**Bakersfield College**

**Program Review – Annual Update**

**I. Program Information:**

Program Name: Automotive Technology

Program Type: X Instructional  Non-Instructional

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.

Program Description: 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.

Degree – Associates Degree in Industrial Technology, Automotive Option

Certificates of Achievement

Automotive Brakes and Wheel Alignment

Automotive Power Trains

Automotive Engine Overhaul

Automotive Tune-up and Emission System

Job Skills Certificates

Automotive Heating, Ventilation & Air Conditioning

Automotive Management

Basic Clean Air Car Course

Advanced Clean Air Car Course

**II. Program Assessment (focus on most recent year):**

1. How did your outcomes assessment results inform your program planning?

In addition to classroom assignments, students complete many Lab Tasks through the course of the semester that require the student to perform certain tasks which allow the professor to assess the understanding & attainment of the information by each student. If the student does not exhibit proficiency in each task, the professor can quickly and accurately analyze the situation which allows them to guide the student until proficiency is achieved. Results from the overall class proficiency are analyzed at the conclusion of each task sheet to determine if the success rate is acceptable and adjustments are implemented immediately if necessary. Our Advisory Committee consistently confirms that we are keeping up with the changing technical demands of our local employers.

1. How did your outcomes assessment results inform your resource requests?

Each professor in Automotive Technology has implemented information technology resources into the

learning environment. In addition to using the most current tooling and equipment form our industry, we

have utilized online training, computer simulation and animation to convey the subject matter in a format

that is embraced by our students. We have also put great effort into streamlining class offerings and meeting with our students one on one to help them achieve their goals more quickly. This has led to improving the pathway to the degree, certificates and ultimately employment in our industry. All of this is a result of constant communication with and evaluation of our students.

1. Instructional Programs only**:** How do course level student learning outcomes align with program learning outcomes?

While the Program Learning Outcomes encompass the entire Automotive Department, the Course learning outcomes are more specific for each area in our industry. You could say the CLO’s are an extension of the PLO’s

1. How do the program learning outcomes align with Institutional Learning Outcomes?

The Automotive Program learning outcomes align very closely with “Pursue knowledge and evaluate its consequences” and “Demonstrate knowledge and abilities in a chosen area of study” from the Institutional Learning Outcomes. Our students are required to think critically, abstractly, and logically to evaluate and solve problems daily. They continuously integrate new information to formulate principles and theories and display openness to different opinions. They must share the desire for intellectual creativity and acquisition of knowledge to achieve each assigned task. Through the use of lab task sheets they demonstrate an understanding of resources and procedures of a field and the ability to use them as well as demonstrate ability to use current technology to acquire, organize, and analyze information appropriately.

1. Describe *any significant changes* in your program’s strengths since last year.

Enrollment continues to be very strong. The addition of prerequisites for some of our upper level classes has resulted in better quality of incoming students as well as making the order in which the students take the classes more efficient. Degree & Certificate issuance has constantly grown over the past four years. We are proud to note that 4 Associates Degrees were issued by the Automotive Department. Also during the 2013-14 year 49 Automotive Certificates were issued. But most encouraging is the fact that roughly 85% of our students are working in some sector of the Automotive industry, some while continuing their education.

1. Describe *any significant changes* in your program’s weaknesses since last year.

In our area, the non-traditional student is female. In spite of outreach events, such as hosting an all female tour of the Bakersfield College EIT department for all local high schools and open house events for our feeder schools, we experienced a slight decline in female enrollment. Over the past 5 years we have seen consistent growth in enrollment for our non-traditional students. As of last year, female enrollment has dipped to 10%. That is 2% less than the previous year but is still 4% higher than 5 years ago.

1. If applicable, describe any unplanned events that affected your program.

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 $4,000. In years past we had received well over $100,000 from the nearly $600,000 that Bakersfield College receives every year.

**III. Resource Analysis:**

1. Human Resources
2. If you are requesting any additional positions, explain briefly how the additional positions will contribute to increased student success.

Faculty Request Form attached

1. Professional Development (Professional Development form)
2. Describe briefly the effectiveness of the professional development your program has been engaged with (either providing or attending) during the last cycle, focusing on how it contributed to student success.

Mr. Flint pursued and obtained BAR certification to become a BAR certified instructor. This state certification has allowed our automotive program to teach level 1 and level 2 smog inspector training classes. Passing scores for level 1 and level 2 training courses enable students to take the state smog Inspector License examination. Mr. Canaday attended the NACAT conference in North Carolina for training in Drivability Performance as well as grant funding and administration areas. Dan Johnson & Vic Posey each attended conferences in Las Vegas in their areas of specialty, Transmissions and Engine machining/repair. 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.

