

Bakersfield College

Program Review – Annual Update

Program Name: Automotive Technology

Program Type: Instructional Student Affairs Administrative Service Other

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 Automotive Technology program at Bakersfield College provides training for automotive technicians, smog test technicians, engine repair technicians, engine machinists, transmissions repair technicians, alignments specialists, suspension specialists, brake systems specialists, tire service technicians, air conditioning technicians, electrical diagnostic specialists, onsite/field repair technicians, heavy duty equipment technicians, service writers and consultants, parts sales persons.

The Bakersfield College Automotive Department, as part of the California Community College system, provides CTE, transfer, and basic skills training to an average of 250 students each year. Our program successfully serves the CTE statewide goal for our discipline. In addition, we have participated in several of the strategic goals and initiatives of the college, including student success through our participation in the internship and job placement activities, and fiscal sustainability through our participation in the VTEA program and through donations the local new car dealership association and members of our advisory board. Our facilities and equipment are exemplary among similar programs in the State, and as such, they have contributed both to student success and a positive example of Bakersfield College's commitment to relevant technology and high wage, high-growth occupations within our service area.

Program Mission Statement: The Automotive Technology faculty strives to offer effective, up to date and student centered instruction, being sensitive to the diversity of our students, their educational needs, and their career goals. We provide relevant course and lab work geared toward day and night students seeking careers in automotive related fields, also meeting the needs of students seeking training for career advancement or skills updating. We use a multi-dimensional approach in preparing our students not only for their specific career goals, but also provide activities that assist them with meeting their personal, academic, and intellectual goals. Our faculty actively pursues professional development, program/facilities improvement, and college/community involvement, seeking partnerships and collective efforts.

Instructional Programs only:

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

Progress on 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.

Program Goal	Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)	Progress on goal achievement (choose one)	Status Update – Action Plan
<p>1. Coordinate with local industry through the work of advisory boards and other collaborative efforts.</p> <p>Continued goal from previous years. Changes in curriculum were either made or proposed in response to feedback by advisors. Evaluation of the change will take place over the next several years</p>	<p><input checked="" type="checkbox"/> 1: Student Learning <input checked="" type="checkbox"/> 2: Student Progression and Completion <input checked="" type="checkbox"/> 3: Facilities <input checked="" type="checkbox"/> 4: Oversight and Accountability <input checked="" type="checkbox"/> 5: Leadership and Engagement</p>	<p><input type="checkbox"/> Completed: _____ (Date) <input type="checkbox"/> Revised: _____ (Date) <input checked="" type="checkbox"/> Ongoing: _____ (Date)</p>	<p>The Automotive Department is in constant communication with our industry partners to assess how we can best prepare our students for employment in our industry. In addition to this, over the past year we have worked local employers to create job placement opportunities for our graduating students. This continuous collaborative effort insures that our department is always in line with the needs of our industry and providing the best possible education and opportunities to our students. Our advisory committee involvement continues to set the standard for other programs on campus.</p>
<p>2. Continue to address gaps in core indicators, particularly nontraditional</p>	<p><input checked="" type="checkbox"/> 1: Student Learning <input checked="" type="checkbox"/> 2: Student Progression and Completion <input type="checkbox"/> 3: Facilities <input type="checkbox"/> 4: Oversight and Accountability <input type="checkbox"/> 5: Leadership and Engagement</p>	<p><input type="checkbox"/> Completed: _____ (Date) <input type="checkbox"/> Revised: _____ (Date) <input checked="" type="checkbox"/> Ongoing: _____ (Date)</p>	<p>In our area, females are the non-traditional student. Through outreach events, such as host an all-female tour of the Bakersfield College EIT department for all local high schools,</p>

student (female) enrollment.			we have experience consistent improvement in both non-tradition enrollment and competition. While we are still below the state negotiated goal in this area, our program consistently out preforms the state wide average in both non-traditional participation and completion. Please see supporting documents attached.
3. Automotive Program/Curriculum Restructure	<input checked="" type="checkbox"/> 1: Student Learning <input checked="" type="checkbox"/> 2: Student Progression and Completion <input type="checkbox"/> 3: Facilities <input type="checkbox"/> 4: Oversight and Accountability <input type="checkbox"/> 5: Leadership and Engagement	<input checked="" type="checkbox"/> Completed: Summer 2017 (Date) <input type="checkbox"/> Revised: _____ (Date) <input type="checkbox"/> Ongoing: _____ (Date)	Over two years ago, the Automotive faculty began a complete restructure of all classes and curriculum to create a more fluid, direct path for students to follow in route to degree and certificate completion. The design has since become a model for other departments to consider in make dedicated pathways for their students.

B. List new or revised goals (if applicable)

New/Replacement Program Goal	Which institutional goals will be advanced upon completion of this goal? (select all that apply)	Status Update – Action Plan
	<input type="checkbox"/> 1: Student Learning <input type="checkbox"/> 2: Student Progression and Completion <input type="checkbox"/> 3: Facilities <input type="checkbox"/> 4: Oversight and Accountability <input type="checkbox"/> 5: Leadership and Engagement	

Best Practices:

Programs often do something particularly well; usually they have learned through assessment – sometimes trial and error – what solves a problem or makes their programs work so well. These are often called Best Practices and can help others. Please share the practices your program has found to be effective.

