

Bakersfield College 2018-2019 Program Review – Annual Update

Program Name: Mechanized Agriculture

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:

Instructional Programs only:

- A. List the degrees and Certificates of Achievement the program offers:
Heavy Equipment Technician Certificate of Achievement
- 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.
- C. If your program offers a local degree in addition to the ADT degree, please explain the rationale for offering both.

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:

Develop a Heavy Equipment Technician training program to meet industry needs.

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

Progress on goal achievement:

The Heavy Equipment Technician certificate of achievement is completed and available for students to declare as their major. We plan to increase the programs offerings this year by creating an associates degree as well as stackable job skills certificates within the existing program. This addition is to better meet the desires and needs of our students as well as local industry partners.

Status Update – Action Plan and any link to Resource Requests: Creating a certification program that trains students with the technical skills required to enter the workforce as an entry level equipment technician will meet the high demands of our local industry partners for mechanics.

2. Program Goal:

Work with Strong Workforce to ensure that student, employer, and industry partner needs are met.

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
Leadership and Engagement
Oversight and Accountability

Progress on goal achievement:

Working along side the strong workforce initiative the Bakersfield College Mechanized Agriculture program has received funding to create curriculum as well as purchase tools and equipment for the new Heavy Equipment Technician certificate. Through this process we have created focused industry partner group and advisory committee with the expertise to guide our programs direction to meet the needs of local and state industry. We have also examined labor market data and created a plan to help meet the needs in this growing area.

Status Update – Action Plan and link to Resource Requests:

Partnering with strong workforce will provide us with the support to facilitate the courses as well as bring new industry partners to Bakersfield College.

B. List new or revised goals (if applicable)

Program Goal:

Increase Student knowledge 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
Leadership and Engagement

Progress on goal achievement:

The Mechanized Agriculture Department has attended all BC campus outreach events including new student convocation, student involvement festival, and the Kern County Farm Bureau agriculture career exploration event. We also visited high schools in outlying rural communities and presented information about the new program to agriculture mechanics students

Status Update – Action Plan and link to Resource Requests:

Promote the program to students already attending Bakersfield College as well as those students planning on attending in the future.

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:

As a new program on the BC campus we were fortunate to see a large shift in mechanized agriculture enrollment this year. We went from enrollment number in the single digits to courses at capacity or close to.

2. How does your trend data (or other data your area collects) impact your decision making process for your program?

With the accelerated growth of the program we are now looking at how to offer more courses to interested students, both on the main campus as well as in rural areas. This prompts us to emphasize the need for additional faculty as well as increase lab space

3. Evidence of Department Dialog of data

- 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? No

5. Were there any changes to student success and retention rates for face-to-face and online courses? (instructional only) No

6. Equity gaps

- 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.

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.

Our department has taken an active role in Guided Pathways as last semester the mechanized agriculture program lead served as the meta-major faculty co-lead. Throughout the program students receive constant guidance to stay on track in their studies and finish the program on time. Pathway students are encouraged to take advantage of counseling, career advising, and other support services offered to students by Bakersfield College.

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

Currently the mechanized agriculture program has dual enrollment courses available at both the Wasco and Delano high school campuses, as well as the Kern High School District last semester. We encourage partnering high schools to offer our introductory courses to assist students in finishing the program earlier. We are also looking into additional staffing to offer courses at rural community campuses such as Arvin and Delano. We currently do not have an inmate education program but encourage recently incarcerated students to enroll.

Analysis of Received Resources from Previous Cycle

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

Facilities:

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: Last semester we received a space allocation of room 13 in the Agriculture building which was previously being used as storage. With the growth of the program and full implementation this year we have outgrown this space and have the need to expand.

Technology:

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.

Last semester our program received strong workforce funding which allowed for the purchase of tools, equipment, and training simulators for the heavy equipment tech program. These items will contribute to student success by providing students with a hands on learning atmosphere. This enables students to learn service, diagnostic, and repair techniques on current industry standard equipment.

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.

Last year was the creation year for BC's new Heavy Equipment Technician Certificate. This is the first program within Mechanized Agriculture created in collaboration with local industry designed to meet their needs for highly qualified equipment technicians. At the end of the 2017-18 academic year we had an average class size of 11 students with 7 who have identified their major as Heavy Equipment Technician and have completed the first half of the program. Starting this year we offered the Heavy Equipment Tech certificate of achievement for the first time in the catalog and running in its entirety. We currently have 4 courses offered with the smallest class 19 students and the largest 24 (3 students above capacity). This shows a strong interest from students for the program. Tools and equipment for Mechanized Agriculture have been funded through a Strong Workforce grant and this has helped us with lab activities and hands on student learning. The major need of the program currently is space. Last year we converted the agriculture 13 storage room into a lab/shop space, and we are currently sharing agriculture 12 shop with the construction program and California smog referee. With the full implementation of all courses for the Heavy Equipment Tech program this year we are concerned we will not have enough shop space to maximize student learning. The combined space in both Ag 12 and 13 is less than the learning space in any single automotive shop.

The addition of dedicated shop space for the Mechanized Agriculture program and Heavy Equipment Technician certificate of achievement is essential to the growth and success of the program. Currently the construction of a new shop facility for Mechanized Agriculture is slated to take place through campus reconstruction funded by measure j. The current plan is to construct the new shop in the open section of Renegade Park, next to Horticulture. The benefit to this

area is there is no structure currently there requiring demolition, and the plans call for a pre-engineered steel building to be erected for the new shop. This would allow for a quick and less costly delivery of the new facility. The departments concern is if the construction of the new lab facility is to wait until the existing building is demolished and construction on the Agriculture Science building is started, there will not be swing space available designed to house the types of lab courses offered within the Heavy Equipment Tech pathway. We would like to encourage a conversation as to the possibility of advancing the schedule for the construction of the Mechanized Agriculture lab facility in the construction master plan. This would meet the immediate needs of our program for space to offer classes that maximize student learning opportunities, as well as open up existing space in Agriculture 12 and 13 labs for other new and emerging programs on campus.