



C U Y A M A C A
• C O L L E G E •

Comprehensive Program Review Report

Academic - Automotive Technology (AUTO) - (CE)

Program Goals

Modernize Department Facilities for Open Lab - Student Validation and Engagement (Goal 1)

Program Goal: Modernize Department Facilities for Open Lab - Student Validation and Engagement

Goal Status: Active

Summary of Progress or Results

Summary Date: 12/12/2024

Summary of Progress or Results: Still in process.

Reporting Period: 2024 - 2025

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position, Facilities renovation, Supplies, equipment, and/or furniture, New classified position

Action steps for this academic year.:

Meet with curriculum committee for recommendations on an open lab course for students to come in by appointment that can be retaken. Need more another fulltime faculty to help with the curriculum and teaching load. A facility renovation and in-ground lifts would allow more students to be able to take the course. Another lab assistant will benefit the students and the department.

Maximize General Motors ASEP (Goal 2)

Program Goal: Maximize General Motors ASEP

Goal Status: Active

Summary of Progress or Results

Summary Date: 09/19/2024

Summary of Progress or Results: In progress.

Reporting Period: 2024 - 2025

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

We are in the process of hiring a new faculty that will manage the GM program. We also have meetings set up with General Motors and our faculty and administration.

Hire a new fulltime faculty. We should have 4 fulltime faculty. We have been operating with 2 fulltime faculty. This is the main equity gap. It is impossible to manage a GM, Ford, ASCCA, General Program, and Electronics Technology with only 2 or 3 fulltime faculty. We are lacking the historical human resources in the department to provide our students with the best possible learning environment.

2024 Update:

Program Goals

Summary of Progress or Results

We hired a fulltime faculty member to run the GM ASEP program. His goal is to get 15-20 GM students by the end of next year. Faculty has been getting his GM training.

Curriculum Development – Create/update Canvas containers that can be used be any instructor... (Goal 3)

Program Goal: Curriculum Development – Create/update Canvas containers that can be used be any instructor...

Goal Status: Active

Summary of Progress or Results

Summary Date: 09/19/2024

Summary of Progress or Results: In progress.

Reporting Period: 2024 - 2025

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

Curriculum Development – Create/update Canvas containers that can be used be any instructor for the AUTO-263 Advanced Electronics Group, AUTO-264 Hybrid and Electric Vehicle Group, AUTO-283 Group Advanced Engine Performance, AUTO-099 Intro to Auto Tech, and AUTO-100L Intro to Auto Tech Lab. Create a MLR certificate. All of the ASSESSMENT COURSES and the structure of how they are scheduled and assigned needs to be evaluated. The goal of the assessment courses was to establish more centralized SLO evaluation, a test center mimicking standardized testing. The chances of criterion-based assessment increase, as well as preparation for National ASE assessment and competency. It is concerning that we have not discussed how to become more effective. Also the curriculum design prevents reoccurring student costs and academic probation. Stipends to pay classified staff and faculty to build courses. \$2,000 per course with 11 courses to created.

Update 2024:

Faculty created Canvas containers for AUTO-263 Advanced Electronics Group and AUTO-264 Hybrid and Electric Vehicle Group. Other courses still in progress. Need new faculty to be able to help with curriculmn development and improvements.

Complete Academic Career Pathways for publishing and Department Website update. (Goal 4)

Program Goal: Complete Academic Career Pathways for publishing and Department Website update.

Goal Status: Active

Summary of Progress or Results

Summary Date: 09/19/2024

Summary of Progress or Results: In progress

Reporting Period: 2024 - 2025

Program Goals

Summary of Progress or Results

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

2024 Fall submit updated ACP forms to Faculty and update website. Complete by Fall 24.

2024 Update:

Updated main ACP pathway for the general Automotive Technology degree and certificate. Still need to update the remaining ones. Need another fulltime faculty to help with load.

Ford, General Motors, and General Program ASE Department Program Certifications... (Goal 5)

Program Goal: Ford, General Motors, and General Program ASE Department Program Certifications...