Collaborative Teaching

Over the past few years the culture of the Automotive Program has shifted to embrace a collaborative effort in educating our students. In years past we often worked independently in our own areas of specialty toward common goals. This sometimes resulted in mixed results. Through weekly meetings and discussions amongst our department we have consciously made the decision to work more cooperatively and transparently with each other. This has led to many positive improvements within our department resulting in mutual benefits to the faculty and the students. As an example, the faculty recognized the logistical and financial burden placed on our students by using different texts and resources for every automotive course. The Automotive Faculty searched and found a single text book and online teaching resource that could be adopted by the majority of the instructors. The result has been more consistency of information being conveyed to the students and reduced cost to students. Another example is we have begun the process of cross training each other in other classes that have been traditionally taught by a single instructor. We have collaborated on efforts to support student internships, develop new curriculum and pursue grant funding. We are now much more supportive of sharing lab resources and equipment amongst each other which has resulted in reduced duplication and a more effective use of limited funding. We are all motivated to continue this effort as we work toward the improving our program.

New Automotive Program Curriculum

The Automotive Department has spent over a year developing new curriculum that will implement a progressive student centered learning process. The new curriculum has been designed to provide students with up to date training and the opportunity to obtain Certificates of Achievement in the same areas as the Automotive Industry Automotive Service Excellence (ASE) certifications. We have added 10 new certificates of achievement and 10 new classes. Our progressive approach will include well defined, guided pathways and accelerated classes to improve the flow of students through the program and allow for more timely completion of specialized training for each student. Almost all of our classes now will be offered as accelerated or short term 8 week classes. Research has shown that accelerated classes improve student success and persistence. We have also intentionally aligned our courses to other schools that offer Bachelorette Degrees to allow students a streamlined progression to higher education. This will lead to the need to offer more sections which will lead to the need for more instructional space.(a need documented in the Facilities category above) Curriculum has been technically focused and aligned throughout the courses to eliminate duplication of instruction. The majority of the courses will be using the same book, as an instructional resource, reducing costs for students while they are in our Automotive Program. We are very excited to see these changes implemented in the fall of 2017. We know that this will have a powerful and positive impact for our students, our program, and the automotive industry in Bakersfield and the surrounding areas. We are confident that this will prove to be a long term solution that will allow growth to our automotive program, increasing persistence and completion rates, improving core indicators, and increasing degrees and certificates.

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).

1. Please report on any unexpected changes or challenges that your program encountered this cycle:
 - o The drastic reduction in available VTEA funds has dramatically affected the ability of the Automotive Program to add additional/new equipment and send the four (4) Automotive Professors to mandated training. We are also expected to hold biannual advisory meetings and host outreach events, all on an annual budget of \$11,000. In years past our program had received well over \$100,000 from the over \$600,000 that Bakersfield College receives every year. We are convinced this drastic reduction in funding is having a dramatically negative impact on the instruction of our students. The Automotive staff is aggressively searching for other funding sources.
 - o The addition of the Strong Workforce Grant has helped bring back to Automotive much needed funding for the necessary teaching resources our discipline requires.
2. How does your trend data impact your decision making process for your program?

Our industry requires the use of critical thinking and decision making based on interpretation of data/results of diagnostic procedures. The Automotive faculty use this same approach to interpreting the outcomes of every decision we make to best strategize the most effective approach to education our students and preparing them for a successful career in the Automotive Industry.
3. Were there any changes to student success and retention for face-to-face, as well as online/distance courses?
 - o Continued improvement in both areas. Automotive continues to out preform the college wide statistics.
4. Were there any changes to student demographics (age, gender, or ethnicity) for the past cycle?
 - No significant changes have occurred with regard to the Automotive students demographics. However, one notable change over the past 5 years have been a substantial increase of students that have completed matriculation and a completed “flip-flop” of students that have completed their Ed Plan. The success and completion rates for our program during this same time continue to improve so we do not believe any changes are necessary at this time.

Resource Request and Analysis:

Resource Request		If Fulfilled, Discuss How Previous Year’s Requests Impact Program Effectiveness?
Positions: <i>Discuss the impact new and/or replacement faculty and/or staff had</i>	<input type="checkbox"/> 1: Classified Staff <input checked="" type="checkbox"/> 2: Faculty	The new Automotive curriculum model, which launched in Fall 2017, will add a new Diesel class that our advisory committee has be requesting for many years. The new model will also streamline the pathways for student success and make it possible for more students to be in the pipeline than ever before.