1. Provide rationale for future professional development opportunities and contributions that your program can make.

Bakersfield College Automotive Department is a NACAT certified training facility which makes us eligible for support directly from all vehicle manufacturers. NACAT requires that all instructors at NACAT certified schools attend a minimum of 20 hours of professional training each year. 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.

1. Facilities (M&O requests can be submitted by completing the [M&O request form](https://committees.kccd.edu/sites/committees.kccd.edu/files/Copy%20of%2012%20M%26O%20Needs%20Workbook%2012-13%20APR.xlsx).)

Has your area received any facilities maintenance, repair or updating in this cycle? No requests from last year have been completed.

1. If yes, how has the outcome contributed to student success?
2. If no, how will your facilities request contribute to student success? The requests range from safety concerns to the preservation of current instructional resources. A safe working environment as well as operational equipment is a must to effectively instruct our students. Please see attached form.
3. Technology (Technology requests can be made by filling out the [ISIT Request form](http://www.bakersfieldcollege.edu/irp/Annual%20Program%20Reviews/2012-13/13%20ISIT%20Priority%20Workbook%2012-13.xlsx).)
4. Has your program received new or repurposed technology in this cycle? No
   1. If yes, how has this technology contributed to student success?
   2. If no, how will your new or repurposed technology request contribute to student success?

Current technology resources are outdated in many ways and fall below the needs for instruction for today’s students. It 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 accustom to.

1. Do you need new or repurposed classroom technology to support student success and/or new office technology to support faculty/staff success? Justify your request.

In addition to the requests noted in #1 of this category, 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.

1. Budget (Changes to the budget allocation can be requested using the [Budget Change Request Form](http://committees.kccd.edu/bc/committee/programreview)).

If you are requesting any additional funding, explain briefly how it will contribute to increased student success.

**IV. Trend Data Analysis:**

Highlight *any significant changes* in the following metrics and discuss what such changes mean to your program.

1. Changes in student demographics (gender, age and ethnicity). No significant changes.
2. Changes in enrollment (headcount, sections, course enrollment and productivity). Aside from adding an additional section of Introduction to Automotive Technology to accommodate incoming students that are not receiving training at the high school level, there were no significant changes.
3. Success and retention for face-to-face, as well as online/distance courses. The Automotive student retention rate is 88% and success rate is 73%, both higher than the college wide averages.
4. Other program-specific data that reflects significant changes *(please specify or attach).*

Retention and Success rates of Automotive students are higher than college wide statistics at Bakersfield College in nearly every caption, including our non-traditional student, the female.

**V. Progress on Program Goals:**

1. 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.

|  |  |  |  |
| --- | --- | --- | --- |
| **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)** | **Comments**  **(if applicable)** |
| 1. Continue to coordinate with local industry through the work of advisory boards and other collaborative efforts.  [Continued goal from last year. 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 | 1: Student Success  2: Communication  3: Facilities & Infrastructure  4: Oversight & Accountability  5: Integration  6: Professional Development | Completed:  \_\_\_\_\_\_\_\_\_\_ (Date)  Revised: \_\_\_\_\_\_\_\_\_\_ (Date)  Ongoing: \_\_\_\_\_\_\_\_\_\_ (Date) | 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 with the Bakersfield New Car Dealership Association to create a scholarship and job placement opportunity 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. |

|  |  |  |  |
| --- | --- | --- | --- |
| **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)** | **Comments**  **(if applicable)** |
| 1. Continue to address gaps in core indicators. [This is continued from last year – especially in terms of nontraditional student (female) enrollment. | 1: Student Success  2: Communication  3: Facilities & Infrastructure  4: Oversight & Accountability  5: Integration  6: Professional Development | Completed:  \_\_\_\_\_\_\_\_\_\_ (Date)  Revised: \_\_\_\_\_\_\_\_\_\_ (Date)  Ongoing: \_\_\_\_\_\_\_\_\_\_ (Date) | In our area, the non-traditional student is the female. Through outreach events, such as host an all female tour of the Bakersfield College EIT department for all local high schools, we have seen consistent growth in enrollment for our non-traditional students. As of last year, female enrollment is at 10%. That’s up by 4% over that last 4 years. |

