



Instructional Programs

2017-2018 Self-Study

Three-Year Program Review

Automotive Department

Technology and Engineering Division

Statement of Collaboration

The program faculty listed below collaborated in an open and forthright dialogue to prepare this Self Study. Statements included herein accurately reflect the conclusions and opinions by consensus of the program faculty involved in the self-study.

Participants in the Self-Study

Jose Victor Miranda
John Farley
Charles Zepeda
David Lopez
Robert Maine

Authorization

After the document is complete, it must be signed by the Principal Author, the Department Coordinator, and the Dean prior to submission to the Program Review Committee.

Jose Victor Miranda

Printed name of Principal Author

Signature

Instructor

Title

Date

Jose Victor Miranda

Printed name of Department Coordinator

Signature

Instructor

Title

Date

Kenneth Starkman

Printed name of Dean

Signature

Dean

Title

Date

1.0 Mission and Goals

The College's Mission, Vision, Core Values and Goals drive all college activities. The Program Review committee would like to understand the connection of your program to the College's Mission, Vision, Core Values and Goals. Summarize how your program supports each area.

Mission: In alignment of the Fullerton college mission, the instructors from the Fullerton College Automotive Department prepare the students to advance in the learning and achievement by developing flexible pathways for the students from our diverse communities who want training and career growth by earning automotive certificates and associate degrees. We foster a supportive and inclusive environment for our automotive students to be successful learners, responsible leaders, and engaged community members.

Vision: The instructors at Fullerton College Automotive help transform the students' lives and inspire them positive change in their automotive repair world. The automotive program here at Fullerton College promotes the practice of critical thinking in analyzing (diagnosing) automotive components failures that originated by other components or sources from other systems.

Core Values: Fullerton College Automotive encourages the respect to the diversity of our entire community. We continue to value tradition and innovation. We embrace the involvement of all in the decision – making process. We believe in the power of the individual and the strength of the group. We involve students to teach others in group settings as network process. The students feel empower by performing as tutors. The automotive department will continue to promote these core values of individual tests, group-team work and networking application.

College Goals: Here at the automotive department, the instructor promotes advances in learning and achievements by developing flexible pathways for students from our diverse communities who seek educational and career growth. The students earn certificates, associate degrees, job placement, and transfer. We guide the students in a continuing basis in their standing position to apply for their certificates and degrees. We keep promoting the green technology by adopting new innovations. The curriculum is developed after the instructor gets certificated on specific certification to teach the courses. New or hybrid vehicles have been obtained. In addition, new equipment will be acquired and three vehicles are need. We will continue to incorporate the wireless diagnosis of vehicles equipped with OBDII and CAN systems.

2.0 Program Data & Trends Analysis

2.1 Key Performance Indicators (KPI)

For each KPI listed below, analyze and report your findings and describe what they mean. (Attach 5-year longitudinal data from Office of Institutional Research and Planning (OIRP) to Appendix.)

KPI	Findings
Enrollment	Enrollment has slightly increased over the last five years: 2013 2014 2015 2016 2017 543 631 691 681 662
Total FTES	There has been an increase:

	2013 133.5	2014 163.2	2015 180.6	2016 179.6	2017 160.5
Sections	There has been an increase in sections offering:				
	2013 32	2014 34	2015 40	2016 39	2017 38
FTEF	The has been an increase:				
	2013 12.9	2014 14.1	2015 16.3	2016 15.9	2017 15.6
Fill Rate	The fill rate has been steady over the last five years:				
	2013 99.1%	2014 106.8%	2015 98.7%	2016 100.1%	2017 90.7%
WSCH/FTEF	It has been an increase over the last five years:				
	2013 309.6	2014 346.8	2015 332.0	2016 338.9	2017 308.3
Retention	There has been a steady retention rate averaging 86.62 %:				
	2013 87.8%	2014 89.4%	2015 85.5%	2016 84.4%	2017 86.0%
Success	Here has been a success rate averaging 78.38%:				
	2013 80.8%	2014 80.7%	2015 76.8%	2016 75.9%	2017 77.7%

2.2 Peer Institution Comparison

Complete the table below.

