

Bakersfield College 2018-2019 Program Review – Annual Update

Program Name: **Food Science and Technology**

Bakersfield College Mission: Bakersfield College provides opportunities for students from diverse economic, cultural, and educational backgrounds to attain Associate and Baccalaureate degrees and certificates, workplace skills, and preparation for transfer. Our rigorous and supportive learning environment fosters students' abilities to think critically, communicate effectively, and demonstrate competencies and skills in order to engage productively in their communities and the world

Describe how the program supports the Bakersfield College Mission:

The Food Science and Technology degree and certificate program will provide students the opportunity to receive high quality workplace training and education in increasingly high demand, high paying job positions in Kern County and surrounding areas. Depending on the student's goals, they can obtain an Associate's degree and/or a Certificate of Achievement in Food Science and Technology. Students can choose to continue their education at a higher level or enter the workforce directly out of the program which supports the college's mission.

Instructional Programs only:

A. List the degrees and Certificates of Achievement the program offers

**Associate's Degree in Food Science and Technology
Certificate of Achievement in Food Science and Technology**

B. If your program offers both an A.A. and an A.S. degree in the same subject, please explain the rationale for offering both and the difference between the two.

N/A

C. If your program offers a local degree in addition to the ADT degree, please explain the rationale for offering both.

N/A

Program Goals:

A. List the program's current goals. For each goal (minimum of 2 goals), discuss progress and changes. If the program is addressing more than two (2) goals, please duplicate this section. Please provide an action plan for each goal that gives the steps to completing the goal and the timeline.

1. Program Goal:

Food Science and Technology is a new program.

Develop a comprehensive degree and certificate of achievement program to meet the needs of industry and universities. Continue to work with universities that offer food science and technology degrees in aligning courses to create an efficient system helping students transfer and achieve a 4-year degree.

List the institutional goals from the Bakersfield College Strategic Plan that will be advanced upon completion of this goal?

(Student Learning, Student Progression and Completion, Facilities, Leadership and Engagement)

Student Learning

Student Progression and Completion

Leadership and Engagement

Progress on goal achievement:

Ongoing – goal is to have the program approved and ready to offer to students by summer 2019.

Status Update – Action Plan and any link to Resource Requests:

Food Science and Technology Advisory Committee has met (6/6/2018) and agreed upon a comprehensive program to meet the needs of industry and universities.

The program was submitted and approved by the colleges in the Central Mother Lode Region with 8 endorsement approval votes from the following colleges: Bakersfield, Cerro Coso, COS, Fresno, Reedley, WHL, Columbia, and MJC.

Courses are currently being uploaded into eLumen for curriculum committee approval.

Meet with CalPoly SLO, Davis, and Fresno State staff members on a regular basis to ensure success in student transfers to 4-year universities.

Resource Request: Funding for travel and CATA dues will be required for achievement of the goal.

2. Program Goal:

Increase student awareness and enrollment of the program.

List the institutional goals from the Bakersfield College Strategic Plan that will be advanced upon completion of this goal?

(Student Learning, 2. Student Progression and Completion, 3. Facilities, 4. Leadership and Engagement)

Student Learning

Student Progression and Completion

Leadership and Engagement

Progress on goal achievement:

On-going

Status Update – Action Plan and link to Resource Requests

Attend outreach events throughout the year to promote the program to the community, high school students, and current college students.

Work with CTE outreach department to promote the program.

3. Program Goal:

Increase laboratory space to ensure students receive the optimal learning environment and are able to complete the degree or certificate of achievement in a timely manner.

The addition of facilities will also allow additional courses to be taught each semester, increasing the number of students entering and completing the program.

Dedicated laboratory space will be vital to accommodate specific lab equipment and machinery required for the Food Science and Technology program to ensure the safety of both students and the equipment.

List the institutional goals from the Bakersfield College Strategic Plan that will be advanced upon completion of this goal?

(Student Learning, 2. Student Progression and Completion, 3. Facilities, 4. Leadership and Engagement)

**Student Learning
Student Progression and Completion
Facilities**

Progress on goal achievement:

On-going

Status Update – Action Plan and link to Resource Requests

Facilities Request: Work with the Agriculture Department, and Measure J to ensure current and future goals of the Food Science and Technology program are met in providing students with adequate and safe laboratory space.

4. Program Goal:

Offer students current industry laboratory materials and equipment to learn with.

List the institutional goals from the Bakersfield College Strategic Plan that will be advanced upon completion of this goal?

(Student Learning, 2. Student Progression and Completion, 3. Facilities, 4. Leadership and Engagement)

Student Learning

Student Progression and Completion

Progress on goal achievement:

On-going

8/31/2018 - Received a donation of a commercial olive mill from an industry partner to support the goal of offering students industry quality materials and equipment.

Status Update – Action Plan and link to Resource Requests

Resource Request: Funding will be required to ensure students are able to complete the required labs with the necessary materials and equipment.

B. List new or revised goals (if applicable)

Program Goal: This is a new program so the goals above are new goals. There are no revised goals at this time.

List the institutional goals from the Bakersfield College Strategic Plan that will be advanced upon completion of this goal?