<p><i>on your program's effectiveness.</i></p>		<p>The addition of the new class, additional head count and threat of a bottle neck in the program, combined with the fact that current head count requires the use of an adjunct and that all of the 4 current automotive faculty have to regularly teach overload, deems this new automotive faculty position necessary to meet the demands of our students and industry.</p>
<p>Professional Development: <i>Describe briefly, the effectiveness of the professional development your program has been engaged in (either providing or attending) during the last cycle</i></p>	<p><input type="checkbox"/> 1: Provided Professional Development <input checked="" type="checkbox"/> 2: Attended Professional Development</p>	<p>Mr. Posey earned ASE certificates in 4 areas he had not previously been certified in and has completed a new Master Engine Machinist Certificate from the Automotive Engine Rebuilders Association. Mr. Posey each also attended the SEMA Conference which includes training in his areas of specialty, Engine machining/repair. Mr. Flint attended the California Auto Teachers conference, a Hybrid Technology seminar at the CARQUEST Technical Institute, competed annual BAR updates required by the state of California, recertified in six different ASE areas and earned three new ASE certificates that he had not previously held. Mr. Haney attended the California Auto Teachers conference, attended seminars at both the CARQUEST Technical Institute and Bosch's training facility as well as recertified in three ASE areas The professional development received by each instructor keeps us abreast of current industry issues and enables us to more effectively train our students for current industry working conditions. It also provides invaluable networking opportunities which allow us to be better connected to and supported by our industry partners.</p>
<p>Facilities: <i>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.</i></p>	<p><input type="checkbox"/> 1: Space Allocation <input type="checkbox"/> 2: Renovation <input type="checkbox"/> 3: Furniture <input type="checkbox"/> 4: Other <input type="checkbox"/> 5: Beyond Routine Maintenance</p>	

<p>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?</p>	<p><input checked="" type="checkbox"/> 1: Replacement Technology <input checked="" type="checkbox"/> 2: New Technology <input type="checkbox"/> 3: Software <input type="checkbox"/> 4: Other _____</p>	<p>New computers and TV’s were purchased with Strong Workforce funding over the summer of 2017. The impact is expected to be substantial but has not yet been realized because of delays in the installation and programing.</p>
Resource Request		Discuss How Effective Request is for Student Success?
<p>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.</p>	<p><input type="checkbox"/> 1: Replacement <input checked="" type="checkbox"/> 2: New <input type="checkbox"/> 3: Other _____</p>	<p>New diagnostic equipment has made our instruction to students more relevant to the constantly changing Automotive industry. A new CNC Cylinder Hone has alleviated a bottleneck in the lab work for Mr. Posey’s students. The new hone also exposes the students to technology and methods not previously taught.</p>
<p>Budget: Explain how your budget justifications will contribute to increased student success for your program. (Fiscal requests will be submitted by the faculty chair and/or area administrator.)</p>		<p>Current technology resources are outdated in many ways and fall below the needs for instruction for today’s students. Technology budget request will improve student success by empowering the students to work more efficiently and allow faculty to convey information in a visual, graphic format that today’s students are accustomed to.</p> <p>In addition, the Automotive faculty would like to have support developing a website specifically for the Automotive Department. We have learned from polling our current students that the overwhelming majority of them learn of our classes from the internet. A better presence on the internet would draw a higher quality incoming student as well as serve current and former students with features such as a job placement board, networking opportunities and allow faculty better follow-up with former students’ success.</p>

Conclusions & Snapshot:

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.

Automotive Internships

During the summer of 2016, with the help and organization of Stephanie Baltazar, the Automotive faculty launched an internship program that placed 8 students in 5 different shops and dealerships. During the summer of 2017 the Automotive internship program placed twice as many students. During the internship the students were able to apply the skills they had obtained in the BC Automotive program in a "real life" working environment working alongside seasoned professionals in our industry. The students gain confidence in their skills, valuable work experience and professional trade connections. With these experiences the students are able to build their resume with contacts, letters of recommendation and be able to show on the job work experience. At the conclusion of the program the faculty received accolades from the employers for preparing the students so well and raving reviews of the students' performance on the job. Almost all of the students were given job offers at the conclusion of the internship. It was considered a huge success by the participating employers, the BC Automotive faculty and students. The internship program is scheduled to run again in the summer of 2018 and possible during the spring as well

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The Automotive Department is operating at maximum capacity with the current faculty. While there is huge potential for growth in the program with new subject offerings, such as diesel and hybrid technology, the addition of new faculty positions will be necessary to accommodate this. Instead the focus of the current faculty is to maintain success and retention rates which are higher than the college wide statistic. Students continue to come to our classes under-prepared academically and challenged by our rigorous coursework in this program. We need to adapt our teaching strategies and add teaching resources, such as informational technology, to promote continued growth in retention and success rates of our students.

Although growth of sections has been limited in the recent past due to budget cuts, we anticipate growth in sections and FTES from this year on. Course sections have typically been full and waitlisted in our program.

It will continue to be a challenge to meet the expectations of industry (greater breadth of knowledge required for the average technical employee) while meeting the expectations of our College program (productivity, number of sections allowed and scheduling issues) with the current limitations of our facilities and upcoming faculty retirements. However, The Bakersfield College Automotive Program is prepared with a new curricular structure and instructional strategies to overcome these challenges and grow the program to a level not yet seen before. Facilities, Technology, Equipment, Faculty and Administration support will be necessary, but with this support we can raise our program to a level to be revered at the state level, intended to be an example for other college Automotive programs.