FULLERTON COLLEGE
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Instructional Programs
2014-2015 Self-Study
Three-Year Program Review Template

Automotive Technology Department

Technology and Engineering

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
David Lopez
John Farley
Charles Zepeda

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	*Jose V. Miranda*	Instructor	12-09-14
Printed name of Principal Author	Signature	Title	Date
Jose Victor Miranda	*Jose V. Miranda*	Instructor	12-09-14
Printed name of Department Coordinator	Signature	Title	Date
Scott McKenzie	*Scott Mc...*	Dean	12/13/14
Printed name of Dean	Signature	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: Fullerton College Mission Statement: "We prepare students to be successful learners." We, in the Automotive Department, prepare the students to be successful learners on a continuing basis. The course work in the automotive program provides the theory and laboratory experience that simulates the work environment of factory sponsored dealerships or independent private owned repair stations. The students research information on a daily basis to repair vehicles. The students are trained during and after their normal education to learn to adjust to the innovation of new technology concerning the evaluation of vehicle failures for the proper recommendations for repairs.

Vision: Fullerton College will create a community that promotes inquiry and intellectual curiosity, personal growth and a life–long appreciation for the power of learning. The automotive program here at Fullerton College promotes to the students inquiry and intellectual curiosity by practicing critical thinking in analyzing automotive components failures that are originated by other components or sources from other systems.

Core Values: Fullerton College has several core values and not limited to: We respect and value the diversity of our entire community. We value tradition and innovation. We support the involvement of all in the decision-making process. We believe in the power of the individual and the strength of the group. The automotive instructors and staff encourage the students to respect the values and diversity of students, customers and visitors. We involve the students to teach others in group settings. The students feel empower by acting as tutors. The automotive department promotes individual tests and group-team work setting and networking application.

College Goals: Fullerton College will promote student success. We, the automotive instructors, promote student 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 degrees. We guide the students in a continuing basis in the assessment of their standing position to apply for their degrees. We are promoting the green technology by adopting new innovations. We have been awarded by VTEA to teach a course on Hybrid Technology. The curriculum will be developed after the instructor gets certificated on specific certification to teach the courses. New or used Hybrid Vehicles will be obtained, and, in addition, new equipment will be acquired. We will incorporate to automotive department the wireless assessment (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 increased over the last five years. More courses have been offered.

Total FTES	There has been an increase.
Sections	There has been an increase in sections offerings.
FTEF	There has been an increase.
Fill Rate	The fill rate has been steady over the last five years.
WSCH/FTEF	It is steady over the last five years.
Retention	There has been a steady retention rate averaging 81.6%
Success	Here has been a success rate averaging 73%

2.2 Peer Institution Comparison

California Community Colleges
Chancellor's Office
Credit Course Retention/Success Rate
Summary Report

	Fall 2011	Fall 2011	Fall 2012	Fall 2012	Fall 2013	Fall 2013
	Credit	Credit	Credit	Credit	Credit	Credit
	Retention Rate	Success Rate	Retention Rate	Success Rate	Retention Rate	Success Rate
Fullerton College Total	84.00%	78.00%	85.00%	80.00%	89.00%	81.00%
Non Distance Education Methods Total	84.00%	78.00%	85.00%	80.00%	89.00%	81.00%
Automotive Technology-094800	84.00%	78.00%	85.00%	80.00%	89.00%	81.00%
Cypress Total	85.21%	75.83%	89.63%	79.72%	92.02%	83.07%
Non Distance Education Methods Total	85.21%	75.83%	89.63%	79.72%	92.02%	83.07%
Automotive Technology-094800	85.21%	75.83%	89.63%	79.72%	92.02%	83.07%
Mira Costa Total	90.82%	76.57%	87.50%	73.18%	88.41%	78.86%
Non Distance Education Methods Total	90.82%	76.57%	87.50%	73.18%	88.41%	78.86%
Automotive Technology-094800	90.82%	76.57%	87.50%	73.18%	88.41%	78.86%
Rio Hondo Total	88.95%	78.44%	86.25%	75.20%	91.33%	77.00%
Non Distance Education Methods Total	88.95%	78.44%	86.25%	75.20%	91.33%	77.00%
Automotive Technology-094800	88.95%	78.44%	86.25%	75.20%	91.33%	77.00%
Santa Ana Total	84.44%	73.61%	83.28%	74.49%	89.64%	77.03%
Non Distance Education Methods Total	84.44%	73.61%	83.28%	74.49%	89.64%	77.03%
Automotive Technology-094800	84.44%	73.61%	83.28%	74.49%	89.64%	77.03%