College/Program: Auto	Your Program Fullerton College	Peer A Cypress College	Peer B Mira Costa College	Peer C Rio Hondo College	Peer D Santa Ana College
Retention:	86.62	83.03	76.86	77.0	76.9
Success:	78.38	81.5	73.2	74.8	75.1
Degrees Awarded:	32	13	25	24	16
Certificates Awarded:	23	36	14	9	32
Transfers:	0	0	0	0	0

How does your program compare with peer institutions? Provide a *narrative* of your comparison. (Peer institutions are colleges or programs identified by the Office of Institutional Research and Planning (OIRP)). In the area of retention and success rate, Fullerton College Automotive and Cypress College have both increased their retention and success rate from 2015 to 2017. On the other hand, Mira Costa College, Rio Hondo College, and Santa Ana College have steady from 2015 to 2017. Fullerton College Automotive was ahead with the number of AS degrees.

2.3 Achievement Gap

Indicate achievement gap for each of the groups listed below. (Attach to Appendix the Success and Retention by Ethnicity Data as identified by the Office of Institutional Research and Planning.)

Group	% Retention	% Success
Males	82	76
Females	86	78
Asian-American	87	82
African-American	59	58
Filipino	81	79
Hispanic	82	73
Native American	91	50
Other Non-White	68	66
Pacific Islander	75	50
White	86	82
Unknown	72	58
Range (Max-Min)	100% to 60%	100% to 50%

2.4 Program Effectiveness

Since your previous Program Review Self-Study, what significant changes have occurred that impact the effectiveness of your program?

We have installed two extra hoists, five new wireless scan tools, and five tool boxes were filled with new tools for the student's accessibility. The student retention and success have both increased.

2.5 Describe any laws, regulations, trends, policies, procedures or other influences that have an impact on the effectiveness of your program. Please include any other data (internal or external) that may be relevant to student achievement, learning, and trends within your Basic Skills, CTE, or Transfer Education programs.

The Automotive Department complies with the ordinance from the city of Fullerton in organizing and properly labeling and recycling materials that are corrosive, combustible or flammable, and keeping the licensing of the automotive shop. In addition, we maintain a high level of ethics with customers and staff who bring their vehicles for repair by our students. The exercising of ethics is reflected by the proper writing of the repair orders, and the application of the 3C's (customer complain, cause, and correction). We are licensed by the state of California through the branch of Consumer Affairs from BAR (Bureau of Automotive Repair).

2.6 Provide any other data that is relevant to your self-study.

The key performance indicator (KPI) data demonstrates that during the period of 2013 – 2017 the enrollment in our auto program grew from 543 to 602 students. The retention rate was averaged at 87% an increase of 2% from the previous program review cycle. Also, a success rate of 78% shows an increase of 3% higher from the previous program review. The high number of students identify with this major in automotive suggest a significant student population benefits us from filling classes in advance work. Fullerton College Automotive regularly ranks among the top twenty-one majors selected by the students at Fullerton College in general.

3.0 Strengths, Weaknesses, Opportunities, Challenges (SWOC)

Based on your analysis in 2.1 through 2.6, answer the following questions:

3.1 What are the strengths of your program?

Fullerton College automotive program keeps supplying the demand of more technicians needed to fill the vacated positions left by technicians who retire from dealers, independent car repairs, and franchising repairs. Also, the automotive repair industry keeps growing in the Orange county area, and more technicians to be hired is expected to grow. Thanks to dedicated and amazing program review committee, we have hired the fifth instructor who is ready to fully implement the green technology.

3.2. What are the weaknesses of your program?

Since the last program review some equipment and vehicles have been update or replaced, but still have in the automotive department old vehicles and equipment need to be updated. These vehicles and equipment are worn out by the constant practice by the students. We need to add an extra storage outside from the auto department. This storage will serve to protect the student's projects and equipment from dirt, water or other contaminants. We need more parking spaces for vehicles that the students are working and need to be left overnight to continue working the next class meeting. Our automotive department area is extremely small compared to other colleges' automotive departments. We added the fifth instructor with idea to develop and adapt the green technology. We need a number four classroom in order to expand our program. The auto department is in need to add Microsoft Office programs to our shop computers. There is a need to increase the number of computers for the students to use. With the advances of the technology in new vehicles, we are in need to buy factory scan tools and pay the yearly memory reset computers on the vehicles. These new vehicle, in most cases, when the technicians work on their modules they need to get permission from the factories to top on their mainframe system for a year right of the license of about \$2,000.00 per factory. We need at least five different factory rights.

3.3 What opportunities exist for your program?

The opportunity that has been identified is the fully incorporation of the green technology which includes, electric car, hybrids, and other similar innovations. The automotive industry is growing with demands of more well trained-disciplined technicians. These new technicians must be able to analyze (diagnose) the innovations of the new technologies.