Goal Status: Active

Summary of Progress or Results

Summary Date: 09/19/2024

Summary of Progress or Results: In progress

Reporting Period: 2024 - 2025

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position

Action steps for this academic year.:

Ford, General Motors, and General Program ASE Department Program Certifications. Each specialized program is required to have ASE certification. All three major programs need certification or recertification. This is a large compliance project, outside specialist visit our programs for accreditation

1. Contact ASE recertification team work with lab assistants.
2. Compile documents demonstrating student compliance examples.
3. Schedule site visits.
4. Each certification costs \$800. X 3 \$2400 This should take place in the 2024 year.

We will need to pay for the 5 year certification fees and consulting fees (\$2400 + \$5000)

2024 Update:

Still in progress. Need to complete in 2025. Need another fulltime faculty to help with department duties.

Inventory Control System for tools, vehicles, supplies, equipment, and human resources. (Goal 6)

Program Goal: Inventory Control System for tools, vehicles, supplies, equipment, and human resources.

Goal Status: Active

Program Goals

Summary of Progress or Results

Summary Date: 09/19/2024

Summary of Progress or Results: In progress

Reporting Period: 2024 - 2025

Status: In Progress - will carry forward into next year

What resources, if any, are needed to achieve this goal? (Select all that apply): New faculty position, New classified position

Action steps for this academic year.:

We have noticed since the tools have been moved to the laboratory, it has been difficult to inventory them. We have suggested cameras in previous program reviews, but have been restrained by the administration, even when theft has occurred after hours. Law enforcement has recommended this. We need a way to document and monitor our laboratory for safety concerns and inventory.

Have lab assistants and faculty discuss a solution during department meetings. Report the plan to admin.

2024 Update:

Still in progress. Need more support. A new faculty and lab assistant would allow for faster progress.

Program Overview and Update

Lead Author

Ignacio Castaneda and Brad McCombs

Collaborator(s)

Howard Wagner and Russell Petersen

Initial Collaboration Date with Program Team

10/23/2024

Dean/Manager(s)

George Dowden

Program Reflection and Description

Provide your program's mission statement. If your program does not have a mission statement, what is your timeline for creating a mission statement?

The mission of the Cuyamaca College Automotive Department is to serve a diverse community of students who seek to benefit from the departments specialized programs and services.

In order to fulfill this commitment to student learning, success and equity, the department provides:

- Instructional programs that meet student needs for transfer education, career technical education, general education, and fundamental skills course
- Specialized programs that implement work-based learning, job placements, and career enhancement development

To facilitate this mission, the Cuyamaca College Automotive Department provides a comprehensive range of services including: outreach, accessibility, student success and equity implementation, academic learning resources, career development programs, and manufacturers level training. In support of this mission, the Department offers multiple courses, degrees, and certificates of achievement, which implements the foundation of the Colleges strategic plan.

Is the program description in the current college catalog up to date and accurate?

No

If you answered no above, what steps will you take to revise the college catalog description?

Advise Dean permissions to update catalog.

Describe how your program advances the College's vision of equity, excellence, and social justice through education. How does the program reflect the College's mission and values?

The program serves a diverse student population including DSP&S and strives to achieve job placements and education for all students in the program. The diversity outcomes can be found in previous program review data. The graduation rates, job placements, class enrollments, and certificate achievements have increased dramatically in the recent year. This was affected by the college pathways, and specifically massive curriculum revisions, and by hiring of new full-time faculty implementing the college vision of diversity.

Curriculum Review and Development

Have all of your active course outlines been reviewed within the last five years?

Yes

Comprehensive Program Review

Please list any planned changes from the current semester forward for curriculum (courses, degrees, and/or certificates) and the rationale for those changes.

We are creating short term certificates that are 18 units which will increase completions. This will be accomplished by removing the specialized work experience requirements from the current certificates, and creating additional student success and equity by recognizing the first-year requirements. This will act as a stepping stone marker for graduations. This will increase engagement, recognition, and retention.

For Transfer Programs: How is your program meeting the transfer needs of students, and/or articulation with four-year institutions? If not a transfer program, please enter N/A

We teach one transfer course which has excellent enrollments and have added Electronics 110 to our Electronics and Electric Vehicle Specialist.

We know that our students need technical writing skills and we know that we are most likely most qualified to offer technical writing through our department and seek to work with other faculty to help us achieve future transfer classes. This may also apply to math and sciences, because we implement and apply these skills directly to students as part of our applied science degrees:

For example:

- Applied hertz
- frequencies
- thermal dynamics,
- electronics
- atomic structures
- magnetism
- battery chemistry
- hydraulics

We teach the math equations and demonstrate them in the real world. Why can't students achieve recognition and credit for transfer. Why is our program separated from transfer program rather than combined?