(Student Learning, Student Progression and Completion, Facilities, Leadership and Engagement)

Progress on goal achievement:

Status Update – Action Plan and link to Resource Requests:

Program Analysis:

Take a look at your trend data (all programs should have some form of data that is used to look at changes over time). *All programs will answer the following questions unless otherwise indicated.*

1. Please report on any unexpected changes or challenges that your program encountered this cycle: **N/A**
2. How does your trend data (or other data your area collects) impact your decision making process for your program? **N/A**
3. Evidence of Department Dialog of data **N/A**
 - If you have had time to review and discuss your program's data with members of your department, attach documentation of your discussion. Documentation can come in the form of minutes from meetings or retreats, email dialog or any other ways that show substantive discussion.
4. Were there any changes to student demographics (age, gender, or ethnicity) for the past cycle? **N/A**
5. Were there any changes to student success and retention rates for face-to-face and online courses? (instructional only) **N/A**
6. Equity gaps **N/A**
 - Please look for large differences, or gaps, between top performing groups and others. Consider how you could identify the reasons behind these gaps, and if there changes that could be made to reduce them. For in depth review of equity issues, and on changes that are being made campus-wide, please refer to the current [Bakersfield College Student Equity Plan](#).
7. Please describe any recent achievements of your department, including but not limited to faculty who have won awards or distinctions, new projects your department has implemented, professional development work, professional conference presentations or recently published work.

The Food Science and Technology program was awarded Strong Workforce funding for supplies and equipment.

The lead faculty for Food Science and Technology attended QCQI (FSPCA Preventative Controls for Human Food) training and was awarded a 20 Hour PCQI certificate of training from Food Safety Preventative Controls Alliance.

The lead faculty for Food Science and Technology has met with local community colleges and universities for planning and collaboration in this degree field.

The program was submitted and approved by the colleges in the Central Mother Lode Region with 8 endorsement approval votes from the following colleges: Bakersfield, Cerro Coso, COS, Fresno, Reedley, WHL, Columbia, and MJC.

8. The college has embarked on significant efforts such as **Guided Pathways, affinity groups and completion coaching communities** to improve the success and completion rates of our students. Please describe what your program/department/office is doing to contribute to these efforts.
The lead faculty for Food Science and Technology attended a regional Guided Pathways conference June 1 – 2, 2018 to discuss Food Science and Safety pathways.

The lead faculty for Food Science and Technology is the lead for Bakersfield College Agriculture, Nutrition, and Culinary Pathway and has been involved in creating videos, websites, communication, and outreach events for the pathway.

9. Explain your role if you are involved in Dual Enrollment, Inmate Education, or Rural Initiatives.

The lead faculty for Food Science and Technology has been in communication with outlying rural areas discussing the possibilities of offering the Food Science and Technology program both through dual enrollment and rural BC Campuses.

Analysis of Received Resources from Previous Cycle

Discuss the type of resources you received and their Impact on program effectiveness?

Facilities: N/A

If your program received a building remodel or renovation, additional furniture or beyond routine maintenance, please explain how this request or requests impacts your program and helps contribute to student success.

- 1: Space Allocation
- 2: Renovation
- 3: Furniture
- 4: Other
- 5: Beyond Routine Maintenance

Technology: N/A

If your program received technology (audio/visual – projectors, TV's, document cameras) and computers, how does the technology impact your program and help contribute to student success?

- 1: Replacement Technology
- 2: New Technology
- 3: Software
- 4: Other _____

Other Equipment

If your program received equipment that is not considered audio/visual or computer equipment technology, please explain how these resources impact your program and help contribute to student success.

The Food Science and Technology program has received Strong Workforce funding to allow for program development and to purchase required supplies and equipment for program implementation. This resource will greatly affect student success by giving them the necessary materials for in-depth learning in both educational concepts and hands-on skills required in the food industry.

Conclusion:

Present any conclusions and findings about the program. This is an opportunity to provide a brief abstract or synopsis of your program's current circumstances and needs. Consider this a snapshot of your program if someone were to only read this portion of your annual program review.

The Food Science and Technology degree and Certificate of Achievement program will provide students the opportunity to receive high quality workplace training and education in increasingly high demand, high paying job positions in Kern County and surrounding areas. Depending on the student's goals, they can obtain an Associate's Degree and/or a Certificate of Achievement in Food Science and

Technology. Students can choose to continue their education at a higher level or enter the workforce directly out of the program which supports the college's mission.

The Food Science and Technology program is being developed with the goal of offering the program to students starting summer 2019. Labor Market Data shows an increasing need in local industry for food scientists, technologist, and technicians. The Food Science and Technology Advisory Committee met June 6, 2018 and agreed upon a comprehensive program to meet the needs of industry and universities. Program and courses were submitted and approved by the colleges in the Central Mother Lode Region with 8 endorsement approval votes. Courses are currently being uploaded into eLumen and should be completed by October 1, 2018 for curriculum committee approval.

Increased student awareness and enrollment of the program has already been taking place with the Food Science and Technology faculty lead attending and continuing to attend outreach events to promote the program to the community, high schools, and current college students.

The most pressing need for the Food Science and Technology program is adequate laboratory space to ensure students receive the optimal learning environment and are able to complete the degree or certificate of achievement in a timely manner. Dedicated laboratory space will be vital to accommodate specific lab equipment and machinery required for the Food Science and Technology program and to ensure the safety of both students and equipment.

The addition of laboratory facilities will allow additional courses to be taught each semester, increasing the number of students entering and completing the program.

Additional faculty will be needed to replace the Food Science and Technology faculty lead's current position in AG Business to meet the needs of the BC and Dual enrollment campuses.

A part time lab technician position is recommended to assist with the set-up, take down, and monitoring of mandatory laboratory activities. The lab technician will also help maintain lab equipment, machinery, and facilities to ensure continued safety and use of the equipment and lab space.