3.4 What challenges exist for your program?

The following challenges have been identified:

1. Extend the facility to add one or more classrooms, one classroom per dedicated full-time instructor is needed.
2. Add more vehicle lifts because the number of enrollment keeps increasing.
3. Purchase another alignment rack because currently one alignment rack is not enough.
4. In CurricUNET, the need to revise all automotive courses to general education electives status (100 level and above). This way we can articulate to the B.A. degree in automotive technology program at Rio Hondo College.
5. Add a storage room and engine machinist room for the students' projects and practice.
6. Add Microsoft Office programs to our shop computers and increase the number of computers available for the students to use.
7. Purchase more new vehicles to align the program with the new technology at the dealers.
8. Purchase factory scan tools and the right to get access to re-flush the computer memory when the student works on one or more modules on CAN (Central Area Network) systems.

4.0 Student Learning Outcomes (SLO) Assessment

4.1 List your program level SLOs and complete the expandable table below.

	Program Student Learning Outcomes (PSLOs)	Date Assessment Completed	Date(s) Data Analyzed	Date(s) Data Used For Improvement	Number of Cycles Completed
1.	Evaluation of PSLO's and data identified that the implementation are valid and reliable to the program. The course SLO's guide the students to set short and long-term goals within the automotive program.	10/2017	10/2017	2015 - 2017	Three - year cycle
2.	PSLO's will support student success with theoretical and practical and practical effectiveness and relevance.	10/2017	10/2017	2015 - 2017	Three-year cycle
3.	Continuo implementing PSLO's incorporating collaboration and critical thinking skills.	10/2017	10/2017	2015 - 2017	Three-year cycle

4.2 Assessment: Complete the expandable table below.

Program Student Learning Outcomes Assessment for Instructional Programs at Fullerton College			
Intended Outcomes	Means of Assessment & Criteria for Success	Summary of Data Collected	Use of Results
1. PSLO's implementation will reflect an increase in student retention and success.	KPI data with measurable indicators will assess the success of the outcome.	KPI summary will reflect data collection every three year. This will establish a baseline and consisted objectives for each group.	The results will validate data trends and PSLO's during the next cycle for re-evaluation.
2. Implementation of PSLO's will reflect an increase in student retention.	KPI data and reliable indicators will assess the success of the intended outcome.	KPI will reflect data collection in three year increments. This will establish a baseline and consistent objectives for each group.	The results will validate data information and PSLO's during the next cycle.

4.3 What percentage of your program level SLOs have ongoing assessment? Comment on progress/lack of progress.

100 % of the automotive courses have identified SLO's. The current SLO's have been approved by the curriculum committee and been integrated into CurricUNET.

4.4 How has assessment of program level SLOs led to improvements in student learning and achievement?

The assessment of program level SLO's have provided the objectives and the proper assessment procedures. Based on the evidence provided by the SLO's, there is a need of improve to bring the SLO's to higher written level of instruction Taxonomy. The instructional higher level must include cognitive

domain, psychomotor domain, and affective domain. The utilization of various instructional and assessment modalities has proven to be a success toll and verified through KPI, certificate percentages awarded, AS degrees, career preparation and mostly placement of students in jobs.

4.5 How has assessment of program-level SLOs led to improvements in transfer or certificate/degree awards?

The assessment provides enough evaluation for the automotive technology program to ease for the issuing of certificates and AS degrees. Recognition of student success rates shows 87% retention, 78% success. The trends and data are positive indicators as to improvements in certificates and AS degrees within this program. The need for training more automotive technicians is growing at the local and state wide levels. Career advancements and initial hiring processes are increasing at the automotive repair facilities with a demand of more certificated technicians.

4.6 What challenges remain to make your program level SLOAs more effective?

The effectiveness and continuity of program – level SLO's that aligns with the assessment will generate a challenge that will provide strength within the automotive program. This process will consist of instructional collaboration, training, and the implementation of the program as a whole.

5.0 Evaluation of Progress Toward Previous Goals/SAP's (Future program review templates for this section will identify "previous goals" as "previous *strategic action plans*"-- SAP's.)

5.1 List the goals from your last self-study/program review.

We will promote success by helping under prepared students to learn the material using cognitive domain, psychomotor domain, and affective domain. We will promote the increase number of certificates and AS degrees. We will guide the students and a continuing basis in their assessment of their standing position to apply for their certificates and AS degrees. We will promote the green technology by adapting innovations.