For Career Education Programs: How is your program meeting labor market demand and preparing students to enter the workforce? If not a career education program, please enter N/A

Our program hosts consistent and required advisory boards where we talk to industry about their needs currently and in the future. These are documented meetings. We have at least two per year, not including Ford and General Motors manufacturer specific advisory meetings.

Student Learning Outcomes (SLO) Assessment

What do your SLO data suggest about student experiences, successes, and challenges in your service area?

We need to create an easier way of measuring SLO success, by creating Canvas surveys in our courses specifically meant to measure the student learning outcomes.

Share an example of meaningful, innovative, equitable, and/or student-centered SLO assessment happening in your program.

We have active assignments that allow a student to perform a process through video recording, hands-on assessments, written assessments. We allow for students to take the same assessment multiple times throughout the semester to help attain learning competencies. Our innovative curriculum design allows students to succeed in sections of a course without failing the entire course. The course has been separated into lecture, lab and assessment.

Comprehensive Program Review

Discuss how your SLO data are being used for course and/or program improvements for student retention, success, and/or goal achievement.

We are using competencies surveys which allow the instructor to see the gaps in student success.

Degree and Certificate Programs

For each degree and certificate indicate how many awards were conferred in the past five years. Please comment on any trends and provide context to explain any increases or decreases.

AUT1	094800	Automotive Technology	4	6	6	5	9
AUT6	094800	Automotive Technology - ASSET	1	1	1	0	3
AUT8	094800	Automotive Technology - General Motors ASEP	1	3	2	0	0
AUT9	094800	Automotive Service Councils of California	0	0	0	0	1

Indicate when each degree and certificate was last reviewed and updated (semester), if this information is available (e.g., via internal program records or Curriculum Committee minutes).

All of the degrees and certificates were reviewed in FA2024. The consensus was to create short term certificates without the work experience requirements and name them achievements. This will increase student success through certified achievements.

- [Automotive Technology Chassis Specialist Associate in Science and Certificate of Achievement](#)
- [Automotive Technology Drivetrain Specialist Associate in Science and Certificate of Achievement](#)
- [Automotive Technology Electronics and Electric Vehicle Specialist Associate in Science and Certificate of Achievement](#)
- [Automotive Technology Engine Performance and Smog Technician Associate in Science and Certificate of Achievement](#)
- [Automotive Technology Engine Repair Specialist Associate in Science and Certificate of Achievement](#)
- [Automotive Technology Service Councils of California ASCCA Associate in Science and Certificate of Achievement](#)
- [Automotive Technology – Ford ASSET Associate in Science](#)
- [Automotive Technology – General Motors ASEP Associate in Science and Certificate of Achievement](#)
- [nt](#)
- [Automotive Technology Service Management Associate in Science and Certificate of Achievement](#)
- [Automotive Tec](#)

Can students complete the degree/certificate requirements within a two-year period?

Yes

How is your program currently assessing its PLOs? Please select all that apply.

Other

If you answered "Other" above, please specify here.

We evaluate our PLO's through faculty meetings, advisory meetings, and national ASE meetings, as well as Ford and General Motors advisory meetings.

Comprehensive Program Review

Please provide the following for each degree/certificate: ? The most recent semester each of your program(s) assessed PLOs; ? Brief summary of findings; and ? Overview of changes made as a result.

We assessed PLOs during the Fall 2024 semester. We found that the majority of our degrees/certificates work experience requirements may prevent a student from receiving a certificate of achievement. The work experience factor is meant for specializations, which affects students who cannot work. The resolution will be to create short term certificates to help with students' success. We recommend the college provide our department a summary of student degree audits to better track student success or make it part of Self Service.

Are all of your degree maps completed?

Yes

Are the degree maps posted to the college website?

Yes

How are you currently assessing your PLOs? If you are not currently assessing PLOs, what is your plan to assess PLOs in the future?

We evaluate out PLO's through faculty meetings, advisory meetings, and national ASE meetings, as well as Ford and General Motors advisory meetings.

How are your PLO assessments informing improvements/changes to your program?