1. New or revised goals (if applicable)

|  |  |  |
| --- | --- | --- |
| **New/Replacement Program Goal** | **Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)** | **Anticipated Results** |
| Add diesel and/or hybrid classes to support industry demand for technicians | 1: Student Success  2: Communication  3: Facilities & Infrastructure  4: Oversight & Accountability  5: Integration  6: Professional Development | While our advisory committee feels strongly that these classes need to be added, the current financial trends don’t indicate support for this from the district. |

**VI. Curricular Review (Instructional Programs only):**

1. Review of Course Information:
   * Column A list all of the courses associated with the degree.
   * Column B list the Fall term the review process will be started for ongoing compliance.
   * Column C list the compliance due date.
   * Column D list any changes to courses with regard to distance education.
   * Column E list corresponding C-ID descriptors if available. <http://www.c-id.net/>

**\*\*Dates listed should reflect a five year cycle allowing for one year of review**

**to maintain ongoing compliance.\*\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A. Course** | **B. Fall Term Review will be Submitted** | **C. Compliance Due Date** | **D. Distance Education Changes** | **E. C-ID Descriptors Available** |
| Auto B1ab | 2018 | 2019 |  |  |
| Auto B2a | 2017 | 2018 |  |  |
| Auto B2b | 2017 | 2018 |  |  |
| Auto B3 | 2016 | 2017 |  |  |
| Auto B14 | 2016 | 2017 |  |  |
| Auto B15 | 2016 | 2017 |  |  |
| Auto B59 | 2015 | 2016 |  |  |
| Auto B61 | 2016 | 2017 |  |  |
| Auto B75a | 2016 | 2017 |  |  |
| Auto B75b | 2016 | 2017 |  |  |
| Auto B75c | 2016 | 2017 |  |  |
| Auto B75d | 2016 | 2017 |  |  |
| Auto B106 | 2018 | 2019 |  |  |
| Auto B112 | 2017 | 2018 |  |  |

1. Review of Program Information:

Is the program information housed in CurricUNET accurate? (Considerations: changes in course(s) names and/or suffixes as well as additions/deletions of courses). If not, then a program modification needs to be started in CurricUNET to reflect the necessary changes. Explain the requested changes below.

The course description for B61 should change from Basic and Enhanced Area Clean Air Car Course to Level 1 and Level 2 Smog inspector training.

Is the program and course listing information in the current catalog accurate? If not, list the requested

changes below. Catalog information should reflect what is in CurricUNET.

The course description for B61 should change from Basic and Enhanced Area Clean Air Car Course to Level 1 and Level 2 Smog inspector training.

1. Student Education Plan (SEP) Pathway(s) uploaded to “Attached Files” in CurricUNET.

If applicable, SEP Pathway with CSU Breadth indicated? Yes or No

If applicable, SEP Pathway with IGETC indicated? Yes or No

If applicable, SEP Pathway with BC General Education indicated? Yes or No

**\*\*Please ensure that the information housed in CurricUNET and the current catalog match. \*\***

1. If applicable, provide a description of the program’s future adoption of C-ID descriptors and Associate Degree for Transfer (ADT) or Model Curricula.

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**VII. Conclusions and Findings:**

Present any conclusions and findings about the program.

1. Streamlining the Automotive classes available to our students will continue to increase persistence and completion rates.

2. 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.

3. 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.

4. 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) and the limitations of our facilities for expansion.

5. Employers are more willing now to offer internships, donations of equipment and money, expertise, and entry-level employment. This is a direct result of the efforts we have made in connecting our industry sectors with our College.

6. The Automotive Department is operating at maximum capacity with the current faculty. While there is a potential for growth in the program with new subject offerings, such as diesel and hybrid technology, the addition of new faculty positions would be necessary to accommodate this. Instead the focus of the current faculty is to maintain success and retention rates higher than the college wide statistic.

**VIII. Attachments (place a checkmark beside the forms listed below that are attached):**

[Faculty Request Form](http://committees.kccd.edu/bc/committee/programreview)  [Classified Request Form](http://committees.kccd.edu/bc/committee/programreview)  [Budget Change Request Form](http://committees.kccd.edu/bc/committee/programreview)

Professional Development  [ISIT Form](http://committees.kccd.edu/bc/committee/programreview)  [M & O Form](http://committees.kccd.edu/bc/committee/programreview)

[Best Practices Form](http://committees.kccd.edu/bc/committee/programreview) **(Required)**  Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IX. Certificates of Achievement:**

Programs with stackable certificates fill out the following form.

Stand alone certificates fill out the entire Annual Update.