5.2 Describe the level of success and/or progress achieved in the goals listed above.

The goals from the past review cycle were partially met because we are still working to finalize the goals as a whole.

5.3 How did you measure the level of success and/or progress achieved in the goals listed above?

We used KPI data information, hiring of the fifth instructor to teach the green technology, and maintaining most of the equipment and all of the organization listed above.

5.4 Provide examples of how the goals in the last cycle contributed to the continuous quality improvement of your program.

The automotive department has been committed to excellence and the continuous goal achievement from the last cycle confirms our progress and program benchmark. Focusing on data to analyze and tracking the goals and accomplishments (i.e. student success, retention, reduction of achievement gaps, and strengthen the connection with our community) has proven to assist the measuring of the quality improvement in the program.

5.5 In cases where resources were allocated toward goals in the last cycle, how did the resources contribute to the improvement of the program?

The students were able to practice in five hybrids (Toyota Prius) vehicles and a 2012 standard Ford Mustang. They practice safety on live hybrid vehicles. We were able to purchase five wireless scan tools. The students can use these wireless scan to operate headlights, electric windows, read codes, read live data, oscilloscope signals and other features from a distant of up to 20 feet. Also, a new brake lathe was purchase.

5.6 If funds were not allocated in the last review cycle, how did it impact your program?

The need of storage room and the extra parking spaces were a problem to fully get of the program the maximum of the educational training.

6.0 Strategic Action Plans (SAP) [formerly called Goals (6) and Requests for Resources (7)]

Using the tables below, list the strategic action plans (SAPs) for your program. These plans should follow logically from the information provided in the self-study. Use a separate table for each SAP.

SAPs for this three-year cycle:

STRATEGIC ACTION PLAN # 1		
Describe Strategic Action Plan: (formerly called short-term goal)	Request to expand the existing automotive facility to include: 12 parking spaces, a storage room, and a classroom.	
List College goal/objective the plan meets:	College Goal # 1: Fullerton College will promote student success. Objective # 3: Increase the number of degrees and certificates awarded.	
Describe the SAP: (Include persons responsible and timeframe.)	Management, coordinators, staff, and faculty will be responsible for this SAP, and the timeline will take place within the 36-month cycle.	
What <i>Measurable Outcome</i> is anticipated for this SAP?	Access to appropriate facilities, technology and equipment required to serve common student needs, to include student success and retention, along with competitive job skills is anticipated to increase by 1%, if this SAP is approved and funded.	
What specific aspects of this SAP can be accomplished without additional financial resources?	None	
If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.		
Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities	\$20,000.00	Bond Measure/District
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	\$20,000.00	

STRATEGIC ACTION PLAN # 2

Describe Strategic Action Plan: (formerly called short-term goal)	Request to purchase one alignment rack, two car lifts, for the existing garage (automotive facility).
List College goal/objective the plan meets:	College Goal # 1: Fullerton College will promote student success. Objective # 3: Increase the number of degrees and certificates awarded.
Describe the SAP: (Include persons responsible and timeframe.)	Management, coordinators, staff, and faculty will be responsible for this SAP, and the timeline will take place within the 36-month cycle.
What <i>Measurable Outcome</i> is anticipated for this SAP?	Access to appropriate facilities, technology and equipment required to serve common student needs, to include student success and retention, along with competitive job skills is anticipated to increase by 1%, if this SAP is approved and funded.
What specific aspects of this SAP can be accomplished without additional financial resources?	None

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment	\$40,000	District/CTE
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	\$40,000	

STRATEGIC ACTION PLAN # 3

Describe Strategic Action Plan: (formerly called short-term goal)	Request to purchase two vehicles for the existing courses.
List College goal/objective the plan meets:	College Goal # 1: Fullerton College will promote student success. Objective # 3: Increase the number of degrees and certificates awarded.
Describe the SAP: (Include persons responsible and timeframe.)	Management, coordinators, staff, and faculty will be responsible for this SAP, and the timeline will take place within the 36-month cycle.
What <i>Measurable Outcome</i> is anticipated for this SAP?	Access to appropriate facilities, technology and equipment required to serve common student needs, to include student success and retention, along with competitive job skills is anticipated to increase by 1%, if this SAP is approved and funded.
What specific aspects of this SAP can be accomplished without additional financial resources?	None

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment	\$50,000	District/CTE
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	\$50,000	

