam	0	No cohort data
	FON161; Final Exam	12	91.7%
7	FON135; Final Exam	0	No cohort data
	FON161; Final Exam	12	91.7%
	FON163; Final Exam	7	71.4%
	SSH111; Final Project	7	100.0%
8	FON143; Final Exam	6	66.7%
	FON161; Final Exam	12	91.7%
	SSH111; Final Project	7	100.0%
9	FON143; Final Exam	6	66.7%

	FON161; Final Exam	12	91.7%
10	FON161; Final Exam	12	91.7%
11	FON135; Final Exam	0	No cohort data
	FON163; Final Exam	7	71.4%
12	FON135; Final Exam	0	No cohort data
13	FON135; Final Exam	0	No cohort data
	FON163; Final Exam	7	71.4%

**Data inclusive only of students who are declared in the program.*

***College Level defined as students earning 70% or greater.*

At least 80% of students are performing at a college level for all courses contributing to program learning outcomes 1, 6, and 10. The courses contributing to these outcomes include FON100, FON161, and SSH111. There is no cohort data for learning outcome 12, which is dependent on FON135, and it was only available beginning Fall of 2020. It had previously been under development, and scheduled to be offered Spring II of 2020 for the first time. Since it relied upon in-person labs, the course was cancelled due to Covid. Our chefs worked diligently over the summer to revise the course so that it could be completed fully online, and was offered for the first time in Fall 2020.

At least 80% of students are performing at a college level for at least one course contributing to program learning outcomes 4, 5, 7, 8 and 9. Because students are excelling in FON161 Sustainable Food Systems--undoubtedly core to the discipline and which anchors these results--these learning outcomes should be considered met by at least 80% of students at the college level. FON161 is the most relevant of the courses listed for the outcomes in question.

Fewer than 80% of students are performing at the college level for learning outcomes 2, 3, 11 and 13. Three courses, FON143, FON163, and FON165, were responsible for the fact that fewer than 80% of students were meeting those outcomes. FON165 has been revised and the new

version will go live this summer. It is up-to-date and extremely relevant for the aspiring food entrepreneur. There are numerous formative interactive assignments to provide students opportunities to engage the content. Written assignments are in particular more relevant, as students are assigned the task of writing a business plan throughout the course of the semester. Additionally, the rubric has been clarified so that students know what is expected on the assignments. FON163 was also revised and updated in FY2020, with increased numbers of formative interactive activities to enhance student learning.

FON143 was recently revised, and appears to be in need of re-revision. It is an AGEC course suitable for university transfer, is considered academic rather than occupational, and it is indeed a very rigorous course. This course may not be appropriate for delivery within an occupational program, or it is possible that the course could benefit from streamlining and sharpening of focus. Although numerous formative exercises have been added to this course, they have not proven to be as effective as necessary to sufficiently prepare students for the written assignments. Below are details of the first phase of a Plan-Do-Check-Act improvement cycle.

PLAN:

1. Reassess outcomes for FON135, FON163, and FON165 for FY2021 during summer 2022 to determine whether there has been any improvement in student performance since the courses have been redesigned and/or enhanced.
2. Revise FON143, removing extraneous content, streamlining written assignments, and adjusting formative interactive assessments.
3. Integrate the Packback online discussion tool into as many courses as possible to increase curiosity, build community, and deepen engagement with course content. It is hoped that the online community that can form within Packback will contribute to student success, retention, and persistence.

VI. College-wide Student Learning Outcomes

In addition to the program-level outcomes addressed above, Rio Salado College places a high priority on developing core competence in the following areas:

1. **Critical Thinking:** The student will demonstrate the ability to analyze information, evaluate material, use inference to draw conclusions, and use deductive reasoning and inductive reasoning at a college level
2. **Information Literacy:** The student will demonstrate the ability to determine an information need, access successfully and evaluate critically the needed information, and organize and apply the information appropriately to accomplish a given research task.