**Certificate Form**

**Annual Update 2014-15**

**Name of Program:** \_\_\_Automotive Technology\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Certificate Name** | **JSC** | **CA** | **Is the certificate stackable?** | **Is the certificate a**  **stand alone program?** |
| Auto Brake and Wheel Alignment |  | X |  |  |
| Auto Engine Overhaul |  | X |  |  |
| Auto Power Train |  | X |  |  |
| Auto Tune Up |  | X |  |  |
| Automotive Management | X |  |  |  |
| Automotive HVAC | X |  |  |  |
| Basic and Advanced Clean Air Car | X |  |  |  |

Please discuss the following questions regarding all area Certificates of Achievement (CA):

1. List certificates that are proposed for *addition*.
2. List certificates that are proposed for *deletion*.
3. For this CA, what are the SOC codes (Occupational Titles and codes) that students who complete the CA will be able to obtain entry-level employment in, and what are the projected annual openings and median salary for each occupational title? You can use your latest Program Review data for your response.
4. For this CA, what process was followed to ensure the required and possible elective courses were adequate for entry level employment (such as advisory committee input, surveys, industry feedback, licensing or accreditation agencies)? How often do/will you re-examine the effectiveness of certificate requirements?
5. What is your annual completion target (number of certificates awarded) for this CA? What was the number of awards in this CA for each of the past three years? Based on your results, what changes could you make in your program to meet or continue to exceed your target (such as course content, scheduling/sequence, outreach, instructional strategies)?
6. Based on what you know about your area, what emerging/potential institutional factors (internal) and industry factors (external) will impact this certificate? How are you planning to incorporate these factors in your planning and evaluation of this certificate?

**Automotive Engine Overhaul CA**

SOC Codes-

49-3023 Automotive Service Technicians and Mechanics

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

49-3041 Farm Equipment Mechanics and Service Technicians

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

49-3093 Tire Repairers and Changers

Projected annual openings in our area – 166

Median annual salary in our area – $40,000

Input from our advisory committee, follow-up surveys with former students, industry feedback and information from our industry affiliations, such as ASE, NACAT, AERA and PER is reviewed biannually to determine the effectiveness of the certificates and adjustments are made accordingly.

The annual completion target for this certificate is – 30

The average numbers of certificates awarded over the last three years – 65

Based on these goals and results, no adjustments are needed at this time.

**Automotive Brakes and Wheel Alignment CA**

SOC Codes-

49-3023 Automotive Service Technicians and Mechanics

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

49-3041 Farm Equipment Mechanics and Service Technicians

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

49-3093 Tire Repairers and Changers

Projected annual openings in our area – 166

Median annual salary in our area – $40,000

Input from our advisory committee, follow-up surveys with former students, industry feedback and information from our industry affiliations, such as ASE, NACAT, AERA and PER is reviewed biannually to determine the effectiveness of the certificates and adjustments are made accordingly.

The annual completion target for this certificate is – 14

The average numbers of certificates awarded over the last three years – 17

Based on these goals and results, no adjustments are needed at this time.

**Automotive Tune-up and Emissions Systems CA**

SOC Codes-

49-3023 Automotive Service Technicians and Mechanics

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

49-3041 Farm Equipment Mechanics and Service Technicians

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

49-3093 Tire Repairers and Changers

Projected annual openings in our area – 166

Median annual salary in our area – $40,000

Input from our advisory committee, follow-up surveys with former students, industry feedback and information from our industry affiliations, such as ASE, NACAT, AERA and PER is reviewed biannually to determine the effectiveness of the certificates and adjustments are made accordingly.

The annual completion target for this certificate is – 18

The average numbers of certificates awarded over the last three years – 31

Based on these goals and results, no adjustments are needed at this time.

**Automotive Powertrains CA**

SOC Codes-

49-3023 Automotive Service Technicians and Mechanics

49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

49-3041 Farm Equipment Mechanics and Service Technicians

49-3042 Mobile Heavy Equipment Mechanics, Except Engines

49-3093 Tire Repairers and Changers

Projected annual openings in our area – 166

Median annual salary in our area – $40,000

Input from our advisory committee, follow-up surveys with former students, industry feedback and information from our industry affiliations, such as ASE, NACAT, AERA and PER is reviewed biannually to determine the effectiveness of the certificates and adjustments are made accordingly.

The annual completion target for this certificate is – 5

The average numbers of certificates awarded over the last three years – 7

Based on these goals and results, no adjustments are needed at this time.