STRATEGIC ACTION PLAN # 4

Describe Strategic Action Plan: (formerly called short-term goal)	Request to purchase Microsoft Office software for program computers.
List College goal/objective the plan meets:	College Goal # 1: Fullerton College will promote student success. Objective # 3: Increase the number of degrees and certificates awarded.
Describe the SAP: (Include persons responsible and timeframe.)	Management, coordinators, staff, and faculty will be responsible for this SAP, and the timeline will take place within the 36-month cycle.
What <i>Measurable Outcome</i> is anticipated for this SAP?	Access to appropriate facilities, technology and equipment required to serve common student needs, to include student success and retention, along with competitive job skills is anticipated to increase by 1%, if this SAP is approved and funded.
What specific aspects of this SAP can be accomplished without additional financial resources?	None

If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.

Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software	\$5,000	District/CTE
Training		
Other		
Total Requested Amount	\$5,000	

7.0 Long Term Plans

Describe the long term plans (four-six years) for your program. Please consider future trends in your narrative. (Identifying financial resources needed for these plans is optional.)

Long-term plans for the automotive department consist in maintaining course offerings, instructional equipment, faculty, staff. The automotive department will work to regain the recertification of the NATEF standards. The addition of fourth classroom and storage room are priority for the success of the automotive students.

8.0 Self-Study Summary

This section provides the reader with an overview of the highlights, themes, and key elements of this self-study. It should not include new information that is not mentioned in other sections of this document. The automotive department parallels with the Fullerton College goals and objectives which includes the following: student success, reduction of the achievement gap, and strengthen connections with the community. The documentation within this program review reflects Fullerton College goals and objectives, along with the District's Strategic Plan.

9.0 Publication Review

Fullerton College is committed to assuring integrity in all representations of its mission, programs, and services. As such, during the program review self-study process programs are required to document their publications (websites, brochures, pamphlets, etc.), when they were last reviewed, and denote the publication is accurate in all representations of the College and program missions and services. In the far right column please provide the URL where the publication can be accessed. If it cannot be accessed via the Internet, please contact Lisa McPheron, Director of Campus Communications at lmcpheon@fullcoll.edu.

Information on the college's graphic standards is available here: <http://news.fullcoll.edu/campus-communications/web-help/graphics/>.

Please identify when the publication was last reviewed, and confirm that it is accurate in how it represents the college. In the far right column please provide the URL where the publication can be accessed.

Publication	Date last reviewed	Is the information accurate?	URL of publication
FCC Automotive Dept.	May 2017	Yes	

<http://techeng.fullcoll.edu/automotive>

If it cannot be accessed via the Internet, please provide a sample of the publication with your program review self-study.

For publications that you have identified as inaccurate, please provide the action plan for implementing corrections below.

Routing & Response Page

Originator → IMS → Appropriate President's Staff Member → Program Review Chair

Originator

Electronically submit completed Program Review to Division Dean/IMS for review.

Appropriate Immediate Management Supervisor (IMS)

RESPONSE

Printed name of IMS _____

Title _____

Date _____

Select one and provide response if necessary. Forward electronically to appropriate Vice President's Office.

I concur with the findings contained in this Program Review.

I concur with the findings contained in this Program Review with the following exceptions (include a narrative explaining the basis for each exception):

Area of exception:

I do not concur with the findings contained in this Program Review (include a narrative explanation):

Appropriate President's Staff Member

Acknowledging Receipt

Printed Name _____

Signature _____

Title _____

Date _____

Print Program Review, sign, and route both hard copy and electronic version to Program Review Chair.



Fullerton College Mission Statement

MISSION

Fullerton College advances student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

VISION

Fullerton College will transform lives and inspire positive change in the world.

*Approved by Fullerton College
President's Advisory Council and
accepted by President Schulz
May 2017.*

VALUES

Community

We promote a sense of community that enhances the well-being of our campus and surrounding areas.

Diversity

We embrace and value the diversity of our entire community.

Equity

We commit to equity for all we serve.

Excellence

We honor and build upon our tradition of excellence.

Growth

We expect everyone to continue growing and learning.

Inclusivity

We support the involvement of all in the decision-making process.

Innovation

We support innovation in teaching and learning.

Integrity

We act in accordance with personal integrity and high ethical standards.

Partnership

We work together with our educational and community partners.

Respect

We support an environment of mutual respect and trust that embraces the individuality of all.

Responsibility

We accept our responsibility for the betterment of the world around us.