3. **Oral Communication:** The student will demonstrate the ability to prepare and present oral communication in a variety of contexts as a college-level speaker.
4. **Reading:** The student will demonstrate the ability to comprehend a variety of materials by determining the central idea and providing textual evidence, drawing inferences or valid conclusions, analyzing the author’s purpose and bias, and applying the text to a given task or course content.
5. **Writing:** On a written assignment, the student will demonstrate the ability to generate relevant and sufficient content; organize his or her thoughts coherently; adhere to the conventions of correct mechanics and sentence structure; and use correct terminology and rich vocabulary in the fulfillment, at the college level, of his or her writing assignments.

For more information: [Teaching and Learning Assessment of Student Learning](#)

Class	Critical Thinking	Reading	Information Literacy	Oral Communication	Writing
FON143	Y	Y	Y		Y
FON165			Y		Y
FON241	Y	Y	Y		Y
SSH111	Y				Y
SUS110					Y
SUS232	Y	Y	Y	Y	Y
FON143	Y	Y	Y		Y

Student Learning Outcomes data for FON143 was made available in the college-wide Dynamic Assessment Data Display (DADD) in October of 2019. Since that time, only 4 students have taken the course. They have all been white students, so there is little to report on related to equitable outcomes. This spring, during a routine DADD review, it was discovered that the rubric dimensions in our department were not consistently aligned with those in the DADD reporting tool. The “Completion” dimension used in the department does roll up to the college-wide “Writing” score and the “Analysis” dimension contributes to critical thinking and information literacy. However, the “Knowledge” dimension does not currently contribute to any of the school’s assessment categories. We had been under the impression that reading data would be captured in the Knowledge section, and the rubric is written so as to align with the school’s reading rubric as posted online. As a result of this discovery, a new rubric was developed and will be implemented in the next revision of each course. In the meantime, we have revised points distribution and descriptions to better align with the area in DADD into which the dimensions currently feed. This only occurred within the past couple of months, so there is inadequate data to assess.

FON161 currently only reports into DADD on writing. The numbers of students taking the course are extremely low, so the utility of the data is limited. The current course went live on 2/26/2010 and fewer than 10 students have taken it thus far.

FON163 currently only reports into DADD on writing. The numbers of students taking the course are extremely low, so the utility of the data is limited. The current course went live on 5/17/2010, and fewer than 10 students have taken it thus far. It is scheduled for revision and alignment with program learning outcomes and college-wide learning outcomes will also be a focal point of revision.

FON241 did not report into DADD prior to 10/14/2019. Since that time, scores on standardized assessments reveal that fewer than 80% of students are performing at college level. Some of this is likely due to the same errors as noted above. We are in the process of implementing a conversion to Packback for some of the short answer assignments in an effort to increase curiosity and, subsequently, improve critical thinking scores.

SSH111 performance at the college level is at or above 90% of all students taking the course and there are no gaps based on demographics.

SUS110 performance at the college level is at or above 90% of all students taking the course and there are no gaps based on demographics.

SUS232 performance at the college level is at or above 90% of all students taking the course and there are no gaps based on demographics.

VII. Impact of Co-curricular Programs

Learning Outcome	All Student Assessments	Assessments at College Level	Percent of Assessments at College Level	Co-Curricular Assessments	CC Assessments at College Level	Percent of CC Assessments at College Level
Critical Thinking	3	3	100.0%	0	0	
Information Literacy	13	11	84.6%	8	8	100.0%
Oral Communication						
Reading						
Writing	115	102	88.7%	24	24	100.0%

There is a positive correlation between co-curricular involvement and student academic performance in this program. Data has shown that co-curricular activities stimulate curiosity which, in turn, motivates students to engage in self-directed learning. It is for this reason that students are frequently encouraged to engage in co-curricular activities, either through direct message blasts in RioLearn’s message center letting them know of important events, or by passing this information along to their instructors for dissemination.