	Annual 2011-2012	Annual 2012-2013	Annual 2013-2014
Fullerton College Total	24	17	29
Associate of Science (A.S.) degree	4	6	1
Certificate requiring 30 to < 60 semester units	4	5	2
Certificate requiring 12 to < 18 units	16	6	26
Cypress Total	34	24	21
Associate of Science (A.S.) degree	7	7	4
Certificate requiring 30 to < 60 semester units	27	17	17
MiraCosta Total	28	46	25
Associate of Arts (A.A.) degree	9	8	6
Certificate requiring 18 to < 30 semester units	17	35	19
Certificate requiring 12 to < 18 units	2	3	
Rio Hondo Total	9	19	20
Associate of Science (A.S.) degree	6	11	7
Certificate requiring 30 to < 60 semester units	3	7	3
Certificate requiring 18 to < 30 semester units		1	2
Certificate requiring 12 to < 18 units			8
Santa Ana Total	26	16	15
Associate of Science (A.S.) degree	6	4	5
Certificate requiring 18 to < 30 semester units	9	5	10
Certificate requiring 12 to < 18 units	11	7	

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 credit retention and success rate, Fullerton College has increased its percentage from Fall of 2011 to Fall of 2013. Of the four peer institutions, Fullerton College and Cypress College have both increased steadily in these two areas. While MiraCosta, Rio Hondo, and Santa Ana Colleges have not steadily increased from Fall 2011 to Fall of 2013.

Programs awards, of the four peer institutions, Fullerton College has ranked 4th in the total awards issued in the 2011 – 2012 annual comparison. However, Fullerton College became the leader in the issuance of awards as of the annual 2013 – 2014 reporting period. In 2011 – 2012, Fullerton College issued 24 awards and in 2013 – 2014, 29 awards.

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	AN0910 82%; AN1011 84%; AN1112 87%; AN1213 87%; AN1314 89%	AN0910 74%; AN1011 79%; AN1112 80%; AN1213 81%; AN1314 80%
Females	AN0910 84%; AN1011 71%; AN1112 79%; AN1213 88%; AN1314 90%	AN0910 78%; AN1011 69%; AN1112 72%; AN1213 79%; AN1314 83%
Asian-American	AN0910 87%; AN1011 87%; AN1112 89%; AN1213 81%; AN1314 97%	AN0910 82%; AN1011 87%; AN1112 81%; AN1213 78%; AN1314 87%
African-American	AN0910 60%; AN1011 57%; AN1112 78%; AN1213 69%; AN1314 94%	AN0910 60%; AN1011 57%; AN1112 78%; AN1213 54%; AN1314 88%
Filipino	AN0910 80%; AN1011 87%; AN1112 65%; AN1213 83%; AN1314 94%	AN0910 80%; AN1011 87%; AN1112 59%; AN1213 79%; AN1314 91%
Hispanic	AN0910 82%; AN1011 81%; AN1112 84%; AN1213 89%; AN1314 88%	AN0910 72%; AN1011 76%; AN1112 75%; AN1213 81%; AN1314 77%
Native American	AN0910 100%; AN1011 84%; AN1112 56%; AN1213 N/A%; AN1314 100%	AN0910 100%; AN1011 84%; AN1112 56%; AN1213 N/A%; AN1314 0%
Other Non-White	AN0910 67%; AN1011 100%; AN1112 N/A%; AN1213 N/A%; AN1314 N/A%	AN0910 67%; AN1011 100%; AN1112 N/A%; AN1213 N/A%; AN1314 N/A%
Pacific Islander	AN0910 N/A%; AN1011 N/A%; AN1112 100%; AN1213 N/A%; AN1314 100%	AN0910 N/A%; AN1011 N/A%; AN1112 0%; AN1213 N/A%; AN1314 100%
White	AN0910 83%; AN1011 86%; AN1112 92%; AN1213 88%; AN1314 89%	AN0910 76%; AN1011 79%; AN1112 88%; AN1213 82%; AN1314 84%
Unknown	AN0910 73%; AN1011 89%; AN1112 92%; AN1213 100%; AN1314 100%	AN0910 53%; AN1011 89%; AN1112 77%; AN1213 100%; AN1314 83%
Range (Max-Min)	100%-56%	100%-0%

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 acquired a new automotive building that we are adjusting to get of it the best utilization. We will work hard to bring our automotive program to a better program.