We assessed PLOs during the Fall 2024 semester. We found that the majority of our degrees/certificates work experience requirements may prevent a student from receiving a certificate of achievement. The work experience factor is meant for specializations, which affects students who cannot work. The resolution will be to create short term certificates to help with students' success. We recommend the college provide our department a summary of student degree audits to better track student success or make it part of Self Service.

Student Access and Achievement

Please describe any enrollment changes (increases/decreases) over the past 4 years and the context for these changes.

According to the program review data given. In Fall 2019, enrollment was 363. In Spring 2024, enrollment was 1,052. That is about a 200 percent increase. The majority of the courses are filling with waitlists. A few of the courses had over 20 students on the waitlist.

If your program has seen a significant decline in enrollment over the past 4 years, what resources or support would be helpful to improve program enrollment and access?

N/A

What is the program doing to increase student enrollment or access?

We are participating in multiple outreach and inreach events. We conduct regularly advisory meetings with industry. We communicate effectively with students in the program. We visit industry dealerships and recruit. We make our curriculum student centered and encourage success.

What is your program's overall course success rate? How has it changed over the past 4-5 years?

As of Spring 2024, the success rate is 88 percent. Compared to lower percentages in the past 4 years. We are currently at our highest success rate.

Which groups are experiencing equity gaps in your program for success rate and/or retention rate?

In the past, we have seen equity gaps in our African American population. As of Spring 2024, we have closed all of our equity gaps. We will continue to work on keeping these equity gaps closed.

What department/discipline (or institutional) factors may be contributing to these lower rates of success for these groups of students?

We have hired more diverse faculty. We have gone through college training programs that focus on equity minded teaching. We focus getting to know our students and developing relationships that help guide them toward success.

Comprehensive Program Review

How has this data shaped your comprehensive program review goals and action steps?

The data shows us where our gaps exceed. We realize we need to bring more woman and African American students into our population. We follow the college mission and do our best to establish the mission in the department.

Discuss your department/discipline's plan for diversifying department faculty in alignment with the GCCCD Board Resolution 20-015.

We would like to hire diverse faculty. It is very difficult to find African American or women technicians who can be trained to be instructors. We are intentionally looking for faculty who meet the college goal for diversity.

What other qualitative or quantitative data, if any, is the department/discipline using to inform its planning for this comprehensive program review?

We use state data, local data, and industry data from advisory meetings.

Distance Education Course Success (If Applicable)

If your department offers distance education classes, how do you ensure Regular and Substantive Interaction (RSI) is being implemented?

Weekly discussions and announcements. Instructor monitoring student participation.

Career Exploration and Program Demand (Career Education Programs Only)

Please share your observations about the employment rate for your program over the last 4 years.

Our advisory meeting, student work experience courses, and industry visits demonstrate an on-going need for work-based learning programs. Our students are also found in other industry sectors, such as: wind turbine, solar, elevator, and other technical industries. These include governments and municipalities.

What is the institution-set standard for your program's employment rate?

We have multiple programs we offer. The Ford and GM programs require a 100% employment rate. The other 7 programs we offer require employment. Our general program does not require work experience. We encourage our students and help them start their careers while in our program. There is no replacement for industry experience. At full capacity, the lowest acceptable employment rate for our program would be 20%.

What would you like your program's employment rate to be, ideally (stretch goal)?

We would like our program's employment rate to be closer to 40%.

What do the latest labor market data reveal about the careers (including those for transfer students) for which your program prepares students?

The labor market data for our program predicts a 3% annual increase according to the U.S. Bureau of Labor Statistics. Automotive vehicles are all around us and will always need to be fixed.

Strengths, Challenges & External Influences

Please describe your program's strengths.

We teach students how to understand and solve complex problems in systems which include: electronic, hydraulic, heating, ventilation, air conditioning, mechanical, and many more.

Our programs are 'work-based learning' which allow students to gain employable skills.

We have a strong set of instructors and lab assistants who dedicated themselves towards student success.

We have a Ford and General Motors manufactures program that allows students to get the latest access to vehicles, technology, training, and equipment.

We directly connect our students with industry partners. We setup interviews for our students who are interested in starting their career. A student has a high chance of getting employed in an automotive related field during the program.

Our classes are full. We are operating at 104% student enrollment. Prior to the start of the Fall 2024 semester, we had many classes with over 20 students on the waitlist.