The department offers honors sections in FON143, SSH111 and SUS110. In FON143, students are required to write a 5-page essay using 3 scholarly sources in lieu of the standard 1-paragraph response required of other students on the Lesson 4 short answer assignment. They also have an additional final project requiring them to participate in a virtual co-curricular activity.

Honors students in SSH111 and SUS110 are required to write a 5-page essay using 3 scholarly sources in lieu of the standard 1-paragraph response required of other students on two of their short answer assignments.

VIII. Effective Teaching

Consistent efforts to support effective teaching include the following:

1. Departmental Policies:
 - a. In Spring of 2018 the new faculty chair initiated a department-wide conversation about the two disparate sets of policies in place as a result of two departments merging at that time.
 - b. Adjuncts were surveyed anonymously regarding their policy preferences.
 - c. Consistent departmental policies were established in Fall of 2019 to effectively harmonize the very different policies of two different departments that came together at the time of my hire.
2. Training
 - a. In Spring 2019 the chair conducted an alternative-format All Faculty Meeting, utilizing a combination of Facebook Live videos and Jotform quizzes to provide intensive training on departmental expectations regarding roster management, rubric utilization, and communication practices.
 - b. 97% of adjuncts completed the training and achieved passing scores on their quizzes.
3. Feedback
 - a. Every adjunct in the department received a “baseline” mini-evaluation in Spring 2019
 - b. Mini-evaluations were repeated in Fall 2019 to assess the adjunct’s integration of the new set of policies.
 - c. Adjuncts who received less than a 75% score on the mini-evaluation were invited for a 1:1 conversation with the faculty chair for additional tutoring on best practices.
4. Intervention
 - a. Mini-evaluations are conducted every semester.
 - b. Adjuncts scoring below 75% are placed on formal probation with the department.
 - c. Adjuncts on probation receive a reduced teaching load and individual sessions with the instructional coordinator to assist as needed.
5. Replacement

- a. In light of the intensive efforts made on the part of the department to train and remediate, it is now time to replace adjuncts who are unable to adhere to department policies regarding the use of rubrics, provision of substantive feedback, and communication protocols.
- b. New adjuncts receive weekly training phone calls and/or emails for the first month of teaching; monthly for the first semester; and once per semester for the next three semesters.
- c. We will soon move to a CourseArc format for onboarding training.

Below are results from end-of-course student evaluations. The majority of the data indicate that the teaching in the department is effective from the students’ perspectives. However, for FON241 and FON165 this is not the case, and the fact that the average rating is in the 3s indicates that there is work to be done with the adjuncts. Though the chair has undergone a lengthy process of working with the FON241 instructors related to the new policies, as described above, more work remains to be done.

Questions

- 1. My instructor communicated the course policies and procedures.
- 2. My instructor communicated his/her expected response time for messages and grading assignments.
- 3. My instructor responded to messages within the stated time frame.
- 4. My instructor graded assignments within the stated timeframe.
- 5. My assignment feedback explained why I earned or lost points.
- 6. My instructor’s feedback on assignments helped to increase my understanding of the course content.
- 7. My instructor provided complete responses to my questions.

Total Surveys = 390							
Course	Q1	Q2	Q3	Q4	Q5	Q6	Q7
FON100	4.73	4.79	4.38	4.19	4.37	4.14	4.38
FON143	4.82	4.76	4.47	4.53	4.44	4.41	4.53
FON241	4.36	4.44	3.91	3.92	3.84	3.59	3.87
FON241LL	4.51	4.49	4.29	4.22	4.17	4.01	4.16
FON165	4.00	3.63	3.13	3.63	3.50	3.13	3.25
FON163	4.82	4.36	4.64	4.36	4.36	4.45	4.45
SSH111	4.93	4.86	4.53	4.59	4.67	4.17	4.67
FON104	5.00	5.00	5.00	5.00	4.43	4.71	5.00

SUS110	5.00	5.20	4.56	4.60	4.30	4.40	4.50
Total	4.53	4.55	4.16	4.12	4.09	3.88	4.12

Questions rated on a Likert-type scale, range from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”)

IX. Evaluation of Curriculum

The program is evaluated by advisory boards on an annual basis. We did not have an advisory board meeting last year due to Covid. Our meeting for this academic year has been postponed until June. Meetings are arranged by the Program Manager, Michael Hodgins.