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.

We meet the city of Fullerton ordinance to keep the automotive department organized, and properly recycle materials that are corrosive, Flammable or spontaneous combustion. Also, we maintain a high level of ethics with customers who bring their vehicles to repair by our students. The exercising of ethics is reflected by the proper writing of a repair order, and the application of the 3C's (customer complain, cause and correction). We are licensed by the state of California as a repair station. We are monitored by the state of California through the branch of Consumer Affairs under BAR (Bureau of Automotive Repair).

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

Key performance Indicators (KPI) data demonstrate that during the period from 2009 – 2014 the program supported an average of 214 majors with a retention rate in courses of 85% and a success rate of 75%. Both retention and success rates exceed the fullerton College averages. The high number of students identified with this major suggests a significant student population to draw from filling classes in advanced coursework. Automotive Technology regularly ranks among the top twentyone majors selected by students at fullerton College.

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?

The automotive program will have supply the demand of more technicians needed to fill the vacated positions left by technicians who retire. Also, the automotive repair industry is growing in the Orange county area and the number of new technicians to be hired is expected to grow.

3.2. What are the weaknesses of your program?

Most of the equipment that we have in the automotive department is wearing out due to the constant daily use by the students. Also, the fleet of vehicles needs to be updated. Most of those vehicles are too old (over 20 years) and worn out by the constant removal and installation of parts by the students.

3.3 What opportunities exist for your program?

The opportunity that exist for our program is the expansion of it. The automotive industry is growing with demands of more well-trained technicians to understand and be able to analyze (diagnose) the new innovation of technologies on the new vehicles.   The necessity to hire the number five full- time instructor to teach green technology is clearly an identified need.

3.4 What challenges exist for your program?

The program must be properly financed to meet the needs of better equipment to evaluate (diagnose) the advanced technology on new vehicles.

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.	11/2014	11/2014	2012-2014	Three-Year Cycle
2.	PSLO's will support student success with theoretical and practical new millennium effectiveness and relevance.	11/2014	11/2014	2012-2014	Three-Year Cycle
3.	Continuo implementing PSLO's incorporating collaboration and critical thinking skills.	11/2014	11/2014	2012-2014	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. Implementation of PSLO's will reflect an increase in student success.	KPI data with measurable indicators will assess the success of the intended outcome.	KPI results 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 reevaluation.
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 trends 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 for reevaluation.

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 have been integrated into CurricuNet.

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

The assessments have provided the initial objectives regarding SLO identification and the proper assessment procedures. Based on the evidence provided by the initial SLO's, there is a need for improve to bring the SLO's to a higher written level of instructional Taxonomy. The instructional higher level should include cognitive domain, psychomotor domain and affective domain. The utilization of various instructional and assessment modalities has proven to be a success tool and verified through KPI, certificate percentages awarded, career preparation and most of all hiring.

4.5 How has assessment of program-level SLOs led to improvements in transfer or certificate/degree awards?
The assessment has provided enough evaluation for the automotive technology program for the issuing of certificates. Recognition of high student success rates (83 % retention rate and 74% success rate); despite the budget reduction during the previous four years, the increase of the enrollment for this year verifies the success of the program.   The trends and data are positive indicators as to improvements in certificates within this program. The necessity for training new automotive technicians with certification is a growing trend at the local and state levels. Career advancements and initial hiring processes, are increasing at 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 align 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.
First short-term goal plan was to maintain our core classes and try to keep as many of the other classes on a rotainal basis due to the budget restraints and class scheduling reductions. Second short-term goal was to keep all four full-time instructors with a full contract load.
First long-term goal was to develop and maintain contact with the automotive industry and industry groups such the Automotive Service Excellence (ASE), Orange County Dealers Association (OCADA), the Automotive Service Council (ASC), and Specialty equipment manufacturers Association (SEMA, and The National Hot Rod Association (NHRA). Second long-term goal was to maintain and improve our classrooms, laboratories, and equipment to conform to industry standards.