We help transition DSPS, immigrant, and low-income students into the workforce.

Comprehensive Program Review

Our graduates have gone on to manage FBI fleets, SDGE, Port of San Diego, and have become faculty. As well as managing dealerships and opening private businesses.

We believe we are one of the top automotive programs in the region.

Please describe your program's challenges.

The main challenge of our program feels systemic. Our facility and classroom needs seem overlooked. This does not mean we do not appreciate the hard work of the facilities crews and their services. Larger challenges that have major effects on our students seem ignored.

Historically, this program has always had four full-time faculty. For over two years we were operating with two faculty. Recently we hired another third fulltime faculty. We have multiple programs that we are attempting to manage. These include Ford ASSET and General Motors, which require a fulltime faculty for each. Additionally, one fulltime faculty is required to manage the General Program. The fourth missing faculty would manage the ASCCA program, which has the potential to be the biggest program we offer. The ASCCA program is designed for students who want to operate or work for independent repair businesses. The fourth faculty would help teach and manage the overall department, which includes:

- ASE National Accreditation
- Skills Day - was an annual event that was put on for the high schools that has not been offered since the loss of our fourth fulltime position.
- ASCCA - develop program
- CCAP/Dual Enrollment - multiple high schools have reached out to partner with the department and offer automotive courses at their high school location.
- Shared Governance Participation
- Industry Partnerships
- Marketing/Outreach Events
- Curriculum Development

These are a few of the areas where the department is lacking the human resources, which affect our student success.

Other challenges include:

- Program Student Capacity - The lecture and laboratory capacity should be based on available laboratory space, not the capacity of the lecture classroom.
- Laboratory Area - The student group size should be a maximum of four, ideally three. Group size is part of our ASE and manufacture accreditation requirements. The maximum capacity of both east and west bays should be 48 students total. The current above ground lifts we have decreases the laboratory capacity. We need more lifts in the department that enable us to perform the learning objectives while maximizing the laboratory space. Currently, our evenings have around 60 students in the laboratory are, which should not happen. It is dangerous and not equitable. Every group needs the attention of the instructor simultaneously. The capacity and lift issues have been an on-going challenge for over 8 years. We need in-ground hoists for both east and west bays.

Comprehensive Program Review

- Department Building - The K building is the original 1980's design. There has not been a consideration of building upgrade to increase student success and capacity. There is no discussion in place for the K-Building, while all the other buildings and programs are part of the facility plan for remodel. Meanwhile, our department serves the most diverse (aside from ESL) student population. Our students consistently start their careers during our programs. Our enrollments are increasing and we are limited by the facility structure. We would like to be considered for a renovation and meet with specialists.
- Security Gate - Our main security gate has been broken for around a year. It stays open. We have sent multiple requests and bids to have this repaired, but have gotten nowhere.
- Classroom Reorientation - K121 has a projector that is aimed directly at the instructor. The desk is position in the center of the projection screen. We have recommended re-orientating the classroom, so instructors can use it. This will involve moving the equipment in the classroom and adding a couple of screens. No classes are scheduled in this room due to instructor complaints.
- Drains - The drains were covered in our buildings without consulting with the department. Drains were initially covered with no communication about possible solutions. This is a safety and hazardous waste concern.
- Desk and Chairs - We have very old desks, tables, and chairs. The majority are mismatched hand-me-downs from other departments. This includes the classroom and faculty offices.

All of our challenges have been in multiple previous program reviews and facility requests. We recommend the college administration work directly with the department employees prior to making major changes to the facility.

Please describe external influences that affect your program (both positively and negatively).

Positive external influences:

- Our strong industry partnerships have lead to continuous job placement for our students.
- The need for people who can understand how to fix complex systems is increasing.
- Support from our industry partners through advisory meetings.
- Dependency on vehicles will allow are students to have various opportunities.

Negative external influences:

- The rapid evolution of technology makes it harder to teach the necessary curriculum in a 2-year span.

Given these factors, what opportunities exist for the service area to advance the College's goals in the next 4 years?

Given these factors, the college and department are in a great spot to increase the workforce by providing students with necessary skills and competencies prior to graduation.

Comprehensive Program Review

Program Goals

Program Goals Status

I have updated the progress on my previous goals.

Program Goals Mapping

Mapping for all active Program Goals complete.

Submission