Course content is revised to align with changes in the program of study. For example, the program was updated in Fall 2019, and courses have been under revision since that time.

The possibility of offering microcredentials will be taken up by our advisory board at the June meeting.

X. Program Resources

At present, we require the use of the school’s Sustainability Cafe @Rio and the Garden @Rio. We will discuss with our advisory board whether continued use of an online, asynchronous format for FON135 is adequate to the needs of industry. If so, we may make the use of the cafe and garden an optional choice for students.

A fully functional shared-use commercial kitchen would benefit our current students and also new graduates as it would provide them with cost-effective access to facilities needed to incubate a food business. We are currently pursuing a collaborative grant with Local First Arizona to meet that need. This USDA grant would provide us with \$120,000 in funding to renovate the kitchen at our Thomas location so that it is up to commercial code. This kitchen could then be used as a teaching kitchen for our program, and could also be rented when not otherwise scheduled to students and recent graduates as part of a small food business incubator program in conjunction with Local First Arizona.

Several courses in the department utilize digital textbooks available at Rio’s library. These textbooks are current, relevant, and cost-effective for our students. Now that we are using a guided pathway model, we have program-specific advisement, and this benefits students as the advisors are becoming very familiar with the ins and outs of each program.

XI. Program Recommendations, Decisions, and Action Plans

a. Program Best Practices

In SUS we integrate field trips, with the option for virtual field trips, as an opportunity to examine how the theoretical portions of the class play out in real-life scenarios. Students reflect upon their field trip experience using the assigned reading and applying key terms to describe what they observed.

b. Program Viability

On one hand, enrollment has historically been very low in this program. In FY2020 retention and persistence followed suit, most likely due to the impact of the Covid pandemic on students and on the food service industry. This is an industry with a long history of hiring individuals with minimal qualifications, and in which education may provide a hiring edge but cannot be guaranteed to make a significant difference in ultimate career and wage attainment.

On the other hand, because of the recent attention given to inequalities and vulnerabilities coincident with the lack of sustainability in our food system, there is increased political will to address the need for sustainably and locally produced food. The City of Phoenix passed the 2025 Food Plan just prior to the onset of the pandemic, and they intend to utilize recovery dollars to promote small food businesses and enhance food accessibility. It is possible that deepening our partnership with the City of Phoenix could result in increased opportunities for our students.

A meeting is planned for June 2021 to further discuss with our advisory board members whether the program is viable as is, needs modification, or is no longer necessary in any form. My sense of the situation is that the CCL program would benefit from a clearer emphasis on occupational needs, with “academic” courses being eliminated from the certificate requirements.

Job Outlook¹: Employment of food service managers is projected to grow 1 percent from 2019 to 2029, slower than the average for all occupations.

Food service managers will be needed to oversee food preparation and service as people continue to dine out, purchase takeout meals, and have food delivered to their homes or workplaces. However, more dining establishments are expected to rely on chefs and head cooks

¹ Food Service Managers was used for this example because it was seen as the fastest growing occupation related to the Sustainable Food Systems program.

instead of hiring additional food service managers, which should limit employment growth in this occupation. (Source: <https://www.bls.gov>)

Job Prospects: Although job opportunities should be good overall, they should be best for food service managers with several years of work experience in a restaurant or food service establishment. Most job openings will result from the need to replace managers who leave the occupation.

Jobseekers with a combination of work experience in food service and a bachelor’s degree in hospitality, restaurant, or food service management should have an edge when competing for jobs at upscale hotels and restaurants. (Source: <https://www.bls.gov>)

Pay: The median annual wage for food service managers was \$56,590 in May 2020. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$33,880, and the highest 10 percent earned more than \$94,770.