5.2 Describe the level of success and/or progress achieved in the goals listed above.
The goals from the past review cycle were met and specific to the success and retention goals the program exceeded the benchmarks. The goals from the past program review are general, but measurable in the ability to validate through success and retention of the objectives.

5.3 How did you measure the level of success and/or progress achieved in the goals listed above?
The level of success and achievement were measured by analyzing KPI data, the hiring of two new instructors for replacement of retired instructors, maintaining most of the equipment and all the organizations 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 is committed to excellence and the continuous goal achievement from the last cycle confirms our progress and program benchmark achievements. Focusing on data to analyze and tracking the goals and accomplishments (i.e. student success, retention, reduction of achievement gaps, and strengthen the connections with our community) has proven to aid the measuring of quality improvements 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?
Unfortunately the resources were reduced significantly from the last cycle because of statewide budget cuts. The automotive department had to reduce course offering and indirectly the lack of funds contributed to the slow success of our students.

5.6 If funds were not allocated in the last review cycle, how did it impact your program?
 The lack of funding negatively impacted the automotive program as a whole. The automotive courses were recycled on a rotational basis which slightly reduced the automotive department of certificates. The data indicates a direct indicates a direct correlation between the budget amendments and certificate reduction. Also, the automotive industry slowdown the hiring of new technicians.

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 automotive department program to obtain the # 5th full-time instructor. The new #5th instructor will be dedicated to cover most of the green technology and other duties that part of the load per contract.
List College goal/objective the plan meets:	College Goal: Maintain the safety of all students, staff, and faculty. Required instructional equipment (classroom and laboratory) and mandated inventory should be in current working, safe, and state-of the art equipment that replicates the work environment. Objective: Provide a safe environment for all automotive students, faculty and staff support, along with facility-approved scheduling.
Describe the SAP: (Include persons responsible and timeframe.)	Management, coordinators, and staff will be will be responsible to approve, reevaluate, and provide the timeline of request.
What *Measurable Outcome* is anticipated for this SAP?	Given the approval of the funding requested for equipment and hiring of personnel will assist in increasing student success and retention in the program.
What specific aspects of this SAP can be accomplished without additional financial resources?	Facilities utilization by automotive students, faculty, and staff are already in our area. May be a need to use an extra lecture room for the teaching of green technology by the 5th fulltime instructor.
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	Hire one additional full-time instructor (FTEF) member to	NOCCCD

	maintain the expansion and stability of the program.	
Facilities	N/A	
Equipment	Will be identified	
Supplies	. Will be identified	
Computer Hardware	Will be identified	
Computer Software	Will be identified	
Training	Will be identified	
Other	Will be identified	
Total Requested Amount	Will be identified	

STRATEGIC ACTION PLAN # 2	
Describe Strategic Action Plan: (formerly called short-term goal)	The automotive department consists of equipment, personnel, and faculty utilization. The priority of goals are consistent with the past Program Review and verification by the administrators.
List College goal/objective the plan meets:	College Goal #: Objective #:
Describe the SAP: (Include persons responsible and timeframe.)	
What *Measurable Outcome* is anticipated for this SAP?	
What specific aspects of this SAP can be accomplished without additional financial resources?	

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		
Training		
Other		
Total Requested Amount		

STRATEGIC ACTION PLAN # 3	
Describe Strategic Action Plan: (formerly called short-term goal)	
List College goal/objective the plan meets:	College Goal #: Objective #:
Describe the SAP: (Include persons responsible and timeframe.)	
What *Measurable Outcome* is anticipated for this SAP?	
What specific aspects of this SAP can be accomplished without additional financial resources?	

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		
Training		
Other		
Total Requested Amount		

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 the 5th full-time instructor as a priority for the success and retention of the automotive students.

8.0 Self-Study Summary

This section provides the reader with an <u>overview</u> 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 is united with Fullerton's 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 District's Strategic Plan.

**Division Deans' or appropriate Immediate Management Supervisor (IMS)
Response Page**

☐   *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:
Unfortunately the department never provided a draft copy for review on
the date identified by the Program Review Committee (November 21) and
directed by the Dean on numerous occasions dating back to August 2014.
This draft was submitted on 12/9/2014 at 8:58 PM for a first viewing. It
has poorly developed SAPs that are not well connected to student success.
I have chosen to submit it on-time to the VPI since the department did not
provide me an opportunity to work with them to develop ideas, review
their report, or make suggestions for improving its content.

_____

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

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