In May 2020, the median annual wages for food service managers in the top industries in which they worked were as follows:

Accommodation \$67,090

Special food services \$62,830

Restaurants and other eating places \$53,660

Most food service managers work full time. Managers at fine-dining and fast-food restaurants often work long shifts, and some work more than 40 hours per week. Managers of food service facilities or cafeterias in schools, factories, or office buildings usually work traditional business hours. Managers may be called in on short notice, including evenings, weekends, and holidays. Some managers may also manage multiple locations.

Source: <https://www.bls.gov>

Projections for Employment² : Jobs for Sustainable Food Systems are expected to grow by 11%, or 139,530 jobs between 2018-2028.

² Occupations that are associated with Sustainable Food Systems.

Estimated Employment and Projected Growth*

Geographic Area (Estimated Year-Projected Year)	Estimated Employment	Projected Employment	Numeric Change	Percent Change	Job** Openings
Arizona (2018-2028)	81,982	95,111	13,129	11%	139,530

*Food Service Managers
 First-Line Supervisors of Food Preparation and
 Serving Workers
 Agricultural Inspectors

** Includes due to separation, due to transfers
 and growth

Source:

<https://www.azcommerce.com/oeo/labor-market/employment-projections/#content-block-1>

c. Action Plans

On June 15th we conducted an open and frank conversation with our community stakeholders in the sustainable food industry, such as Local First Arizona and the City of Phoenix, regarding the viability of our Sustainable Food Systems Program, and its benefits to students and our community. Their recommendation were to continue the program but with the following, substantive, modifications:

1. Reduce the CCL to the following, while keeping the AAS essentially as is:
 - a. FON 104: Certification in Food Service Safety and Sanitation I
 - b. FON135: Sustainable Cooking
 - c. FON163: Sustainable Kitchen Practices
 - d. FON165: Food Entrepreneurship
2. Emphasize skills needed for food service and food entrepreneurship.
3. Integrate diversity, equity, inclusion, and belonging into every single course, and utilize our program to empower BIPOC members of our community who are currently working to address food inequities in their communities. Included with this is a desire to integrate various culturally relevant kitchen practices specific to a variety of ethnic groups.
4. Emphasize the what-where-and-when of sustainable foods in every course.
5. Integrate industry-wide changes brought about by Covid, such as curbside service, food trucks, delivery models, and the increased need for food entrepreneurship in a post-Covid world.

6. Explore work-study opportunities and integrate students' current employment in food service as ways to enhance their learning and give credit for the work they are doing.
7. Consider changing titles of courses to highlight the transformative changes currently underway in the local food system and appeal to the community members currently targeted by the City of Phoenix's food plan and related abundance of Covid-relief funding. For example, possibly changing "Sustainable Cooking" to "Revolutionary Cooking," and changing "Sustainable Kitchen Practices" to "Inclusive Kitchen Practices."
8. Consider microcredentials in the areas of food service and food entrepreneurship.

d. Assessment Team Recommendation

Continue program and implement stated action plan. Next review due {3-5 years}.

Continue program, implement stated action plan, and address comments listed below. Spotlight follow-up report due fall 2023.

Refer to college administration to determine program viability.

Discontinue program.

Comments: On 6/29/21 a meeting was held with the acting VPAA, Program Chair, and Assessment Team members to discuss program viability. The decision was made to pursue external funding opportunities for program updates and student scholarships in addition to pursuing advisory council, college, and district approval for the following curricular changes:

- Reduce the credits for the Sustainable Foods CCL to a 10-credit microcredential that includes the courses listed in Action Plan c1.
- Offer two additional microcredentials in food service and food entrepreneurship

Update: On 7/21/21 proposals were generated for program and course revisions. The content was shared via email with the advisory board members present at the June meeting. They voted unanimously in favor of the changes. The curriculum office at RSC has been notified, and we will move forward with the proposals via the curriculum committees at college and district levels.

A follow-up report is due in fall of 2023.